Greetings!

On behalf of the Jefferson College of Health Sciences community, I would like to welcome you to our campus for the 2015-16 academic year.

Simply put, you know that you want a career in healthcare, and that you have many options to prepare for that career. Your choice to attend Jefferson College ensures you will receive a unique, specialized, hands-on experience that you won’t find anywhere else. You don’t come to Jefferson to get a degree in everything. But, you leave here ready for everything your career will demand.

I am confident that this year at Jefferson, you will:

**BE Inspired**

Our exclusive affiliation with Carilion Clinic, one of the most innovative health systems in the Virginia, gives you the opportunity to experience some of the most outstanding clinical learning environments in the country. And you get that experience right here in the heart of Roanoke in the beautiful Blue Ridge Mountains of Virginia.

**BE Challenged**

The health challenges that face our communities can’t be solved with yesterday’s solutions. Or even today’s. It takes people driven by what’s next—like YOU. At Jefferson College, we prepare you for a career that is vibrant and growing. You’re gaining expertise on innovative tools and technologies, and a jump on tomorrow’s opportunities.

**BE Prepared**

At Jefferson, you’ll gain the experience you need from faculty with real world experience in a variety of healthcare professions. Plus, you’ll have the opportunity to learn with some of the most talented people in healthcare today through our Interprofessional Education initiative. This concept allows you to interact with other students and healthcare professionals, which will prepare you to effectively function as part of an interprofessional team in clinical environments.

**BE Next**

At the intersection of education and healthcare, you’ll gain confidence and competence right from the start. With rigorous real-world learning and responsive academic support, you’ll be fully equipped to not only excel in healthcare, but to move your profession forward.

You’ll be inspired. You’ll be challenged. You’ll be prepared. You’ll be next!

We have prepared this Academic Catalog to help you navigate your way through your education at Jefferson. This publication includes information on academic programs, policies, procedures, departments, calendars and much more. It is intended to provide you with as much information as possible in a convenient, one-stop location. I would also advise you to consult with our very capable faculty and staff often if you have questions that are not answered in this Catalog.

Sincerely,

Dr. Nathaniel L. Bishop  
*President*  
*Jefferson College of Health Sciences*
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td>7</td>
</tr>
<tr>
<td>Jefferson Historical Timeline</td>
<td>8</td>
</tr>
<tr>
<td>Mission and Vision</td>
<td>10</td>
</tr>
<tr>
<td>Degree Programs</td>
<td>11</td>
</tr>
<tr>
<td>General Educational Competencies and Core Curriculum</td>
<td>12</td>
</tr>
<tr>
<td>Accreditation</td>
<td>15</td>
</tr>
<tr>
<td>The Jefferson Campus</td>
<td>17</td>
</tr>
<tr>
<td>Professional and Continuing Education at Jefferson</td>
<td>18</td>
</tr>
<tr>
<td>Undergraduate Programs at Jefferson</td>
<td>19</td>
</tr>
<tr>
<td>- Undergraduate Admissions</td>
<td>20</td>
</tr>
<tr>
<td>- College Admission Requirements</td>
<td>20</td>
</tr>
<tr>
<td>- Additional Program Specific Requirements</td>
<td>22</td>
</tr>
<tr>
<td>- Acceptance Notification</td>
<td>24</td>
</tr>
<tr>
<td>- Alternate Admissions</td>
<td>25</td>
</tr>
<tr>
<td>- International Students</td>
<td>25</td>
</tr>
<tr>
<td>- Readmission Policy</td>
<td>25</td>
</tr>
<tr>
<td>- Undergraduate Information, Policies and Procedures</td>
<td>27</td>
</tr>
<tr>
<td>- Academic Advising</td>
<td>27</td>
</tr>
<tr>
<td>- College Calendar</td>
<td>27</td>
</tr>
<tr>
<td>- Academic Honors</td>
<td>27</td>
</tr>
<tr>
<td>- President’s List</td>
<td>28</td>
</tr>
<tr>
<td>- Dean’s List</td>
<td>28</td>
</tr>
<tr>
<td>- Graduation Honors</td>
<td>28</td>
</tr>
<tr>
<td>- Academic Standards of Satisfactory Progress</td>
<td>28</td>
</tr>
<tr>
<td>- Academic Probation from a Program/Major</td>
<td>29</td>
</tr>
<tr>
<td>- Academic Dismissal from a Program/Major</td>
<td>29</td>
</tr>
<tr>
<td>- Academic Probation from the College</td>
<td>30</td>
</tr>
<tr>
<td>- Academic Dismissal from the College</td>
<td>30</td>
</tr>
<tr>
<td>- Accommodations for Students with Disabilities</td>
<td>30</td>
</tr>
<tr>
<td>- Add/Drop</td>
<td>30</td>
</tr>
<tr>
<td>- Advanced Placement Policies</td>
<td>31</td>
</tr>
<tr>
<td>- Advanced Placement Credit</td>
<td>31</td>
</tr>
<tr>
<td>- International Baccalaureate Credit</td>
<td>31</td>
</tr>
<tr>
<td>- Credit by Exam (CLEP and DANTES)</td>
<td>31</td>
</tr>
<tr>
<td>- Challenge Exams for General Education Courses</td>
<td>32</td>
</tr>
<tr>
<td>- Prior Learning Assessment</td>
<td>32</td>
</tr>
<tr>
<td>- Alcohol, Drug and Substance Abuse Policy</td>
<td>33</td>
</tr>
<tr>
<td>- Assessment/Outcomes Policy</td>
<td>33</td>
</tr>
<tr>
<td>- Attendance Policy</td>
<td>33</td>
</tr>
<tr>
<td>- Audit Policy</td>
<td>34</td>
</tr>
<tr>
<td>- Calculating Grade Point Average</td>
<td>34</td>
</tr>
<tr>
<td>- Catalog Policy/Rights Reserved</td>
<td>35</td>
</tr>
<tr>
<td>- Change of Major Request</td>
<td>35</td>
</tr>
<tr>
<td>- Matriculation Policy for Students with Advanced Placement or Transfer</td>
<td>36</td>
</tr>
<tr>
<td>- Course Cancellation</td>
<td>36</td>
</tr>
<tr>
<td>- Course Load Policy</td>
<td>36</td>
</tr>
<tr>
<td>- Credit Hours</td>
<td>36</td>
</tr>
<tr>
<td>- Course Definitions</td>
<td>37</td>
</tr>
<tr>
<td>- Traditional Courses</td>
<td>38</td>
</tr>
<tr>
<td>- Hybrid Courses/Blended</td>
<td>38</td>
</tr>
<tr>
<td>- Online Synchronous</td>
<td>38</td>
</tr>
</tbody>
</table>

© Jefferson College of Health Sciences, 2015
Table of Contents

- Online Asynchronous
- Experiential Courses
  - Dual Majors, Minors and Second Degrees 38
    - Dual Majors 38
    - Minors 38
    - Second Degrees 38
  - Emergency Class Cancellation 38
  - English Language Proficiency 39
  - Examinations 39
  - Failure to Meet Financial Obligations 39
  - Grades and Grading Policies 40
    - Grade Reports 40
    - Grading System 40
    - Grade Change Policy 41
    - Grade Forgiveness Policy 41
  - Graduation and Graduation Policies 42
    - Graduation Application 42
    - Graduation Ceremonies 42
    - Graduation Honors 42
    - Graduation Marshals 43
    - Graduation Requirements 43
  - Health Records and Clinical Rotation Requirements 44
  - Honor Code: Community Values and Standards 44
  - Independent Study Policy 44
  - Interprofessional Education/Interdisciplinary Studies 44
  - Jury Duty 45
  - Leave of Absence 45
  - Military Policy 45
  - Non-Discrimination Policy 48
  - Program or Major Specific Course 48
  - Publicity, Public Relations and Marketing Information 48
  - Registration 49
  - Responsibility of Student 49
  - Student Complaints/Grievance 50
  - Student Exit Form 50
  - Student Classification 50
    - According to Hours Enrolled 50
    - According to Hours Completed 51
    - According to Admission Status 51
  - Students’ Rights of Access to Their Educational Records 51
  - Transcripts 54
  - Transfer Credit 54
  - Transfer to Another Jefferson Program 55
  - Withdrawal 56
    - Add/Drop 56
    - Administrative Withdrawal 56
    - Directed Withdrawal 57
    - Voluntary Withdrawal 57
  - Undergraduate Program Descriptions 58
    - Bachelor of Science in Biomedical Science 59
    - Bachelor of Science in Emergency Services 63
    - Bachelor of Science in Health and Exercise Science 74
    - Bachelor of Science in Health Psychology 84

© Jefferson College of Health Sciences, 2015
# Table of Contents

- Bachelor of Science in Health Sciences 88
- Bachelor of Science in Healthcare Management 96
- Humanities and Social Sciences Program 107
- Bachelor of Science in Medical Laboratory Sciences 108
- Bachelor of Science in Nursing 112
- Bachelor of Science in Respiratory Therapy 125
- Associate of Applied Science in Occupational Therapy Assistant 131
- Associate of Applied Science in Physical Therapist Assistant 137
- Associate of Science in Surgical Technology 142

## Graduate Programs at Jefferson

- **Graduate Admissions**
- **Graduate Information, Policies and Procedures**
  - Academic Advising 158
  - Academic Honor Code and Personal Integrity 158
  - Academic Responsibility 158
  - Adding and Dropping Courses 159
  - Accommodations for Students with Disabilities 159
  - Catalog of Entry 159
  - Change in Program of Study 159
  - Course Load 159
  - Credit Hours 159
  - Emergency Class Cancellation 160
  - **Grading**
    - Grading Scale 160
    - Grade Point Average 161
    - Pass / Fail 161
    - Incomplete Status 161
    - Incomplete Extended 162
    - No Judgment 162
  - Grade Reports and Final Grades 162
- **Graduation**
  - Graduation Requirements 162
  - Application for Graduation 162
  - Commencement Exercises 163
  - Hooding Ceremony 163
- **Interdisciplinary Studies/Interprofessional Education** 163
- **Master's Scholarly Project** 164
- **Minimum Performance Standards for Admission and Progression** 164
- **Non-Degree Seeking Policy for Graduate Courses** 164
- **Readmission** 165
- **Reinstatement** 165
- **Standards of Satisfactory Academic Progress** 165
- **Student Complaints / Grievances** 165
- **Student Exit Form** 165
- **Students' Rights of Access to Their Educational Record** 166
- **Time Limit for Degree Requirement** 168
- **Transfer Credit** 168
- **Undergraduate Students Enrolling in Graduate Courses** 169
- **Withdrawal**
  - Withdrawal from a Course 169
  - Administrative Withdrawal 169
  - Withdrawal from the College 170
- **Graduate Program Descriptions**
  - Biology Graduate Certificate 173
### Table of Contents

- **Master of Healthcare Administration** 174
- **Healthcare Administration Graduate Certificate** 177
- **Healthcare Informatics Graduate Certificate** 178
- **Master of Science in Nursing** 180
- **Master of Science in Occupational Therapy** 185
- **Master of Science in Physician Assistant** 190

**Student Affairs** 196
- **Residence Life** 197
- **Student Life** 198
- **Security** 198
- **New Student Orientation** 198
- **Code for Student Conduct** 198
- **Counseling Services** 199
- **PASS (Pathways to Academic Success)** 200
- **Learning and Writing Center (LWC)** 201
- **Services for Students with Disabilities** 201
  - **Student Discrimination Complaint Procedure** 202
  - **Disability Grievance Procedure** 203

**Student Technology Use Policies** 205
- **Technology Account Policy** 205
- **College Owned Computers and Computer Labs** 205
- **Electronic Communications Policy** 206
  - **Expectations Regarding Student Use of Electronic Communications** 206
  - **Faculty Expectations and Educational Uses of E-mail** 207
  - **Appropriate Use of Student Electronic Communications** 207
  - **Privacy of Electronic Communications** 207
  - **Misuse of Electronic Communications Systems** 207
- **Students Living in Residence Halls** 208

**Financing Your College Education** 209
- **Bursar’s Office** 210
  - **2015 – 2016 Tuition Chart** 210
  - **2015 – 2016 Fees and Incidentals Chart** 211
  - **Billing Procedure** 212
  - **Payments and Payment Plan** 212
  - **Returned Checks** 213
  - **Tuition Refund Policy** 213
  - **Refund and Repayment Policies and Procedures** 213
  - **1098-T Information** 213
  - **Refunds for Residence Hall Rooms** 214
- **Financial Aid** 214
  - **School Code** 215
  - **Completing the Financial Aid Steps** 215
  - **Financial Aid Sources** 217
  - **Student Loans** 218
  - **Tracking the Status of Your Loan** 220
  - **Entrance and Exit Interviews** 220
  - **Aid for International Students** 220
  - **Financial Aid Links** 220
  - **Return of Title IV Policy** 220
  - **Order of Return of SFA Program Funds** 220
  - **Satisfactory Academic Progress for Continuance of Financial Aid** 221
  - **Appeal Process for Students on Financial Aid** 222
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Reinstatement Process</td>
<td>222</td>
</tr>
<tr>
<td>Student Withdrawals and Refunds</td>
<td>223</td>
</tr>
<tr>
<td>Add/Drop</td>
<td>223</td>
</tr>
<tr>
<td>Withdrawal Date</td>
<td>223</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>224</td>
</tr>
<tr>
<td>Jefferson Faculty and Staff</td>
<td>320</td>
</tr>
<tr>
<td>College Calendar</td>
<td>343</td>
</tr>
</tbody>
</table>
General Information

Jefferson College of Health Sciences is a professional health sciences college, offering the Master of Healthcare Administration, Master of Science in Nursing, Physician Assistant and Occupational Therapy, and a variety of baccalaureate and associate degree healthcare programs.

With excellent licensure pass rates in our professional programs, and with high student satisfaction ratings, we are proud to be one of the few private healthcare colleges in the southeastern United States.

We enroll approximately 1,100 students annually from across the United States, including approximately 225 graduate students. Our faculty body consists of approximately 80 full-time faculty which provides students better access to their professors. Although the student-to-faculty ratio varies by program and by classroom/clinical setting, the overall ratio is 12 students to 1 faculty member.

We offer excellent clinical opportunities, extensive online learning offerings, and continuing education and volunteer opportunities near campus and abroad.

Approximately 95 percent of our students receive financial aid. Academic merit scholarships and grants are also available, ranging in value from $1,000 to $8,000 renewable awards, and in length from the first year only to renewable for four years. Scholarships, loans, grants and the Federal Work-Study Program can be applied for through the Free Application for Federal Student Aid (FAFSA). We participate in the Carilion Clinic Tuition Advancement Program for our undergraduate and graduate critical need programs, as designated by Carilion Clinic. Students must be an employee of Carilion Clinic to apply for this benefit.
Jefferson College of Health Sciences Historical Timeline

- **1907:** Jefferson Hospital, a 40-bed facility, is founded by Dr. Hugh Trout, Sr., an early pioneer of healthcare in the Roanoke Valley.

- **1911:** To avoid a shortage of trained nurses, Dr. James Newton Lewis and Dr. Sparrell Simmons Gale found the Lewis-Gale School of Nursing in downtown Roanoke. In 1914, Dr. Trout creates the Jefferson Hospital School of Nursing.

- **1953:** At age 26, Mr. William Reid becomes administrator for Jefferson Hospital.

- **1965:** Construction begins on a new hospital, Community Hospital, situated on the corner of Jefferson and Elm Streets. The hospital opens in 1967 under the leadership of Mr. William Reid. The Jefferson Hospital School of Nursing and the Lewis-Gale School of Nursing decide to combine their educational resources. The new nursing school is named the Community Hospital of the Roanoke Valley School of Nursing and the first class graduates in 1968.

- **1982:** The School is certified by the State Council of Higher Education for Virginia (SCHEV) as the Community Hospital of Roanoke Valley College of Health Sciences, making it the first hospital-based college in Virginia to offer Associate Degrees. The first programs offered are in Nursing and Respiratory Therapy and the first class graduates in 1985. Subsequently, the new College achieves regional accreditation from the Southern Associations of Colleges and Schools in 1986.

- **1989:** Community Hospital of the Roanoke Valley is acquired by Roanoke Memorial Hospital leading to the formation of Carilion Health System in the early 1990s. Also in 1989, the College names its first president, Dr. Harry C. Nickens. Dr. Nickens was a leader in the Roanoke community for over 20 years and served as president until 2001.

- **1992:** Mr. William Reid announces his retirement from Community Hospital and the Carlton Terrace Building, home to the Community Hospital of Roanoke Valley College of Health Sciences, is renamed the Reid Center in his honor. Mr. Reid, former Chair of the College Board of Directors, continues to serve on the Board today.

- **1995:** The College continues to expand its programs and is accredited by the Southern Association of Colleges and Schools to begin offering baccalaureate degrees.

- **2002:** College welcomes its second president, Dr. Carol Seavor.
• **2003**: Community Hospital of the Roanoke Valley College of Health Sciences changes its name to **Jefferson College of Health Sciences** in honor of its founding as the Jefferson Hospital School of Nursing.

• **2005**: Jefferson College of Health Sciences is granted membership at Level III by the Southern Association of College and Schools Commission on Colleges, which allows the College to offer master’s degrees. The first master’s degree is offered in Nursing, with the inaugural class graduating in 2007. In 2008, Jefferson begins offering master’s programs in Occupational Therapy and Physician Assistant.

• **2006**: Carilion Health System is transformed into **Carilion Clinic**. By 2007, its two Roanoke hospitals are consolidated into the greatly expanded Carilion Roanoke Memorial site and plans to renovate Carilion Roanoke Community Hospital into academic space for the College are formed.

• **2010**: Dr. Carol Seavor retires. Among her accomplishments were nearly doubling the student body and expanding academic programs to 13 in less than a decade.

• **2011**: **Dr. Bishop** is formally inaugurated as the third President of Jefferson. Dr. Bishop previously served as the Vice President of Facility and Guest Services at Carilion Medical Center. One of his first achievements is to successfully complete the move of the College from the Reid Center into newly renovated space in Carilion Roanoke Community Hospital.

• **2012**: Jefferson reaches new highs in student enrollment, welcoming approximately 1,100 students to campus in on the graduate, baccalaureate and associate levels.

• **2015**: Jefferson College, Radford University, and Virginia Tech Carilion School of Medicine enter into a public/private partnership creating the **Virginia Intercollegiate Anatomy Lab (VIAL)**. This state of the art anatomy lab is housed on the 8th floor of Jefferson College.
Mission and Vision

The mission and vision of Jefferson College of Health Sciences provide the foundation for the academic endeavors of the institution. These statements reflect the College’s commitment to the learning process and the expanding global climate of healthcare and education.

**Mission**
Jefferson College of Health Sciences prepares, within a scholarly environment, ethical, knowledgeable, competent, and caring healthcare professionals.

We believe that excellence in education encompasses all delivery methods and promotes:

- Interdisciplinary and Interprofessional learning;
- Diversity of person and thought;
- Personal and professional integrity;
- Commitment to life-long learning;
- Advancement of knowledge through scholarship;
- Holistic development of the individual;
- Participation in the local and global community.

**Vision**
Jefferson College of Health Sciences will be nationally recognized as an institution of choice for education in the healthcare professions.
Degree and Certificate Programs

Jefferson College of Health Sciences offers the following degree and certificate programs:

**Graduate Programs**
- Master of Healthcare Administration
- Master of Science in Nursing
- Master of Science in Occupational Therapy
- Master of Science in Physician Assistant

**Graduate Certificate**
- Bioethics
- Biology
- Healthcare Administration
- Healthcare Informatics

**Baccalaureate Programs**
- Bachelor of Science in Biomedical Sciences
- Bachelor of Science in Emergency Services
- Bachelor of Science in Health and Exercise Science
- Bachelor of Science in Health Sciences
- Bachelor of Science in Healthcare Management
- Bachelor of Science in Health Psychology
- Bachelor of Science in Medical Laboratory Science
- Bachelor of Science in Nursing
- Bachelor of Science in Respiratory Therapy

**Associate Programs**
- Associate of Applied Science in Occupational Therapy Assistant
- Associate of Applied Science in Physical Therapist Assistant
- Associate of Applied Science in Surgical Technology

**Undergraduate Minors (Program area)**
- Biology (BioMed)
- Exercise Science (HES)
- Forensic Science (HS)
- Healthcare Humanities (HUM)
- Healthcare Organization Management (HCM)
- Health Promotion (HES)
- Health Studies (HS)
- Psychology (Hlth Psy)
- Public Health (HS)

**Undergraduate Certificate**
- Medical Laboratory Science
- Medical Practice Management
General Educational Competencies and Core Curriculum

The Jefferson College of Health Sciences Core Curriculum is designed to ensure that each degree offered includes a general education component designed to provide a breadth of knowledge from humanities and fine arts, social and behavioral sciences, and natural sciences and mathematics. In combination with the courses specific to the student’s program of study, the Jefferson Core Curriculum prepares graduates to meet the following general education competencies:

- Demonstrate proficiency in the application of mathematical reasoning for problem solving,
- Use critical thinking that reflects appropriate evidence, ideas, and models for use in decision making, and
- Communicate effectively in writing, speaking, and through use of appropriate technology.
**Associate Degree Core Curriculum**

*Students must complete each of the requirements described below.*

<table>
<thead>
<tr>
<th>Associate of Science Core Requirements*</th>
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</tr>
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<tbody>
<tr>
<td><em>Courses that focus on skills, techniques, and procedures specific to the student’s major are not accepted as part of the core.</em></td>
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</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Humanities/Fine Arts</th>
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<td>PHL 115</td>
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<td>ENG 111</td>
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<table>
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<th>Natural Science/ Mathematics</th>
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<td>Natural Science OR Math</td>
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<tr>
<th>Social/Behavioral Sciences</th>
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<th>Other</th>
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<tr>
<td>IPE 200</td>
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**Total** 17 Hours
Baccalaureate Degree Core Curriculum

Students must complete coursework from each of the categories described below for a minimum of 30 credits

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<th>Bachelor of Science Core Requirements*</th>
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<td>ENG 111</td>
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<td>PHL 115</td>
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<tr>
<td>Literature</td>
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<td>Natural Sciences/Mathematics</td>
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<td>Natural Science</td>
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<tr>
<td>Math OR Natural Science</td>
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<td>Social/Behavioral Sciences OR Humanities Electives</td>
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<td>Total</td>
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</table>
Accreditation

Jefferson College of Health Sciences is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate and master's degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia, 30033-4097 or call 404-679-4500 for questions about the accreditation of Jefferson College of Health Sciences.

Jefferson College of Health Sciences is certified by the State Council of Higher Education for Virginia (SCHEV) to operate campuses in Virginia.

In addition to institutional accreditation, the following programs maintain professional accreditation and/or approval:

- The Emergency Services program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation for Emergency Medical Services Professions (CoAEMSP).
  - CAAHEP, 1361 Park Street, Clearwater, FL 33756, Phone: 727-210-2350, www.caahep.org
  - CoAEMSP, 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75099, Phone 214-703-8445

- The Emergency Services program is also accredited by the Virginia Department of Health Office of Emergency Medical Services (VAOEMS) (1041 Technology Park Drive, Glen Allen, Va. 23059, phone 1-800-523-6019).

- The Medical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119. Website: www.naaccs.org

- The Baccalaureate and Master's Degree Nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, NW, Suite 530, Washington, DC, Phone: 202-887-6791.

- The Pre-licensure Baccalaureate Nursing programs are approved by the Virginia Board of Nursing, Perimeter Center, 9960 Maryland Drive, Suite 300, Richmond Virginia 23223-1463, Phone: 804- 367-4515, Fax: (804) 527-4455, Complaints: (800) 533-1560, E-mail: nursebd@dhp.virginia.gov, website: http://www.dhp.state.va.us/nursing.

- The Occupational Therapy and Occupational Therapy Assistant programs are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Suite 200,
Bethesda, Maryland, 20824-1220. AOTA’s phone number is (301) 652-2682. Websites: [www.aota.org](http://www.aota.org) and [www.acoteonline.org](http://www.acoteonline.org). Upon graduation from this program graduates must sit for a national registry exam administered by the National Board for Certification in Occupational Therapy (NBCOT). Their offices are located at 12 S. Summit Avenue, Suite 100, Gaithersburg, Maryland, 20877-4150. NBCOT’s phone number is (301) 990-7979. Website: [www.nbcot.org](http://www.nbcot.org).

- The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), 1111 North Fairfax Street, Alexandria, VA 22314, Phone 703/684-3245, e-mail, accreditation@apta.org, website: [http://www.capteonline.org](http://www.capteonline.org).

- The Physician Assistant program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA), 12000 Findley Rd. Suite 240 Duluth, GA 30097, Phone 770-476-1224.

- The Respiratory Therapy program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244, Phone 817-283-2835.

- Application has been made for accreditation of the Surgical Technology Program from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA) for the first cohort of students to be board eligible to take the Certified Surgical Technologist (CST)® exam through the National Board of Surgical Technology and Surgical Assisting (NBSTSA).
Jefferson College of Health Sciences Campus

Jefferson College of Health Sciences is located in historic and beautiful downtown Roanoke, within walking distance of numerous restaurants and one of the oldest outdoor markets in Virginia. The College is less than a mile from Carilion Roanoke Memorial Hospital, the Virginia Tech Carilion School of Medicine and Research Institute, and numerous other outstanding clinical sites.

The main College campus includes the Carilion Roanoke Community Hospital (CRCH) building, and the Patrick Henry which encompasses our residence hall. In addition, there is a parking garage and additional parking lots available in several adjacent areas.

Classrooms throughout the campus are wired for Internet access. Labs for both clinical and science based courses are equipped with the latest technology to prepare students to work in today’s healthcare environment. The library provides access to the latest print and electronic resources supporting healthcare education. The library area also includes a computer lab, student testing, and tutorial areas.

The Jefferson College Bookstore, located on the 4th floor of the CRCH building, offers not only the books and materials needed for classes and clinics, but also shirts, jackets and other items with the College logo.
Professional and Continuing Education

Jefferson College of Health Sciences’ Professional and Continuing Education provides non-college credit bearing courses and seminars that support the mission of the College. The courses and seminars are designed to provide lifelong learning opportunities for healthcare professionals or provide entry level professional knowledge and skills necessary for individuals desiring to enter the healthcare workforce.

The College offers a variety of professional and personal development programs. These programs can be found by visiting www.jchs.edu and clicking on the admissions section of the website. A list of available courses along with descriptions and application processes can be found under the Professional and Continuing Education section.

The College is approved to offer Continuing Education Units (CEUs) for courses that meet the required criteria. Additionally, programmatic recognition and or accreditation is maintained for all courses that require either approval or accreditation status.
Undergraduate Programs at Jefferson
Undergraduate Admissions

Jefferson College of Health Sciences provides superior interprofessional healthcare education which enables our graduates to meet the demands of their chosen healthcare profession. We look for students who have a mind for science and a heart for people. We accept students who thrive on the challenge of a rigorous academic environment and the thrill of caring for people. Our students bring diverse talents to the Jefferson College community through their academic and professional experience, volunteer service, and extracurricular activities. We welcome international students, students from all over the United States, and students from right here in the Roanoke Valley. Members of our campus community share a common bond: they care about people. We invite you to schedule a campus tour to meet us personally by e-mailing the Office of Admissions (admissions@jchs.edu). We are happy to put you in touch with students, faculty, and program directors.

When you decide to become a Jefferson College student, your first step will be to apply, and you may be interested to see if you qualify for our merit-based scholarships and grants. These are based upon your transfer grade-point average (GPA) or your high school GPA and your Scholastic Aptitude Test (SAT) or ACT scores. Use the scholarship calculator on the college website to get an early idea of the amount you could receive when your previous coursework has been verified.

Jefferson College of Health Sciences uses a modified rolling admissions process. The College begins receiving applications in July and processes them throughout the academic year. Application review begins in the fall with early action in November. Applicants who submit complete applications (see Application Procedure) by November 1, will be reviewed for early admission. Early action letters will be mailed by November 15. Regular admissions review begins January 15 and continues on a rolling basis until programs are full. Jefferson College of Health Sciences admits to programs, and space within each program is limited. Applications and all supporting documents should be received as soon as possible. The Accelerated Pre-licensure Bachelor of Science in Nursing, Occupational Therapy Assistant, and the Physical Therapist Assistant programs use their own admissions calendars, and students who are interested in these programs should refer to the Additional Program Specific Admissions Requirements section below.

Students who need to request transcripts from their high school or any colleges attended may download a Transcript Request Letter in Word format from our website that will help expedite this critical step.

College Admission Requirements

Students who are interested in Graduate Studies should refer to the Graduate Information section of this catalog for admission requirements.
Incoming undergraduate students must have completed a core of selected high school or college courses, and recent high school graduates (within the past three years; based upon date of entry) should provide SAT or ACT scores (SAT Code 5099, ACT Code 4367).

The following eight units of specific academic coursework are required for admission. A unit is defined as one year of high school study or one semester of college-level coursework. All core coursework must be completed with a grade of “C” or better.

Core Courses:

- **English** 4 units
- **Mathematics** 2 units including Algebra 1 and Algebra 2 (or geometry)
- **Biology** 1 unit (may substitute college-level anatomy & physiology)
- **Chemistry** 1 unit (may substitute college-level anatomy & physiology)

**Applicant Types:**

- **Traditional Students** are recent high school (public or private) graduates from within the past three years (based upon date of entry).
- **Home-Schooled Students** have completed a secondary school education in a home-school environment that qualifies as an exemption from compulsory attendance requirements under state law. If needed, the Jefferson College of Health Sciences Official Home School Transcript form can be downloaded from our website.
- **Transfer Students** have completed at least 12 credit hours of college coursework at a regionally accredited college or university.
- **Non-Traditional Students** hold a high school diploma from a date prior to the past three years.
- **Non-Degree-Seeking Students** seek to take one or two classes at Jefferson College of Health Sciences without applying to a degree program. The online application is the only document required for this applicant type.

**Application Procedure**

Application for admission may be made upon the completion of the junior year in high school and preferably no later than 30 days in advance of the enrollment term.
Completed applications must include:

- The online application.
- Official high school and/or college transcripts (from all institutions attended) or copy of the General Equivalency Diploma (GED) as applicable. If the applicant holds a bachelor’s degree, a high school transcript is not required, unless it is needed to support the above prerequisite core coursework.
- SAT or ACT scores if applicable.
- Any additional program-specific requirements.

Transfer Credits

A student will receive credit for those courses (taken at a regionally accredited college or university) that are comparable to Jefferson courses and in which at least a grade of “C” was earned. The Registrar’s Office evaluates each transcript on an individual basis, and prospective students will receive a “Transfer Credit Evaluation” from the Office of Admissions. The Registrar determines transfer courses that meet the College’s general education requirements. The director of the program to which the applicant applies will evaluate program-specific coursework. Please refer to “Transfer Credit” in the Undergraduate Information Policies and Procedures section of this catalog.

Additional Program Specific Admission Requirements

Some of our professional programs have additional requirements that are beyond the scope of the basic requirements for admission to the College. The following list explains these requirements. If your intended program of study is not listed, there are no additional requirements to be met beyond the basic college admission requirements.

**Bachelor of Science in Emergency Services**

- Must be 18 years of age or older prior to the start of the second semester.
- Must have current Virginia EMT-Basic certification (reciprocity is available from other states) prior to the start of the second semester.
- Must have current Virginia FF I certification (reciprocity is available from other ProBoard states) prior to the start of the fourth semester.

**Bachelor of Science in Nursing**

**Accelerated Pre-licensure BSN Track**

- The deadline for receipt of completed applications is January 15 for the Fall cohort and July 1 for the Spring cohort.
- External applicants for this program will receive priority admission over students currently matriculated in a Jefferson Nursing program.
• Baccalaureate degree from a regionally accredited institution with a GPA of 2.7 or higher.
• Completion of the following pre-requisite coursework:
  - 3 credit Social/Behavioral Sciences
  - 4 credit Anatomy and Physiology I and II
  - 4 credit Microbiology
  - 3 credit Humanities elective
  - 9 credits English (Grammar and Composition I, II, and Literature)
  - 3 credit Nutrition
  - 3 credit Foundations of Ethics
  - 3 credit Lifespan Development
  - 3 credit Introductory Statistics
  - 3 credit Pathophysiology (may be taken 1st semester)
• Writing sample, one page or less, double-spaced, 12-font on the following topic:
  *Please describe your motivation for pursuing a BSN degree and why you want to do so at Jefferson College of Health Sciences.*
• Resume documenting previous education and work experience.
• Completion of all prerequisite coursework by the end of the semester preceding the cohort start.

Pre-licensure BSN Track
Students who have failed two prior nursing courses are not eligible for admission until after a two-year period has elapsed since the last nursing course failure. Minimum of 2.50 GPA required.

Post-licensure RN-BSN Track
• Associate Degree or Diploma in Nursing
• Active and unencumbered license as a Registered Nurse from any state or territory of the United States

Bachelor of Science in Respiratory Therapy (Junior level transfer)
• Cumulative transfer GPA of 2.5 or higher
• Completion of the first two years of plan of study (exceptions by Program Director approval)
• Based on space availability (internal candidates maintain priority)

Associate of Applied Science in Occupational Therapy Assistant
• The deadline for receipt of completed applications is December 15.
• GPA of 2.5 or higher.
• Documentation of attendance at an on-campus or online information session. The online OTA information session may be found on the Jefferson OTA web page at [www.jchs.edu/degree/associate-applied-science-occupational-therapy-assistant](http://www.jchs.edu/degree/associate-applied-science-occupational-therapy-assistant).
• A Portfolio supporting the applicant’s admission to the program should be submitted in paper format, but not in a hard binder. The
portfolio should document the applicant’s experience, achievements, and growth. Any items that applicants consider to be representative of their efforts and achievements will be accepted including personal statements. Common portfolio items may include but are not limited to: resume, healthcare exposure (identify profession; setting; paid, unpaid, or as a patient; number of hours), community service including estimated number of hours, leadership experience, examples of performance excellence, sample works, honors, awards, special projects, and letters of recommendation.

- Following review of the above program admission requirements, selected applicants will be invited for an on-campus interview and essay to determine the final selection of members of the class.

**Associate of Applied Science in Physical Therapist Assistant**

- The deadline for receipt of completed applications is December 15.
- GPA of 2.5 or higher.
- Documentation of attendance at an on-campus or online information session. The online PTA information session may be found on the Jefferson PTA web page at www.jchs.edu/degree/associate-applied-science-physical-therapist-assistant.
- A Portfolio supporting the applicant’s admission to the program should be submitted in paper format, but not in a hard binder. The portfolio should document the applicant’s experience, achievements, and growth. Any items that applicants consider to be representative of their efforts and achievements will be accepted, including personal statements. Common portfolio items may include but are not limited to: resume, healthcare exposure (identify profession; setting; paid, unpaid, or as a patient; number of hours), community service including estimated number of hours, leadership experience, examples of performance excellence, sample works, honors, awards, special projects, and letters of recommendation.
- Following review of the above program admission requirements, selected applicants will be invited for an on-campus interview and essay to determine the final selection of members of the class.

**Associate of Applied Science in Surgical Technology**

Students must have completed prerequisite courses, BIO 211/211L and HLT 215 with a C or better prior to taking surgical technology (SUR) courses.

**Acceptance Notification**

Application processing time varies depending on completion of the application requirements.

- During application review, each applicant is considered individually and a decision is made to accept or deny the application, or refer the applicant’s file for Alternate Admissions consideration.
If the noted program is full, qualified applicants are placed on a wait list for future consideration.

The Office of Admissions will notify you by mail. All accepted applicants are required to reply to offers of admission and must submit a deposit to secure a place in their program. The College reserves the right to deny admission to any applicant when such denial is determined to be in the best interest of the College.

Alternate Admissions

Applicants who do not meet the minimum requirements for admission may be referred to the Alternate Admissions process for further consideration. Applicants may be required to participate in additional assessment options in order to determine their potential for success.

International Students

Jefferson College of Health Sciences welcomes international applications and is authorized by federal law to enroll non-immigrant alien students. All international students need a Form I-20 in order to obtain an F-1 student visa to study in the United States. Jefferson College of Health Sciences provides assistance in this process. International students are responsible for maintaining legal status while living in the United States.

Your completed application should include:

- USD $250 application fee
- The Jefferson application
- Official transcripts- Secondary school transcripts must be mailed by the school official and must display the secondary school's official stamp or seal. College transcripts must be mailed to Jefferson College of Health Sciences by the college official and must display the college's official stamp or seal. The applicant also must have an evaluation of the transcripts completed by a foreign credential evaluation service and sent to Jefferson College of Health Sciences. To receive a list of recommended services, please send an e-mail request to: admissions@jchs.edu.
- English proficiency demonstrated by a minimum Test of English as a Foreign Language (TOEFL) score of 550 (paper-based), 213 (computer-based) or 80 (web-based)
- Documentation that all financial responsibilities will be met.

Readmission Policy

Students who have not attended the College for the three preceding semesters must reapply through the admissions department. Students who meet the criteria below must adhere to the following policies.

- After Graduation- Graduates from one academic program who wish to enter another Jefferson academic program must go through the College’s general admission procedure. Application fees will be waived for students who apply for admission to a different program within twelve
months of their graduation.

Military - Refer to Military Policy for Readmissions

**Readmission After Withdrawal, Probation, or Dismissal**

**Reinstatement After Voluntary Withdrawal from Program**
Any former student, while in good standing, seeking reinstatement in a program within one academic year of withdrawal must submit a letter of request to the Program Director. Reinstatement will be subject to available space in the program and specific program criteria. Any former student seeking reinstatement in a program after more than twelve months must reapply and go through the College’s general admission procedure.

**Reinstatement After Program Probation**
Any student on program probation (suspended from professional course sequence) may be permitted to continue in general education courses. Any student desiring to re-enroll must submit a letter of request to the Program Director in accordance with specific program deadlines. Reinstatement is contingent on available space and program criteria.

**Readmission After Program Dismissal**
Any student receiving two unsatisfactory grades in any professional courses will be dismissed from the program. A student may petition for readmission to that program, depending on program policy. The petition must be in writing and should include evidence of remediation or change in personal circumstances that would lead to a higher likelihood of success. A personal interview with the Program Director may be required. A student may apply only once for readmission to a professional program. A student may continue to take non-program courses.

**Readmission Following Academic Dismissal**
Students who are academically dismissed from the College and who wish to apply for readmission should refer to *Readmission after Academic Dismissal*, in the Undergraduate Admissions section of the catalog.

**Readmission Following Administrative Dismissal**
Circumstances surrounding the administrative dismissal of any student will be a determining factor in whether readmission can be considered. Students seeking readmission should refer to the Student Handbook and their specific dismissal letter for instructions regarding readmission.

- No student dismissed for the following reasons will be considered for readmission:
  - Evidence of being under the influence of, or excessive use of, alcohol, drugs, chemicals or any other type of mind-altering substances in a clinical environment
undergraduate programs at jefferson

- Conviction of a felony
- Diversion of supplies, equipment or drugs for personal or other unauthorized use
- Abuse, neglect or abandonment of patients
- Violation of the policies of clinical agencies
- Violation of a safety rule or a safety practice

undergraduate information, policies and procedures

academic advising

jefferson college of health sciences, through academic advising offers every student the opportunity for individualized assistance. upon acceptance, all students are assigned an academic advisor.

faculty members are responsible for assisting students in developing academic plans that will help the students reach their goals. although students must bear ultimate responsibility for meeting graduation requirements, the faculty advisor plays an essential supporting role.

the program director approves advisor assignments. the academic advising handbook provides detailed information on advising policies and procedures. students are strongly encouraged to seek advice from their faculty advisor before making academic decisions that will affect their progress toward a degree.

college calendar

jefferson college of health sciences utilizes a semester system. fall and spring semesters equal 15 weeks each and summer semester equals 11 weeks. final examinations and clinical evaluations are scheduled during the last week of the semester. a full academic calendar is published annually in the college catalog and website.

academic honors

academic honors are recognized at jefferson college of health sciences through the publication of a dean’s list and a president’s list and through designated honors noted on the graduate’s diploma.
President’s List
The College recognizes and honors students who have achieved outstanding scholastic records by publishing a President’s List each term. Full-time students who

1) complete all pass/fail courses successfully;
2) earn a term grade point average (GPA) of 3.800 to 4.000;
3) have no semester grade lower than a “C”; and
4) have no incomplete coursework.

are named to the President’s List. Courses that are taken with pass/fail grades are not used in the computation of the GPA.

Dean’s List
The College recognizes and honors students who have achieved outstanding scholastic records by publishing a Dean’s List each term. Full-time students who

1) complete all pass/fail courses successfully;
2) earn a term grade point average (GPA) of 3.400 to 3.799;
3) have no semester grade lower than a “C,”; and
4) have no incomplete coursework.

are named to the Dean’s List. Courses that are taken with pass/fail grades are not used in the computation of the GPA.

Graduation Honors
To graduate with honors, a student must achieve the following cumulative grade point average on all credit work attempted at Jefferson College of Health Sciences.

Cum laude
Any student who has completed a formal degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.400 to 3.599 will be designated as graduating cum laude.

Magna cum laude
Any student who has completed a formal program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.600 to 3.799 will be designated as graduating magna cum laude.

Summa cum laude
Any student who has completed a formal program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.800 to 4.000 will be designated as graduating summa cum laude.

Academic Standards of Satisfactory Progress
All students at Jefferson College of Health Sciences are expected to achieve
consistent progress toward completion of a program. Exhibiting such progress is necessary to remain in good academic standing and to remain eligible to receive financial aid.

All students are required to maintain a cumulative Grade Point Average (GPA) of at least 2.0 and complete at least two-thirds (67%) of all credit hours attempted.

Successful completion of a course is defined as earning a grade of "A," "B," "C," "D," or "P." A grade of "W" in any course is not considered successful completion. Exception: All professional courses must be completed with a minimum of "C" or equivalent.

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**Academic Probation from a Program / Major**

Should a student earn less than a minimum grade of "C" in an academic program-specific course or clinical, the student will be placed on program probation and may be ineligible to take further program-specific courses. When the student completes the course with a grade of "C" or better or "passing," probationary status will be removed. If the student is otherwise eligible to remain at the College during program probation the student may continue to be enrolled in general education courses and may retake the course during the next academic session in which the course is offered.

**Academic Dismissal from a Program/Major**

An unsatisfactory evaluation is a program-specific* course grade of “D” or “F” and/or a clinical grade of "failure." Should a student earn two unsatisfactory final grades at any time in program-specific courses, program dismissal will result. Successfully repeating a program-specific course does not eliminate the initial unsatisfactory grade, which will still count in the accumulation of two unsatisfactory evaluations.
* Students should consult their program’s handbook for “program-specific” courses. Upon written notification of program dismissal, the student’s status will be changed by the Registrar’s office to “non-degree” status. While in “non-degree” status the student will be ineligible for financial aid. The student will be advised by a counselor in the Student Affairs Department and then may submit a Change of Major Request form for another major. If a student wishes to initiate a Change of Major Request for a subsequent semester, the approved request must be submitted to the Registrar’s office by the last date of the add-drop period of that semester.

**Academic Probation from the College**

If a student fails to meet the GPA or credit hour requirement, he/she will be placed on academic probation by the College. All students on academic probation will be automatically referred to the PASS program and may be required to participate in an academic contract.

**Academic Dismissal from the College**

Academic dismissal from the College will occur if, at the end of the probationary semester, the student’s cumulative grade point average is still below 2.0 or the student fails to complete at least two-thirds (67%) of all credit hours attempted. However, if the student achieves a semester grade point average of 2.0, the student may, at the discretion of the Dean for Academic Affairs, be continued on academic probation for an additional semester.

**Accommodations for Students with Disabilities**

The College is committed to serving students with disabilities by providing appropriate accommodations in compliance with federal and state regulations. Please refer to Services for Students with Disabilities under Student Support Services in this catalog.

**Add/Drop**

During the Add/Drop period, it is the student’s responsibility to add or drop classes via his/her Self Service account. A full refund, if applicable, for each class dropped will be made to the student provided the student drops the course(s) in Self Service by the deadline published in the College Calendar for the “Last day to add a class or drop a class with a refund.”

A student enrolled in only one class who then drops this class will be considered “Withdrawn” and will be subject to the tuition policy for students who withdraw from Jefferson. (See Tuition Refund Policy in the “Finances” section of the Catalog).
Failure to properly drop a class will result in the student being charged for the course and receiving an “F”. Students who fail to show up for a class are not automatically dropped from a course.

After the Add/Drop deadline, a student may withdraw from a class or classes according to the policies and procedures outlined under Withdrawal in this section of the catalog.

**Advanced Placement Policies**

The Registrar is responsible for the review, evaluation and granting of advanced placement credit. For advanced placement information regarding individual programs, refer to the advanced placement policies listed under the individual program headings in this catalog.

**Advanced Placement Credit**

Students who have completed advanced work in high school and have taken the Advanced Placement (AP) tests given by the College Board may be awarded college credit for designated subjects, provided their AP test score is 3 or above.

**International Baccalaureate Credit**

Students who have a core of 4 or higher on the International Baccalaureate (IB) examination and a score of 5 or higher on the IB higher-level examination may be awarded college credit for designated subjects.

**Credit by Exam (CLEP and DANTES)**

Jefferson College of Health Sciences participates in the College-level Examination Program (CLEP), a national program sponsored by the College Entrance Examination Board, and the Defense Activity for Non-Traditional Education Support (DANTES).

The CLEP and DANTES examinations offer any student an opportunity to earn college credit for college-level achievement acquired outside the conventional classroom. The student should contact the Registrar for a list of approved CLEP and DANTES examinations.

The following policies apply to the use of CLEP and DANTES examinations at Jefferson College of Health Sciences:

1. No more than 18 semester hours may be satisfied through CLEP/DANTES examinations.

2. CLEP/DANTES credit will not be awarded for courses in which the student has previously received a grade below “C” at either Jefferson College of Health Sciences or elsewhere.
3. Official results must be submitted by the College Entrance Examination Board (CEEB) to the Registrar’s Office to be considered for CLEP credit at Jefferson. Official results from the Chauncey Group International must be submitted to be considered for DANTES credit.

4. The Registrar will coordinate the determination and award of CLEP/DANTES credit.

5. The CLEP/DANTES credit is treated the same as transfer credit and is not computed in the Grade Point Average.

6. Unsatisfactory scores will not be recorded on the student’s transcript.

7. The minimum score accepted for CLEP is 50 and reflects the recommendations of the American Council on Education.

The minimum score for DANTES varies based upon the recommendations from the Chauncey Group International. The Registrar maintains a list of these scores.

**Challenge Exams for General Education Courses**

1. Students wishing to take a challenge exam should contact the Registrar’s office for availability and scheduling.

2. The student who fails a course cannot challenge that same course.

3. The student may challenge a course only once.

4. The student must attain a passing score.

5. The student is responsible for paying test fees as well as fees for College credit if he/she passes the examination. (see the “Bursar’s office” section of this catalog.)

6. Students wishing to undertake a challenge exam must schedule the examination with the program responsible for the course with the program secretary.

7. Credit by exam will not count toward financial aid hours and cannot be used to defer loans.

**Prior Learning Assessment**

Prior Learning Assessment (PLA) is an academic process of identifying, documenting, and awarding college credit for a student’s previous knowledge and skills. These experiences could occur through the following:

1. Workplace training
2. Volunteer activities
3. Civic duties
4. Major life experiences
5. Lifelong learning

Through this process, the student analyzes their past experiences and develops a portfolio documenting how those learning experiences met learning objectives of a specified course(s). Development of a PLA portfolio is facilitated by taking PLA 200. The portfolio is then evaluated by an appointed team to determine whether credit is awarded.

PLA credit is not available for courses that offer a CLEP, DANTES or challenge exam. More information on the PLA process can be found on the Jefferson website.

**Alcohol, Drug, and Substance Abuse Policy**

Jefferson College of Health Sciences holds students to high values and standards as it is our mission to help students become ethical, knowledgeable, competent and caring healthcare professionals. The Jefferson College community is also dedicated to helping students achieve and promote positive personal and community health outcomes, act as good citizens, and adhere to Jefferson College community values and standards. College policies with regard to alcohol, drug, and substance abuse are contained in the Jefferson College Student Handbook, which is available on the college website under the Campus Life tab. Students should refer to the Jefferson College Student Handbook for further information.

**Assessment/Outcomes Policy**

To assist the College with continuous self-evaluation, students and alumni will be asked to participate in various assessment activities, including, but not limited to, answering survey questions, taking standardized and College-prepared tests, and submitting portfolios of documents from coursework. Some of these activities will be required and some may be voluntary.

Jefferson periodically reviews samples of student work to ensure that the curriculum leads to attainment of student learning outcomes. All student work is subject to review by the Institutional Student Learning Outcomes Committee (ISLOC). Student names are not included on any reviewed work in order to ensure anonymity. This review will not affect student grades or progression.

**Attendance Policy**

The following general attendance policies are in effect for Jefferson College of Health Sciences. Specific attendance policies are found in the expanded syllabus for each course.
1. Students must attend the first meeting of each course in order to ensure enrollment. Students enrolled in online learning courses must log in and begin coursework prior to the end of the first week the course begins.

2. Students are required to attend, on time, all regularly scheduled classes, laboratories, field trips, observation assignments, conferences and clinicals.

3. Students assume full responsibility for advising professors of their absences and for initiating the procedure for making up any work missed.

**Audit Policy**

An audited course does not contribute toward the grade point average nor count towards residency or financial aid hours. Auditors will not receive a grade for the course.

Any student has the option to register for a class on an “audit” basis with the permission of the instructor and when space is available. The auditor’s responsibilities in a course are determined through negotiation with the instructor. Students cannot audit the clinical component of professional courses. Auditors requesting a change in status must follow the same guidelines for dropping or adding a class as listed in the official College Calendar.

**Calculating Grade Point Average**

The grade point average (GPA) is used to determine the Dean’s List, the President’s List, Graduation Honors, Academic Probation, and College Dismissal. It is the student’s responsibility to determine if his or her cumulative GPA is accurate and to report any discrepancy to the Registrar.

To calculate GPA, divide the total number of quality points by the total number of graded credit hours attempted. When calculating graded credit hours attempted, pass/fail courses are not included.

Previous courses transferred to the College and courses numbered 000 to 099 are not included in GPA calculations.

Quality points are calculated by multiplying the credit hours in a course by the grade value: A=4, B=3, C=2, D=1, F=0.

**Example of GPA Calculation:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Grade</th>
<th>Credits</th>
<th>X</th>
<th>Quality Points</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 211</td>
<td>B</td>
<td>4</td>
<td>X</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>BUS 111</td>
<td>F</td>
<td>1</td>
<td>X</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Undergraduate Programs at Jefferson

ENG 111  A  3  X  4  12
GEN 100  A  1  X  4  4
HLT 215  B  3  X  3  9
PSY 101  D  3  X  1  3

**Total Quality Points**

<table>
<thead>
<tr>
<th>Total Credits</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Quality Points</td>
<td>40</td>
</tr>
</tbody>
</table>

Total Quality Points (40) divided by Credits Attempted (15) = 2.667

**Catalog Policy/Rights Reserved**

The catalog for the term in which a student enters Jefferson College of Health Sciences is the governing document for requirements for graduation. However, if the application of regulations in a later catalog would be to the student’s advantage, such regulations may be applied at the discretion of the Department Chair and Program Director.

If a student leaves Jefferson College of Health Sciences and enrolls as a full-time student at another institution or is dropped for academic or disciplinary deficiency and subsequently re-enrolls at the College, the governing catalog for the student will be that for the term of re-enrollment.

All College publications contain current pertinent information. While striving to ensure the accuracy of published information, the College reserves the right, to make necessary changes in any or all of the regulatory policies and procedures, requirements, personnel, curriculum offerings, general information, and tuition and fees contained herein, and to apply revisions to current and new students alike. Therefore, the information is subject to change without notice and does not constitute a contract between Jefferson College of Health Sciences and a student or applicant.

**Change of Major Request**

Students desiring to change their academic major should follow the procedures on the Change of Major request form. Students are encouraged to contact their advisor, Student Affairs, and Financial Aid. The ability to change majors will depend upon programmatic criteria/policies, space availability, and accepting Program Director’s approval. A decision letter will be mailed to the student.
Matriculation Policy for Students with Advanced Placement or Transfer Credits

The programs of study published in this edition of the catalog apply to those students entering a program when this catalog is in effect. A student who receives advanced placement or who has significant transfer credit may be matriculated into a previous program of study. Should this occur, notification will be made when the advanced placement or transfer credit is granted and the student will be provided with the appropriate plan of study.

Course Cancellation

Course sections may be canceled for various reasons, including insufficient enrollment. Every effort will be made to accommodate displaced students in other sections. Students enrolled in a course section will be notified of cancellation by e-mail. Students are encouraged to check routinely for changes in course schedules.

Course Load Policy

The course load at Jefferson College of Health Sciences is expressed in semester credits. The average course load varies according to the individual program. Students should refer to their program of study to determine the average course load per semester.

A full-time undergraduate student is registered for 12 or more credit hours per semester. Eighteen credit hours is the maximum number of credits a full-time student may take in one semester without Academic Advisor and/or Program Director approval.

Credit Hours

Jefferson College of Health Sciences’ credit hour policy is consistent with the Federal definition of a credit hour as “an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates:

1. Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or

2. At least an equivalent amount of work as required outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.”
Specifically:

1. Credit hours for on-campus, online, hybrid, independent, or directed-studies courses are awarded based on the amount of work the student is expected to accomplish in that class. Regardless of the delivery method, the amount of work should be equivalent to the number of hours normally expected in a course awarded the same number of credit hours. Hence, a student in a three-semester credit hour course should be accomplishing approximately 135 hours of work, the equivalent of 45 hours of seat time and 90 hours of outside activities.

2. For laboratory classes, one semester credit hour consists of the equivalent of a minimum of two hours of laboratory work per week for fifteen weeks.

3. For practica, externships, and clinical experiences, one semester credit hour is equivalent to 45 to 55 hours of instruction, in accordance with professional accrediting agency expectations.

4. For classes offered in an alternative or compressed format, the hours are prorated so the classes contain the same total number of hours as if the classes were scheduled for a full fifteen-week semester.

5. For graduate and professional students, the required academic work normally will exceed a minimum of two hours of out of class work per credit per week.

Faculty’s role is to ensure the required quantity of student learning per credit is equivalent to a minimum of forty-five hours of coursework over a fifteen-week semester through instructional activities that address and demonstrate student competencies in defined learning outcomes.

Ultimately, the responsibility for protecting the academic integrity of curricula, programs, and class schedules rests with the Dean for Academic Affairs. The College may adjust its basic measure for awarding academic credit proportionately to reflect modified academic calendars and formats of study as long as it meets the aforementioned criteria. The College may also grant semester credit hours for formalized instruction in a variety of delivery modes, such as a lecture course, which also requires laboratory work and/or supervised independent study or field activities.

Regardless of the mode of instructional delivery or class scheduling, the College will assign academic credit consistently across academic programs, as well as for transfer credit. In all cases, the student learning outcomes must be equivalent.

Programs leading to the Associate of Science or Associate of Applied Science Degree consist of a minimum of 60 semester credit hours. Programs leading to the Bachelor of Science Degree consist of a minimum of 120 semester credit hours. Graduate programs consist of at least 30 semester credit hours.

**Course Definitions**

Jefferson College of Health Sciences offers high-quality courses in classroom, online, hybrid, and experiential formats that are consistent in rigor. For course
delivery information, students should consult Self-Service.

Courses will be categorized at Jefferson College using the following definitions:

**Traditional** – Classes meet in person on campus following a defined course schedule.

**Hybrid/Blended** – Classes combine both online and in-person formats requiring some course work to be completed online, while other scheduled activities take place in person in a physical classroom, lab, or other facility. (S1/S2)

**Online Synchronous** – Students are required to participate in live, scheduled online class meetings. Course material is accessed online from any location. (D1/D2)

**Online Asynchronous** – Students complete online course work following a defined course schedule. No synchronous (same-time) scheduled class meetings are required. Course material is accessed online from any location. (D1/D2)

**Experiential** – Instruction is delivered in the form of lab courses (L), clinical courses (C), and internship courses (I).

For all course delivery methods consult course syllabus for schedule of assignment and exams.

**Dual Majors, Minors and Second Degrees**

Jefferson students may earn dual majors, minors, and second degrees while enrolled at the college.

**Dual Majors**
The student must meet all requirements for both majors. There are no restrictions on courses that overlap.

**Minors**
The student must complete 15-19 hours in the minor; 6 hours of which must be at the 300-400 level. Specific requirements (credits and specific courses) will be determined by the major area.

**Second Degrees**
If the first degree was earned from Jefferson, at least 30 hours of new coursework must be completed. The student must meet major and other degree (including Jefferson core) requirements.
If the first degree was not earned from Jefferson, at least 40 hours of new coursework must be completed. The student must meet major and other degree (including Jefferson core) requirements.
Emergency Class Cancellation

The College will close for weather emergencies, disasters, or incidents based on the decision of the College Administration. Notification of emergency class cancellation is made via the emergency alert system (e2Campus), college website, and main phone number. Students are encouraged to sign up for e2Campus. Students may also listen for cancellation notices on local radio and television stations. Please note that the college has no control over how rapidly or accurately the radio and television stations report closings.

English Language Proficiency

Applicants for whom English is not their primary language must demonstrate English proficiency in one of the following ways:

- Graduation from an English speaking high school and completion of high school English IV, or;
- A minimum score of 550 on the Test of English as a Foreign Language (TOEFL) written exam, or;
- A minimum score of 213 on the computer adaptive TOEFL exam, or;
- A minimum score of 80 on the web-based TOEFL exam, or;
- A minimum score of 19 on the English portion of the ACT, or;
- Transfer credit for ENG 111.

Applicants who do not meet the criteria listed will be counseled by an admissions representative regarding remedial coursework.

Examinations

Students are expected to complete all examinations at the date and time stipulated in the course syllabus or as updated/modified by the course instructor.

Students are expected to adhere to the published final examination schedule. No student may take a final examination in a course at any time except within the period officially set aside for this purpose without the prior approval of the instructor.

If a student is unable, because of illness or an acceptable emergency, to appear for an examination, it is the student’s responsibility to inform the instructor prior to the scheduled examination. Instructors have the right to ask for documentation regarding the illness or emergency.

Should the final examination schedule require the student to sit for more than two examinations in a day, arrangements may be made with the instructor to schedule one of the examinations at another time. Should the student and instructor not be able to come to a satisfactory arrangement, the student may pursue the issue with the Dean for Academic Affairs.
Failure to Meet Financial Obligations

Students are responsible for all financial obligations to the College or are responsible to make appropriate arrangements with the Dean for Administrative Services. The College may take the following measures for students in default of financial obligations:

- deny admission to class or clinical activities;
- deny registration for any subsequent course;
- immediate dismissal from the College;
- withhold transcripts;
- withhold the granting of degrees, diplomas or certificates;
- withhold references;
- deny participation in graduation activities; and
- withhold verification of applicant’s credentials for licensure/certification.

Grades and Grading Policies

Grade Reports
Midterm and final grade reports are posted each semester via Self-Service. The midterm grade report indicates a student’s progress and serves to identify potential academic problems. Students in any full-semester class are issued an online midterm grade report of S (Satisfactory) or U (Unsatisfactory) via Self-Service with the exception of clinical related courses. An “S” is equivalent to a C or above.

In order for a student to receive a grade or credit in a course, the student’s name must appear on the official class list posted on Self-Service. The Institution may hold transcripts for outstanding financial balances.

Grading System
A = 4 quality points
B = 3 quality points
C = 2 quality points
D = 1 quality points
F = 0 quality points

P/S - Passing and Satisfactory are included in the computation of total hours earned; however, no grade quality points are assigned.

W - Withdrawal. Not included in the computation of hours earned or grade points achieved. A student may withdraw from a course before the last day to withdraw as stated in the official College Calendar. (See Withdrawal policy.)

WA - Administrative Withdrawal. Administrative Withdrawals are only issued by the Dean for Academic Affairs. (See Withdrawal policy.)

AU - Audit/No credit. Permission of the instructor is required to audit a course.
Fee required. (See “Finances”.)

I - An Incomplete (I) for a course will be granted only in cases of documented circumstances beyond the student's control that prevent the student from completing the course requirements on time. The written request for an Incomplete must be signed by the instructor of record and the course program director, then submitted to the Registrar's office before grades are due that semester.

In order to receive an "I," a student needs to have satisfactorily completed the majority of the coursework (over 75%) with a course average of “C” or above.

The incomplete work must be made up by the last day to drop a class with a “W” in the academic term (excluding Summer Session) immediately following the term in which the “I” was issued.

Upon completion of the coursework, the “I” will be replaced with a final grade. If the course is not completed within the required time limit, the “I” will be converted into an “F” grade unless an extension is granted.

IE- In special documented cases, such as a lengthy illness, the student may request, in writing, an eight-week extension which must be approved by the instructor of record and course program director and filed with the Registrar's office.

Upon completion of the coursework, the “IE” will be replaced with a final grade. If the course is not completed within the required time limit, the “IE” will be converted into an “F” grade unless an additional extension is granted.

NG - No Grade. Assigned to courses that bear zero credits. Not included in computation of hours earned or grade quality points accumulated.

Grade Change Policy
Final grade reports are available online via Self-Service. Final grades are a part of the student’s record and are recorded in the student’s permanent record. Errors should be reported to the Registrar. Normally, a change of grade(s) cannot take place after the semester following the issuance of the grade. Grade changes must be submitted in writing on an official Change of Grade form and may only be submitted by the instructor who submitted the original grade.

Grade Forgiveness Policy
A student may improve his/her grade point average by repeating a course a maximum of two times at Jefferson College. A course repeated at Jefferson will be denoted as a repeat course on the official transcript. All grades earned for all courses taken at Jefferson will appear on the grade report but the highest grade earned in a repeated course is used in calculating the cumulative grade point average. If the course is repeated at another institution the course will be recorded as transfer credit earned.
Please note: Requests for transfer credit for courses taken at other institutions of higher education must be submitted in writing to and be approved by the Registrar’s Office prior to taking the course(s).

**Graduation and Graduation Policies**

**Graduation Application**
It is the responsibility of the student to submit an Application for Graduation two academic sessions prior to the academic session in which the student expects to complete curriculum and College requirements for graduation. The student must file the application with the Registrar’s Office. The application is available in the Registrar's Office and on the College’s website.

**Graduation Ceremonies**

Formal graduation ceremonies are held each year in the spring and fall. All students who have completed degree requirements in the fall, spring or summer semester of that academic year are eligible to participate in the appropriate ceremony.

Degree candidates are expected to dress and conduct themselves in an appropriate manner in accordance with the solemnity of the commencement ceremony. Individuals arriving late may not be able to participate in the ceremonies. Academic regalia must be worn and should not be altered with writing, personal symbols, or displays on regalia. Candidates who alter their regalia or behave inappropriately may be dismissed from the graduation ceremony.

Students who plan to complete degree requirements at the end of the semester immediately following the graduation ceremony may participate in the graduation ceremonies pending completion of degree requirements under the following policy:

1. At the time of the graduation ceremony the student may not have more than two classes to complete.

2. The student must be registered in, and plan to complete the outstanding credits by the last day of final exams of the semester immediately following the graduation in which the student participated.

3. The student will not be eligible to participate in any other graduation ceremony for conferral of the same degree.

**Graduation Honors**

To graduate with honors, a student must achieve the following final cumulative grade point average at Jefferson College of Health Sciences.
Cum laude
Any student who has completed a degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.400 to 3.599 will be designated as graduating cum laude.

Magna cum laude
Any student who has completed a degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.600 to 3.799 will be designated as graduating magna cum laude.

Summa cum laude
Any student who has completed a degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.800 to 4.000 will be designated as graduating summa cum laude.

Graduation Marshals
Full-time students with the highest grade point averages may be invited to serve as marshals at the Commencement.

Graduation Requirements
A student is eligible for graduation when the following criteria have been met:

- All professional courses must be completed at Jefferson College of Health Sciences unless exceptions are permitted by the appropriate Program Director.

- To earn an undergraduate degree, the student must complete a minimum of 25% of the program of study at Jefferson College of Health Sciences. Individual programs may require additional coursework to be completed at Jefferson College of Health Sciences; the number and nature of credit hours is determined by each program.

- The minimum number of course credit hours prescribed in the chosen program of study must be successfully completed with a cumulative 2.0 GPA or better.

- All professional courses must be completed with a minimum grade of “C” or equivalent.

- The Application for Graduation and the Student Exit Form must be completed and returned to the Registrar’s Office.

- All specific program requirements must be satisfied and the appropriate instructional authority in the curriculum must recommend the student for graduation.
• All financial obligations to the College must be met.

**Health Records and Clinical Rotation Requirements**

Jefferson College of Health Sciences requires all students to submit certain health record information. Some programs may have additional requirements, such as background check, drug screen, and CPR certification. For specific information please see the Jefferson Student Handbook and the Program Handbook.

**Honor Code: Community Values and Standards**

**Honor Code: I will not cheat, lie, or steal nor tolerate those who do.**

Every member of the Jefferson Community is responsible for upholding our values and standards. Faculty will include a statement regarding the Honor Code in their expanded syllabi.

It is everyone’s responsibility to know what constitutes a violation of the Honor Code. Students who violate the Honor Code may receive a failing grade for the assignment or the course. They will not be granted a grade of “W” in the course and may, depending on the nature of the offense, be suspended or permanently dismissed/expelled. The College reserves the right to deny admission to or remove students from any program if they have a record of misconduct or demonstrate behavior that would jeopardize their professional performance.

Students should see the relevant sections in the Jefferson Student Handbook.

**Independent Study Policy**

Independent Study courses may be offered by any program.

Permission to take an independent study course is contingent upon the following conditions:

1. The student is in good academic standing.
2. A credentialed faculty member is available and willing to serve as instructor.
3. Permission to undertake an independent study course must be applied for by submitting a completed Independent Study Course Contract form.
4. The instructor, Program Director, and Department Chair - must approve the independent study course proposal.
5. The proposed independent study course does not duplicate a course already scheduled in the relevant semester.
6. The independent study course will follow the same policies and procedures associated with all credit courses.

**Interprofessional Education/Interdisciplinary Studies**

Jefferson has identified broad-based interdisciplinary learning as a component of
its mission, believing that it is essential to improve healthcare outcomes. To accomplish this, elective and required courses in Interdisciplinary Studies (IDS) and Interprofessional Education (IPE) are interwoven in the program curricula. IPE and IDS courses integrate theory, innovative practice, and technology into classroom, laboratory, and clinical settings. IDS courses provide students from all curricula with knowledge that transcends the boundaries of specific healthcare disciplines. Students in IPE courses engage in interprofessional teamwork around problems specific to the topic of the course.

**Jury Duty**

The faculty will make reasonable accommodations for any student required to fulfill Jury Duty obligations. The student must submit official verification of jury duty to the Program Director.

**Leave of Absence**

A student in good academic standing who has a cumulative grade point average of 2.0 or above may request a leave of absence for health or other personal reasons.

A leave of absence shall not exceed 12 months. After that, the student must reapply for admission. An extension of the leave of absence may be granted by the Dean for Academic Affairs.

The student must request the leave of absence in writing through the Registrar’s Office after consultation with the Program Director. In this written request, he/she must state an intended date of return to the College. A copy of this leave of absence must be sent to the Bursar and Financial Aid. The Registrar’s Office will inform relevant others of all approved leaves.

The student on leave of absence must satisfy any conditions of the leave before re-entering and must comply with the course sequence and/or any curricular changes at the time of reentry.

A student’s return is subject to available space.

**Military Policy**

Active Duty:

1. **Purpose**: This policy applies to all enrolled students voluntarily or involuntarily called to active duty for a specified or indefinite period of time. In accordance with the Virginia Tuition Relief, Refund and Reinstatement Guidelines set forth by the State Council of Higher Education (SCHEV), the following definition of service applies:

   "Service in the uniformed services" means service (whether voluntary or involuntary) on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, for a period of more than 30 days
under call or order to active duty of more than 30 days.

2. **Withdrawing from Courses**: Students currently enrolled have two options from which to choose based on the timeframe in which the activation is initiated.
   
   A. **Between the Add/Drop Deadline and the Last Day to Withdraw with a W**: If the activation takes place during this interval the student may withdraw from some or all courses with a non-punitive grade of "W", tuition refunded at 100% for withdrawn courses, and housing pro-rated based on published fees.
   
   B. **After the Last Day to Withdraw with a W**: If the activation takes place late in the semester, the student and the instructor may make appropriate arrangements to complete a course. Such courses will be awarded an Incomplete grade subject to satisfactory and timely completion of course requirements. This option will be administered on a case-by-case basis by Program Directors, dependent upon the feasibility of completing course work and accommodation of arrangements with the appropriate faculty members. Courses less than two-thirds completed normally will not be considered for this option. Instructors must submit to the Registrar a "Request for Incomplete Semester Grade." If this Incomplete Semester Grade option is chosen, no reimbursement of tuition or fees will be provided. Housing refund will be pro-rated based on published fees.

   Otherwise, the student may receive an Administrative Withdrawal from the Dean for Academic Affairs with non-punitive grades of "WA", tuition reimbursed at 100% for withdrawn courses, and a pro-rated housing refund.

3. **Procedure for Exiting the College**
   
   A. **Current Students**: Upon notification of activation, students should report to the Registrar’s Office with the official orders or contact information of where orders can be verified. Students will be advised of the process and procedures for exit.
   
   B. **Admitted and Deposited Students Not Yet Attending**: Upon notification of activation, students should contact the Admissions Office with the official orders or contact information of where orders can be verified.

4. **Reimbursement Policy**
   
   Any student enrolled in a given semester who is called to active duty (as verified through official individual orders) may choose to complete some or all of the courses and receive grade(s), or withdraw from one or more courses with non-punitive grades assigned. Reimbursement of tuition will be provided as follows:
A. Students who choose to earn grades and/or incompletes—No reimbursement will be given.
B. Students who withdraw—Reimbursement of tuition will be at 100% of the course with housing fees pro-rated based on the date of exit.

5. **Readmission**
   A. Return from Leave Time Limit: Students activated while a full-time student at Jefferson will have five years from the completion of their active duty assignment to return to Jefferson to fulfill their degree requirements. Students are reminded, however, that they are still responsible to fulfill all institutional obligations and meet all policies.
   B. Program of Study: Students who leave Jefferson under active duty orders will return to their original program provided that the program is still offered at the College. In cases where the program is no longer offered, the student will work with the Dean for Academic Affairs to establish the guidelines, requirements, and program substitutions necessary to complete the remaining requirements of a mutually agreeable program.
   C. Resources: Upon return to Jefferson, additional resources will be made available to assist with program completion.

6. **Procedure for Readmission**
   A. Upon determination of when the student wishes to return to Jefferson, the student must notify the Admissions Office, and complete all health records and clinical rotation requirements in accordance with college policy.
   B. Once notification has been presented by the student; the Admissions Office will review the file to determine if additional information is required.
   C. Readmission will be processed beginning the start of the next scheduled full-time semester. A student will return under the same status and conditions in effect at the time of departure (i.e., Academic Probation, etc.) and will be reintegrated into the Program based on completed requirements.

7. **Other Implications:**
   A. Students who choose to leave prior to the start of their formal active duty are reminded that their full-time status ends on the date of exit. This date is important as it reflects the date reported to the Department of Education and National Student Clearinghouse for purposes of full-time status for insurance coverage and loan repayment (if applicable). Students are urged to contact these agencies for implications related to their active duty status.
   B. Students should contact the bookstore immediately upon notification of activation to arrange for reimbursement afforded for books obtained per the bookstore’s reimbursement policy at the time books are returned.

**Short-term Military Obligations**
The faculty will make reasonable accommodations for any student required to
fulfill military obligations. This includes time to complete assignments, tests, or quizzes missed during this absence. The student must submit official verification of military obligations to the Program Director.

**Non-Discrimination Policy**

Jefferson College of Health Sciences does not discriminate against employees, students, or applicants on the basis of race, color, gender, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation in accordance with the requirements of Title VI of the Civil Rights Act, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and all other applicable rules and regulations. Anyone having questions concerning any of those regulations, should contact the Equal Opportunity/Affirmative Action Office:

Ms. Anna Millirons, Dean for Administrative Services
Jefferson College of Health Sciences
101 Elm Avenue S. E.
Roanoke, VA 24013
Phone: (540) 985-8530

**Program or Major Specific Courses**

Enrollment in major-specific courses is limited to students accepted to the major or those who have the Program Director’s approval.

**Publicity, Public Relations and Marketing Information**

Representatives from Jefferson College, as well as Carilion Clinic, may occasionally attend College functions held on or off the Jefferson College campus for purposes of taking pictures or video of students, faculty, or staff. The purpose of the media may include publicity, public relations and/or marketing of the College. In addition, students, faculty, and staff may be approached by representatives from the above departments for interviews pertaining to the events.

The images, videos, and interviews will be used for the purposes of marketing the college or generating publicity in local or regional media outlets. This material may be used on the College or Carilion Clinic websites, on social media sites related to Jefferson College (such as Facebook or Twitter), or in the form of advertisements, advertorials, or news/feature stories published by external media outlets. Additionally, materials may be used internally in meeting presentations, for signage, and for other varied purposes related to the business of the College.

Jefferson College students, faculty, and staff may opt out of participating in these photo/video opportunities or interviews by approaching the photographer/interviewer and asking not to be included. Without notification of opting out, the College assumes that individuals who attend these events agree to participate if they are featured in photos, videos, or interviews.
Additionally, Jefferson College periodically releases information about student activities and achievements, such as placement on honorary academic achievement lists, receipt of awards, or graduations. This information may include a student’s name, program of study and awards, or degrees conferred.

Any student may have this information withheld by notifying the Jefferson College Registrar’s Office. Faculty and staff may have this information withheld by notifying the Marketing and Communications Office. The College assumes that the failure of any individual to do so indicates approval for release of information.

**Registration**

Registration is required each semester before a student may attend classes. Specific registration information is provided in the class schedule each semester.

Prior to gaining access to Self-Service, students must meet the following requirements:

- Meet with their advisor. Students who have not been assigned an advisor should see the Registrar.
- Meet all financial obligations to the College.
- Complete/update all required health information and forms through Student Affairs.

Any student who has not paid tuition fees or made suitable arrangements with the Bursar, will have his or her registration cancelled and will not be permitted to attend class, clinicals, rotations or internships.

Official class rolls will be available online via Self-Service to all instructors after the last day to add a class. At this time, any student who has not paid tuition fees or made suitable arrangements in the Bursar’s Office will have his or her registration cancelled and will not be permitted to attend class, clinical or internship.

**Responsibility of the Student**

Each student is responsible for understanding and following the policies, requirements for the degree, and all associated deadlines provided in the Catalog and Jefferson Student Handbook. Although each student is assigned an academic advisor, the ultimate responsibility for compliance with the policies, the stated requirements for the degree, and all associated deadlines lies with the student.

The responsibility for meeting degree or certification requirements rests with the student.
Student Complaints/Grievances

A student who has exhausted all avenues of the complaint/grievance process as outlined in the Student Handbook, has the right to submit a formal complaint to the State Council of Higher Education for Virginia (SCHEV). This applies to all students regardless of the type of instructional methodology (face-to-face or online). The student will find the information regarding the process and form by clicking here or by going to http://www.schev.edu/students/studentcomplaint.asp.

Student Exit Form

A Student Exit Form must be submitted to the Registrar’s Office if a student is graduating, completely withdrawing from the college or requesting a Leave of Absence. The form is available online or in the Registrar's Office. Seniors planning to graduate must submit the form no sooner than two weeks before the graduation date but no later than the last official day of classes prior to the anticipated graduation. The exiting student must obtain clearance from all departments listed to verify that all obligations to Jefferson College of Health Sciences have been satisfied before the student can be eligible for graduation or have any requests for transcripts honored.

Student Classifications

The classification of a student during any academic year will be based on the official transcript issued by the Registrar's Office.

Students' class standing is determined by the total number of credit hours earned at Jefferson and any transfer credits that have been accepted by the College and/or completion of required courses for the appropriate year.

According to Hours Enrolled

- **Full-time**
  An undergraduate student registered for 12 or more credit hours per semester or a graduate student registered for 9 or more credit hours per semester.

- **Three-quarter time**
  An undergraduate student registered for 9 to 11 credit hours per semester.

- **Half-time**
  An undergraduate student registered for 6 to 8 credit hours per semester or a graduate student registered for 6 to 8 credit hours per semester.
According to Hours Completed

- **Freshman**
  A student with fewer than 24 course credits completed (Grade Level 1) in a designated curriculum.

- **Sophomore**
  A student with not less than 24 or more than 57 course credits completed in a designated baccalaureate degree curriculum or an associate degree candidate with 24 or more credit hours completed in a designated curriculum. Associate degree candidates may not exceed sophomore standing.

- **Junior**
  A student with not less than 58 or more than 91 course credits completed (Grade Level 3) in a designated baccalaureate degree curriculum.

- **Senior**
  A student with 92 or more course credits completed (Grade Level 04) in a designated baccalaureate degree curriculum.

For all classes, transfer credits are included provided they meet the requirements of the student’s curriculum.

According to Admission Status

- **Degree Student**
  A full-time or part-time student, accepted and matriculated into a degree program.

- **Certificate Student**
  A full-time or part-time student, accepted and matriculated into a certificate program.

- **Special Student**
  A student enrolled for fewer than 9 credit hours and not accepted into a program.

Students’ Rights of Access to Their Educational Record

The College complies with the Family Educational Rights and Privacy Act of 1974 (FERPA), as amended (often referred to as the "Buckley Amendment"), which protects the privacy of educational records, establishes students’ rights to inspect their records, provides guidelines for correcting inaccurate or misleading data, and permits students to file complaints with the Family Educational Rights and Privacy Act Office. Portions of this policy were adapted from the recommendations of the American Association of Collegiate Registrars and Admissions Officers (2013), Family Educational Rights and

Educational records are defined as any record maintained by the institution in which a student can be personally identified. Record formats may include handwritten, printed, computer images or data, e-mail, video/photos, audio tapes, and microfilm/microfiche. However, education records do not include private notes maintained by a College official that are not accessible or released to other personnel, law enforcement or campus security records, medical records, employment records, and alumni records.

Students are afforded the following rights with respect to their educational records:

1. The right to inspect and review his/her education records within 45 days of the day the College receives a request for access. Students should submit to the Registrar, Dean for Academic Affairs, Dean for Student Affairs, Department Chair, or Program Director a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place when the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, the official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of his/her education records that the student believes to be inaccurate or misleading. Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosures without consent. Access to students’ records, except directory information, which may be released, is never granted to individuals from off campus requesting information, unless the student involved has given written permission or as applicable law requires. Directory information is defined as the student’s name, address, phone number, dates of attendance, curriculum, honors, degrees granted, graduation dates, and participation in officially approved activities. Students may restrict access to their directory information by contacting the Registrar’s Office and filing a written request. To minimize the risk of improper disclosure, academic and disciplinary records are kept separate.
Students may authorize disclosure of information to parents or anyone else by completing a Student Permission to Release Information Form available in the Registrar’s Office. This authorization for disclosure may also be revoked by the student through written notification to the Registrar’s Office.

The College may also exercise its discretion to disclose information from the student’s educational records without written authorization from the student under the following circumstances:

a. to federal, state, and local authorities involved in the audit or evaluation of compliance with education programs;

b. to comply with a judicial order or subpoena;

c. in connection with financial aid;

d. to organizations conducting studies for or on behalf of educational institutions;

e. to accrediting organizations;

f. to the parents of a dependent student (special guidelines apply);

g. when a health or safety emergency is apparent;

h. when directory information is being released;

i. to an alleged victim of a crime of violence, the results of a disciplinary hearing may be disclosed; and

j. to school officials who have a legitimate educational interest. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including security personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Directors; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education
concerning the alleged failures by the College to comply with requirements of FERPA. The name and address of the office that administers FERPA is Family Policy Compliance Offices, U.S. Department of Education, 400 Maryland Avenue SW, Washington, D.C. 20202-4605.

**Transcripts**

The Jefferson College of Health Sciences transcript is the official record of student academic progress, documenting all course grades, grade point average, and degree(s) awarded. The Registrar issues transcripts of a student’s Jefferson College of Health Sciences academic record upon written request of the student. The Family Rights and Privacy Act serves as the basis for releasing information about the student.

Telephone requests cannot be honored. Official transcripts will not be issued to students with unpaid accounts. Ten business days prior to need, requests for transcripts may be submitted in the following ways:

- in writing by mail or in person,
- by fax with signature,
- via Self-Service, or
- via iwantmytranscripts.com.

When requesting a transcript, students must include name while attending, present address, birth date, maiden name, estimated date of last attendance, signature and the name and address of the recipient. The College will not provide students with copies of transcripts from other institutions.

**Transfer Credit**

The awarding of transfer credit for courses taken at other institutions of higher education is processed by the Registrar’s Office. Official transcripts from the college or university are required before transfer credit is considered.

- The course considered must be comparable in content and credit hours to the corresponding Jefferson College of Health Sciences course.
- Science courses completed more than 10 years prior to enrollment may not be accepted for transfer.
- Verification through testing of some courses may be possible.
- Pathophysiology (BIO 300) may be used to validate anatomy and physiology and microbiology requirements with Program Director approval.
- Courses with a final grade less than “C” will not be accepted for transfer.
- Transfer credit will only be awarded from a regionally accredited
• institution.

• Each course selected for transfer must not duplicate a course already completed or a course required to be taken at Jefferson College of Health Sciences.

• Foreign transcripts must be evaluated and/or translated by a credential evaluation service specializing in international course-by-course evaluations or AACRAO (The American association of Collegiate Registrars and Admissions officers). This evaluation service must be a member of NACES (the National Association of Credential Evaluation Services) and a list of NACES evaluators is available on their website, www.NACES.org.

• Transfer credit will be placed on a student’s transcript, within two weeks of receipt of the transcript by the Registrar.

• Students who wish to transfer major-specific courses (e.g. a nursing course) must petition the director of the pertinent major for evaluation of credit.

• Students may be asked to submit course descriptions and/or syllabi for evaluation of transfer credit.

• Current Jefferson College of Health Sciences students wishing to take coursework at another college or university are advised to obtain written permission from the Registrar to ensure that the coursework is transferable.

• The Registrar’s Office will make the determination concerning the course and its application toward a Jefferson College of Health Sciences degree following consultation with the student’s Program Director. Permission to transfer credit while matriculating at Jefferson will be based on an evaluation of the extent to which the course meets the objectives of the specific major.

• All decisions regarding transferability of course credit must be verified in writing by the Registrar.

• Grades awarded through transfer credit are not included in the computation of grade point average at Jefferson College of Health Sciences.

Transfer to Another Jefferson Program

Any student in good academic standing who wishes to transfer to another Jefferson program should submit a Change of Major form to the director of the new program for approval. Students are encouraged to contact the Program
Director for program specific requirements.

If approved, the form must be signed by the new (admitting) program director and the exiting (leaving) program director. The form will then be sent to the Registrar's Office after all the signatures have been obtained.

Change of major forms must be completed and submitted to the Registrar's office two weeks before registration begins.

Withdrawal

Add/Drop
Students wishing to add or drop a class prior to the add/drop deadline should refer to the policies and procedures outlined under Add/Drop in this section of the catalog.

Administrative Withdrawal
Students wishing to withdraw from a class after the final withdrawal date (the last date to withdraw with a "W") must complete a request for administrative withdrawal, which is only authorized by the Dean for Academic Affairs for extenuating circumstances. Tuition is not reimbursed with an administrative withdrawal. Students are encouraged to consult the Bursar’s Office at (540) 985-3585 and the Office of Financial Aid at (540) 985-8267 to determine the financial implications of their withdrawal.

The student must submit a request for administrative withdrawal in writing to the Dean for Academic Affairs. The request must be placed on the official form available on the Jefferson web site. Supplemental documentation is required.

The request must:

- identify circumstances beyond the student's control that have occurred after the withdrawal date (date must be specified) and prevent successful completion of the course. If such circumstances occurred prior to the withdrawal date, the request must also document the extenuating circumstances leading to a failure to withdraw from the course before the withdrawal date. Lack of awareness of the withdrawal date is not considered an extenuating circumstance.
- include documentation verifying all extenuating circumstances. Examples of acceptable documentation include a letter from a physician, lawyer, counselor, or other professional.
- indicate the last day of class attendance or online activity in an online course.
- be accompanied by a letter/e-mail from instructors of all courses involved in the request indicating their recommendation regarding the request.

The Dean will respond within five business days of receipt of the student's letter.
and written recommendation from all involved instructors. A written copy of this
decision will be sent to the student with copies to the Registrar, Program
Director, course instructor(s), and academic advisor. The decision of the Dean is
final.

Directed Withdrawal
The College reserves the right to direct, after administrative evaluation,
the withdrawal of any student whose conduct is not in accord with the
ideals, policies, and standards of the College.

Students who have been directed to withdraw for other than health reasons may
not be eligible to return to the College. Such students should contact the Dean
for Student Affairs concerning eligibility for return.

Students with health problems, which in the assessment of the College
substantially hinder participation in the educational process and/or may pose a
risk to the College, other students, and/or patients, also will be directed to
withdraw. Requests to return by those directed to withdraw for health reasons will
be considered on an individual basis. The student must write a letter to the Dean
for Student Affairs. This letter should contain appropriate documentation from a
physician, physician assistant or nurse practitioner to justify consideration for re-
enrollment.

If a student has not attended for three consecutive semesters, then the student
must also reapply for admission.

Voluntary Withdrawal
Students who wish to drop one or more courses after the Add/Drop deadline may
withdraw until the published College Calendar deadline (last day to withdraw
from a class with a W). Students are required to submit to the Registrar a
completed Withdrawal from Classes form containing the academic advisor’s
signature.

Students withdrawing from all courses during a term must make satisfactory
arrangements before leaving the College. Additionally they must submit to
the Registrar a Student Exit Form by the published deadline.

If receiving financial aid, the student must also complete an Exit Interview
with the financial aid officer. Students withdrawing completely must clear all
charges on their student accounts at the time of their Exit interview, complete all
paperwork and exit surveys, and turn in their identification cards.
Undergraduate Program Descriptions
Bachelor of Science in Biomedical Sciences

Introduction

This program prepares graduates for entry into a variety of graduate programs. The successful student is well prepared to compete successfully for admission to professional schools in medicine, veterinary medicine, dentistry, pharmacy, and physician assistant programs as well as graduate studies in biological, biochemical, and biomedical sciences.

The Biomedical Sciences Program offers individualized attention to students in the program. Small classes and personalized guidance by the faculty help each student achieve his or her goals in the biomedical field. Students participate in a research course and are encouraged to be involved in research within biomedical sciences.

Mission Statement

The mission of the Biomedical Sciences Program at Jefferson is to prepare graduates with a solid foundation in the natural sciences, to inspire lifelong learning, and to facilitate the acquisition of knowledge and skills necessary to enter graduate studies in biomedical or healthcare fields.

Program Outcomes

Upon completion of the Biomedical Sciences program, graduates will be able to

1. Demonstrate working contemporary knowledge of the natural sciences as they apply to biomedical disciplines;
2. Demonstrate the principles of diverse and critical thinking, skeptical inquiry, and the scientific approach to reasoning and problem solving;
3. Demonstrate an understanding of aspects of the natural sciences that underlie the basis of human wellness and disease;
4. Understand concepts of research design, data collection, data analysis, and interpretation of published research findings;
5. Understand functional mechanisms relevant to biomedical science within the range of the molecular to whole organisms;
6. Exhibit comprehensive preparation to be a competitive candidate for graduate biomedical studies or employment in the biomedical field;
7. Demonstrate effective communication (written, spoken, and technological) skills relevant to biomedical science and/or a career in biomedical science; and
8. Demonstrate quantitative proficiency relevant to the natural sciences and/or biomedical science.
Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Biomedical Sciences Handbook*. This handbook is available electronically on the program blackboard site and may be requested from the program secretary.

Program Progression

An unsatisfactory evaluation is a final grade report of "D" or "F" in any Biomedical Sciences course. This includes all courses with prefixes BIO, CHM, MTH, and PHY.

If a student in the Biomedical Sciences program receives a grade of D or F in a BIO, CHM, MTH, or PHY course, then the student will be placed on programmatic probation. The student will be required to repeat the course at Jefferson in order to improve the grade. When a satisfactory grade for the repeated course is earned, the programmatic probation will be removed and the course will no longer count toward the accumulation of unsatisfactory grades.

**Please note that the accumulation of two unsatisfactory, uncorrected final grades (D or F) in any Biomedical Sciences program specific courses will result in dismissal from the Biomedical Sciences program.**

Students who have been dismissed from the Biomedical Sciences program may petition in writing for re-admission to the program after one semester of otherwise satisfactory performance. The petition for re-admission will be considered on an individual basis by the Program Director. (Students who petition for re-admission to a program from which they have been dismissed must go through the College's general admission procedure for re-admission to the College if they have not attended in 12 months or more.)

Biology Minor

Required:
- A minimum of 17 hours, 9 of which must be earned at Jefferson
- BIO 211/211L Anatomy and Physiology I
- BIO 212/212L Anatomy and Physiology II
- 9 hours of BIO courses at 300/400 level
Bachelor of Science in Biomedical Science
Program of Study (122 credit hours)

This plan of study is a sample. The actual order in which classes are taken may vary.
1. A minimum of 45 hours of BIO credit are required, including 18 credits from lower division (100 or 200 level) courses and 27 credits from upper division courses (300 or 400 level) courses.
2. A minimum of 20 hours of CHM credit are required.
3. IDS 302 will not be accepted.
4. A total of 122 hours are required for graduation.

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<tr>
<th>PREFIX</th>
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<th>CREDITS</th>
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<tr>
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<td>Elective</td>
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<td>HUM ELE</td>
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<td>ELE</td>
<td>Elective</td>
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<td>HUM ELE</td>
<td>Humanities or Literature Elective</td>
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Credits from Non-Major Courses: 46
Credits from Major Courses: 76
Total Credits: 122
Bachelor of Science in Emergency Services

Introduction

The Bachelor of Science degree in Emergency Services (BSES) prepares graduates for entry level practitioner and management positions in the field of emergency services. The Emergency Services profession has experienced dynamic changes since September 11, 2001. These changes have placed an increased emphasis on a well-educated and prepared workforce to meet the needs of both traditional and all-hazards responses. The program meets these challenges by providing a well-rounded core of general education courses and allows students to customize their plans of study to fit long-term career goals. Students enjoy a perfect blend of classroom, laboratory, clinical and field internship experiences in pursuit of their degree. The College offers three tracks to the BSES:

The **Paramedic/Firefighter Track** prepares students for fire and emergency medical services (EMS) positions while developing skills for entry level management and leadership positions in the fire and EMS professions. Graduates will be eligible to sit for the national paramedic credentialing exam and complete numerous fire certifications.

The **Paramedic/Critical Care Track** prepares students for EMS positions as paramedic while learning advanced patient care methodologies within the critical care ground and air transport environment. This track also prepares the student for entry level management and leadership positions in non-fire service based EMS agencies. Graduates will be eligible to sit for the national paramedic credentialing exam.

The **Degree Completion Track** is designed for students already working in the field of Emergency Services seeking to complete a bachelor’s degree. Students are required to meet specific prerequisites in order to qualify for entry into this track.

Program Accreditation, Approval, and Membership

National Accreditation

The Emergency Services program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation for Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs  
1361 Park Street  
Clearwater, FL 33756  
727-210-2350  
[www.caahep.org](http://www.caahep.org)
Committee on Accreditation for Emergency Medical Services Professions, 8301 Lakeview Parkway Suite 111 - 312 Rowlett, TX 75099 Phone 214-703-8445 www.coaemsp.org

State Accreditation

The program is also accredited by the Virginia Department of Health, Office of Emergency Medical Services (VAOEMS), 1041 Technology Park Drive, Glen Allen, VA 23059-4500, Phone 1-800-523-6019

Program Mission

The mission of the Bachelor of Science in Emergency Services program is to prepare professionals who provide excellent patient care and emergency services while preparing to meet the challenges of the evolving field of emergency services.

The mission of the paramedic education component of the Emergency Services Program is to prepare competent entry-level paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Program Outcomes

Graduates of the Bachelor of Science in Emergency Services program will be able to:

1. provide care to patients of all ages and cultures,
2. advocate for patients,
3. serve in a designated National Incident Management System (NIMS) command or staff position during incident operations,
4. communicate effectively on an interprofessional team and with peers,
5. analyze data and assess findings to formulate an appropriate plan of action,
6. mitigate the hazard level of an incident scene,
7. assess the need for and implement public fire, injury, and illness prevention strategies,
8. evaluate emergency services related research,
9. exhibit caring, culturally competent behaviors in the delivery of services,
10. value life-long professional development,
11. participate in management and/or research processes in an emergency services organization, and
12. formulate a political action plan based on an emergency services issue.
Paramedic Minimum Performance Standards

The emergency services provider must be a confident leader who can accept the challenge and high degree of responsibility entailed in the position.

Mental Demands

The paramedic must have excellent judgment and be able to prioritize decisions and act quickly in the best interest of the patient, must be self-disciplined, able to develop patient rapport, interview hostile patients while maintaining a safe distance. The paramedic must be able to function independently at an optimum level in a non-structured environment that is constantly changing.

Communication Demands

The paramedic must be able to recognize and utilize communication unique to diverse multicultural groups and ages within those groups.

Physical Demands

Aptitudes required for work of this nature are good physical stamina, endurance, and body condition that would not be adversely affected by frequently having to walk, stand, lift, carry, and balance at times, in excess of 125 pounds. Motor coordination is necessary because of uneven terrain; the patient’s, the paramedic’s, and other workers’ well-being must not be jeopardized.

Firefighter Minimum Performance Standard

Mental Demands

The firefighter must be able to think critically in a time-sensitive manner and solve complex problems during physical exertion in stressful, hazardous environments, including hot, dark, tightly enclosed spaces, that may be further aggravated by fatigue, flashing lights, sirens, and other distractions. They must also be able to function as an integral component of a team.

Physical Demands

Performing fire-fighting and rescue operations tasks requires extensive crawling, lifting and carrying heavy objects while wearing personal protective ensembles and self-contained breathing apparatus (SCBA), including working in extremely hot or cold environments for prolonged time periods. The firefighter is required to be able to tolerate increased respiratory workloads and may be exposed to toxic fumes, irritants, particulates, biological (infectious) and non-biological hazards, and/or heated gases despite appropriate use of personal protective equipment (PPE). The firefighter may be required to climb six or more flights of stairs while wearing PPE and carry 20 – 40 lbs. of equipment. The firefighter must be able to search, find and rescue/drag or carry victims ranging from newborns up to adults.
weighing over 200 lb. (90 kg) to safety despite hazardous conditions and low visibility, advance water-filled hose lines approximately 150 ft. while negotiating obstacles, climb ladders, operate safely from heights, walk and crawl along uneven surfaces. The firefighter may also be required to function for prolonged periods of time with high physical exertion, without warm-up, scheduled rest periods, meals, and access to medication or hydration.

**Communication Demands**

The firefighter must have the ability to communicate (give and comprehend verbal orders) under emergency operations, while wearing personal protective ensembles and/or SCBA, and under conditions of high background noise, poor visibility, and drenching from hose lines and/or fixed protection systems (sprinklers).

**Academic Policies**

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Emergency Services Student Handbook*. This handbook is provided to the student in writing as part of the programmatic orientation process.

**Program Progression**

The following requirements are placed on students for either continued progression in the program or eligibility to sit for national certification examination.

A. Final grade of “C” or better in all required Emergency Services courses.
B. Final grade of “C” or better in courses required for the respective track in order to sit for the National Registry of Emergency Medical Technician Paramedic (NRP) certification examination: BIO 211, BIO 212, and all English courses.
C. Score 80% or higher on the medication calculation test. The test is designed to measure basic math computation skills without assistance of a calculator.
D. Successful completion of a summative written and practical examination to sit for the NRP certification examination.
E. Successful completion of a summative oral examination with the Operational Medical Director to sit for the NRP examination.
F. Successfully meet all required clinical and field hours and skills competencies to sit for the NRP certification examination.
G. Successfully passing the NRP exam prior to beginning the senior year.

**Advanced Standing**

The Emergency Services program will only review currently certified Nationally Registered Paramedics for advanced standing and potential programmatic
transfer credit. A current (non-expired) certification card must be submitted as proof of certification.

Certification Information

Upon successful completion of the program and by approval of the Operational Medical Director, students are eligible to sit for the National Registry EMT-Paramedic Exam.

The National Registry of Emergency Medical Technicians, Rocco V. Morando Building, 6610 Busch Blvd., P.O. Box 29233, Columbus, Ohio 43229.

Certifications are also earned from the following organizations:

American Heart Association, 7272 Greenville Ave, Dallas, TX 75231

National Association of Emergency Medical Technicians, 132-A East Northside Dr. Clinton, MS 39056

National Disaster Life Support Foundation, AF-2044, 1120 15th Street Augusta, GA 30912

U.S. Fire Administration, 16825 S. Seton Ave., Emmitsburg, MD 21727 Virginia Department of Fire Programs, 1005 Technology Park Drive, Glen Allen, Virginia 23059

Virginia Department of Fire Programs (VDFP), 1005 Technology Park Drive, Glen Allen, Virginia, 23059

Virginia Fire Marshal Academy, 1005 Technology Park Drive, Glen Allen, Virginia 23059
Bachelor of Science in Emergency Services
Paramedic/Critical Care Track
Program of Study (120 credit hours)

Courses must be taken sequentially in the order presented.

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<th>PREFIX</th>
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<td>GEN 100</td>
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<td>EMS 110</td>
<td>Foundations of Evidence Based Practice in Emergency Services</td>
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| **Semester 2: Spring** | | |
| ENG 112 | Grammar and Composition II | 3 |
| BIO 211/211L | Anatomy & Physiology I | 4 |
| MTH 165 | College Algebra | 3 |
| EMS 107 | Principles of Emergency Services | 1 |
| EMS 113/113L | Patient Assessment & Respiratory Management w/Lab | 4 |
| EMS 151C | Clinical Practice I | 1 |
| **Total Credits:** | | 16 |

| **Semester 3: Fall** | | |
| BIO 212/212L | Anatomy & Physiology II w/Lab | 4 |
| IPE 200 | Fundamentals of Teamwork | 1 |
| EMS 160C | Clinical Practice II | 2 |
| EMS 161I | Field Internship I | 1 |
| EMS 146/146L | Cardiac Emergencies w/Lab | 4 |
| EMS 211/211L | Prehospital Pharmacology w/Lab | 4 |
| **Total Credits:** | | 16 |

<p>| <strong>Semester 4: Spring</strong> | | |
| EMS 271I | Field Internship II | 1 |
| EMS 272C | Clinical Practice III | 2 |
| EMS 231/231L | Obstetrics &amp; Pediatrics Emergencies w/Lab | 4 |
| EMS 255/255L | Trauma Emergencies w/Lab | 4 |
| EMS 245 | Introduction to Emergency Services Research | 1 |</p>
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**Semester 5: Fall**

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**Semester 6: Spring**

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<td>EMS 306L</td>
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<td>IDS 254</td>
<td>Introduction to Research Design</td>
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<td>Educational Methods for Emergency Services</td>
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**Semester 8: Spring**

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**Credits from Non-Major Courses:** 46

**Credits from Major Courses:** 78

**TOTAL CREDITS:** 124
Bachelor of Science in Emergency Services
Paramedic/Firefighter Track (121 credit hours)
Courses must be taken sequentially in the order presented.

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**Credits from Non-Major Courses:** 43

**Credits from Major Courses:** 81

**Total Credits:** 124
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**Semester 2: Spring**

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**Semester 4: Spring**

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Bachelor of Science in Health and Exercise Science

Program Description

The Health and Exercise Science (HES) Program at the Jefferson College of Health Sciences is a four-year, Bachelor of Science degree program. The blend of classroom, laboratory, and clinical components is designed to prepare students for careers in Health and Exercise Science and/or post-baccalaureate education.

A Bachelor of Science degree in Health and Exercise Science from Jefferson College of Health Sciences prepares graduates for careers in college, clinical, corporate, and commercial settings, including personal fitness consulting/training, cardiopulmonary rehabilitation, hospital and/or corporate wellness, community health and obesity prevention, and industrial rehabilitation/worksite fitness. Students enrolled in the program will have the flexibility to develop knowledge, skills, and abilities to pursue post-baccalaureate education in health-related programs.

Program Philosophy

The educational philosophy of the HES program is based on the concepts of learner-centered teaching, experiential learning and academic excellence. The HES program features a complementary relationship between general education and professional studies, between academic and personal development, between service and individual growth, and between the Jefferson campus and the larger community.

The overarching vision of HES is to help people establish and maintain physically active, healthy lifestyles. This includes helping people develop the essential beliefs, attitudes, knowledge, and skills associated with maintaining lifelong physical activity habits that promote individual responsibility toward optimal health and fitness. Additionally, and equally important, is helping people to develop collective efficacy, communities of learned citizens that value active living, are confidence in their ability to live actively, and are committed to our transformation to a physically active society. Physically active citizens behave in ways that recognize and support societal changes and policies aimed at building healthy, supportive environments that are conducive to the practice of safe, effective, and inclusive physical activity and health behaviors that are available to all people.

Program Mission

The mission of the Health and Exercise Science program is to provide an academic environment that will enable students to develop knowledge, skills, and abilities (KSAs) in the areas of health and exercise science. Through a focused curriculum, faculty-student interactions, and clinical opportunities, graduates of the Health and Exercise Science program will cultivate the competencies and
proficiencies required for entry-level professional practice or continuation to graduate-level education.

Program Outcomes

Graduates of the Health and Exercise Science program will be able to

1. apply biophysical and behavioral theory and research from health and exercise science to critically analyze health, exercise, and fitness processes, behaviors, and outcomes,

2. demonstrate integration of health and exercise science scholarship into clinical practice through
   - assessment, design, and implementation of individual and group exercise programs and fitness activities for persons of all ages who are apparently healthy and those with controlled disease,
   - application of skills in evaluating health behaviors and risk factors, conducting fitness assessments, writing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for health promotion,

3. demonstrate competence, professionalism, cultural sensitivity, and a commitment to life-long learning as a leader of health and fitness programs in college, clinical, corporate and/or commercial settings in which clients participate in health promoting and fitness-related activities,

4. develop knowledge, skills, and abilities requisite for post-baccalaureate education in health and exercise science, other medical/allied health fields, and/or professional certification/career placement, and

5. complete minimally 500 hours of practical experience in supervised clinical exercise program settings.

Minimum Performance Standards

Client safety and provision of quality services is paramount. Students in the Health and Exercise Science Program are expected to demonstrate:

Observation Skills:
   - Ability to observe a client’s response to programming, changes in client’s physical condition, body alignment, exercise technique, gait, posture and functional abilities, interpret instrument panels/displays, assess the environment, and gather information from data sources and professional literature.

Communication Skills:
   - Ability to communicate clearly, effectively and efficiently in English, both orally and in writing, with patients and their families, other health care providers, peers, faculty, community or other professional groups.
• Ability to use nonverbal behavior to effectively and appropriately communicate messages.
• Ability to recognize, interpret and respond to the nonverbal behavior of others.
• Ability to read at a competency level necessary to safely and efficiently carry out the essential functions of a task.
• Ability to document clearly, legibly and using appropriate scholarly and professional terminology.

Motor Skills:
• Demonstrate satisfactory movement skills necessary to model and instruct appropriate exercise technique.
• Demonstrate satisfactory physical conditioning and motor ability necessary to assure safety when working with clients.
• Demonstrate motor control necessary to manipulate/operate equipment controls and use assessment tools.

Intellectual Conceptual Skills:
• Ability to collect, interpret and assess data about clients.
• Ability to prioritize multiple tasks, integrate information and make decisions.
• Ability to problem-solve.
• Demonstrate critical thinking skills sufficient for safe and sound clinical judgment and discretion.
• Ability to apply knowledge of health and exercise interventions in a variety of settings and situations.
• Ability to recognize and respond appropriately to emergency and potentially hazardous situations.

Behavior:
• Ability to interact appropriately with individuals of all ages, genders, races, socio-economic, religious, lifestyle and cultural backgrounds.
• Ability to cope effectively with the stresses of academic demands and clinical situations.
• Ability to work collaboratively with HES students, faculty, and clinical staff.
• Demonstrate emotional health and stability required to fully utilize intellectual capabilities, demonstrate good judgment and render services required in diverse health and exercise settings.

The HES Program faculty will assist a student’s accomplishment of these technical standards, but the responsibility for meeting KSAs rests with the student.

If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether
the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or client safety, the institution, or the educational process of the student, including all coursework, and clinical experiences deemed essential for graduation.

**Academic Policies**

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Health and Exercise Science Program student handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

**Program Progression**

HES courses (with a HES prefix) should be taken in the year sequence listed. Students must successfully complete lower (200) level courses before advancing to the next (300) level. The student must achieve a minimum grade of “C” in all professional courses and BIO 211 and 212, as well as meeting prerequisite or co-requisite requirements in order to advance to the next semester. Please refer to the catalog course descriptions for prerequisite and co-requisite requirements.

**Licensing Information**

Health and Exercise Science program graduates will be eligible to pursue certifications with the American College of Sports Medicine, National Strength and Conditioning Association and other organizations requiring a Bachelor’s degree and clinical experience.

**Exercise Science Minor**

Students who are majoring in disciplines other than Health and Exercise Science (HES) may choose to minor in Exercise Science. The following are the requirements for an Exercise Science minor.

**Required**

- Minimum 15 credit hours, of which 9 must be earned at Jefferson
- HES 201 Foundations of Health and Exercise Science (1)
- HES 223/223L Group Exercise Activities with lab (2)
- HES 224/224L Resistance Training Skills with lab (2)
- HES 302 Exercise Physiology (4)
- HES 334/334L Kinesiology (3)
- 3 hours HES courses at the 300/400 level (3)
Health Promotion Minor

Students who are majoring in disciplines other than Health and Exercise Science (HES) may choose to minor in Health Promotion. The following are the requirements for a Health Promotion minor.

Required
- Minimum 16 credit hours, of which 9 must be earned at Jefferson
- IDS 355 Introduction to Public Health (4)
- HLT 301 Nutrition (3)
- PSY 230 Positive Psychology (3)
- HES 365 Psychosocial Aspects of Exercise (3)
- HES 452 Community Health and Physical Activity Promotion (3)

Bachelor of Science in Health and Exercise Science
Program of Study (122 credit hours)
*HES classes must be taken sequentially in the order presented.*

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**Credits from Non-Major Courses** 68

**Credits from Major Courses** 53

**Total Credits:** 121
Bachelor of Science in Health and Exercise Science (PTA/OTA Track)
Program of Study (122 credit hours)
_HES classes must be taken sequentially in the order presented._

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Bachelor of Science in Health and Exercise Science
Program of Study Non-Clinical Track (122 credit hours)

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<td>HES 223/223L</td>
<td>Group Exercise Activities w/Lab</td>
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<td>Fundamentals of Teamwork</td>
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<td>HES 224/224L</td>
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<td>Injury Prevention and Post-Rehabilitative Exercise</td>
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Bachelor of Science in Health Psychology

Introduction

The Health Psychology baccalaureate program offers a well-rounded education in psychological theory and research, as well as a specialization in health psychology. Health Psychology, simply put, is the scientific study of the impact of the mind on well-being. Health Psychology identifies links between people’s well-being and how they feel, think, and behave. It also seeks to understand the impact of physical factors on human behavior and to work to improve health and prevent illness with biopsychosocial interventions.

The Jefferson Health Psychology program offers the flexibility of customization to fit the student’s long-term career goals. Students who graduate with a Bachelor of Science degree in Health Psychology are prepared for graduate study in psychology and related disciplines.

Program Mission

The mission of the Health Psychology program is to prepare, within a scholarly environment, ethical, knowledgeable, competent, and caring graduates who are well positioned for graduate study in Psychology and other health professions.

Program Vision

The Health Psychology program will excel as an undergraduate source of Psychology PhDs.

Program Outcomes

Upon completion of the program, students will demonstrate the knowledge, skills, and values consistent with the science and application of psychology, as adapted from the American Psychological Association Guidelines 2.0 for the Undergraduate Psychology Major (APA, 2013). These include:

1. Knowledge Base of Psychology
   1.1 Describe key concepts, principles, and overarching themes in psychology.
   1.2 Develop a working knowledge of psychology’s content domains.
   1.3 Describe applications of psychology.

2. Scientific Inquiry and Critical Thinking
   2.1 Use scientific reasoning to interpret psychological phenomena.
   2.2 Demonstrate psychology information literacy.
   2.3 Engage in innovative and integrative thinking and problem solving.
   2.4 Interpret, design, and conduct basic psychological research.
   2.5 Incorporate sociocultural factors in scientific inquiry.
3. **Ethical and Social Responsibility in a Diverse World**
   - 3.1 Apply ethical standards to evaluate psychological science and practice.
   - 3.2 Build and enhance interpersonal relationships.
   - 3.3 Adopt values that build community at local, national, and global levels.

4. **Communication**
   - 4.1 Demonstrate effective writing for different purposes.
   - 4.2 Exhibit effective presentation skills for different purposes.
   - 4.3 Interact effectively with others.

5. **Professional Development**
   - 5.1 Apply psychological content and skills to career goals.
   - 5.2 Exhibit self-efficacy and self-regulation.
   - 5.3 Refine project-management skills.
   - 5.4 Enhance teamwork capacity.
   - 5.5 Develop meaningful professional direction for life after graduation.

**Academic Policies**

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Health Psychology Student Handbook*. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

**Program Progression**

Health Psychology students are required to obtain a “C” or better in all program-specific (PSY) classes and MTH 265: Introductory Statistics and IDS 254: Introduction to Research Design.

**Psychology Minor**

Students who are majoring in disciplines other than Health Psychology may choose to minor in Psychology. The following are the requirements for a psychology minor.

**Required**

- 15 credit hours, of which 9 must be earned at Jefferson
- PSY 101 Introduction to Psychology (or PSY 120 Introductory and Developmental Psychology) (3 credit hours)
- Psychology course work at any level (3 credit hours)
- Any level Research Methods course (3 credit hours)
- Psychology 300/400 level* (6 credit hours)

*Note: Students wishing to take a Psychology course with a lab must take IDS 254: Research Design as a prerequisite.
Bachelor of Science in Health Psychology
Program of Study (120 credit hours)

The following plan of study is a sample plan of study; the actual order in which classes are taken may vary.

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<td>PSY 110</td>
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**Semester 7: Fall**

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**Total Credits:** 16

**Semester 8: Spring**

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**Total Credits:** 16

**Credits from Non-Major Courses:** 65

**Credits from Major Courses:** 55

**Total Credits:** 120
Bachelor of Science in Health Sciences

Program Description

The Bachelor of Science in Health Sciences (BSHS) is a foundational degree for the student seeking to complete a Bachelor’s degree. The program serves students seeking entry into undergraduate or graduate programs in a specific healthcare profession, or educational enhancement for individuals wishing to advance their education/career.

Program Mission

The mission of the Health Sciences program is to provide a solid foundation of coursework in the health sciences for students seeking to enter the workforce, advance their prior educational accomplishments or to prepare those seeking a post-baccalaureate or graduate degree in a health-related field.

Program Outcomes

Upon completion of the BHS program, the graduate will:

1. Demonstrate a basic foundation in the behavioral, natural, social, and health sciences.
2. Integrate basic knowledge of the core principles in public health.
3. Examine the social, economic, political, ethical, and professional factors that influence individual and population health and healthcare delivery systems.
4. Demonstrate effective oral and written communication skills that display competency and professionalism in the health sciences.
5. Apply problem solving, critical thinking, and decision making skills based on empirical evidence and contextual frameworks.

Academic Policies

Students are expected to follow the policies published in the Jefferson Catalog and Jefferson Student Handbook.

Program Progression

All students must complete the requirements for at least one minor offered at Jefferson College. The student must achieve a minimum grade of "C" in all HSC and PBH courses along with all courses required for the minor. The student must complete two semesters of Service Learning in Community Health or complete the Health Sciences Capstone Project. The student must also complete a minimum of 25% of the Health Sciences program of study at Jefferson College.
Bachelors of Science in Health Sciences (121 credit hours)

The following is a sample plan of study. The actual order in which classes are taken may vary and students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. Transfer of credit is subject to the Transfer Credit Policy.

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<td>PBH 350</td>
<td>Principles of Public Health</td>
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</tr>
</tbody>
</table>

© Jefferson College of Health Sciences, 2015
Bachelor of Science in Health Sciences (121 credit hours)
Community Health Track (online)

The following is a sample plan of study. The actual order in which classes are taken may vary and students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. Transfer of credit is subject to the Transfer Credit Policy.
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<td>Communication in Professional Practice</td>
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<td>Nutrition</td>
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<td><strong>Semester 8</strong></td>
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<tr>
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<td>Global Health Issues</td>
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<td>HSC 491</td>
<td>Service Learning in Community Health II</td>
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<td>PBH 425</td>
<td>Environmental Health</td>
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</tbody>
</table>

**Total Credits**: 121
Bachelors of Science in Health Sciences: Pre-Graduate Track (120 credit hours)

The Pre-Graduate track is designed for students who plan to attend graduate schools in healthcare-related fields.

The following is a sample plan of study. The actual order in which classes are taken may vary and students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. Transfer of credit is subject to the Transfer Credit Policy.

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<td></td>
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<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
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<td>ENG 111</td>
<td>Grammar &amp; Composition I</td>
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<td>GEN 100</td>
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<td>Grammar &amp; Composition II</td>
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<tr>
<td>HLT 215</td>
<td>Medical Terminology</td>
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<tr>
<td>MTH 165 or 170</td>
<td>College Algebra or Precalculus with Trigonometry</td>
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<td>PHL 115</td>
<td>Foundations of Ethics</td>
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<td>BIO 211</td>
<td>Anatomy &amp; Physiology I</td>
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<td>CHM 244</td>
<td>Organic Chemistry I</td>
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<td>PHY 201</td>
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<td>PSY 101</td>
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<td>BIO 212</td>
<td>Anatomy &amp; Physiology II</td>
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<td>Issues in Community Health</td>
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<td>CHM/PHY ELE</td>
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**Semester 6**

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<td>U.S. Healthcare System</td>
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<tr>
<td>HSC 300</td>
<td>Foundations in Healthcare Research</td>
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<tr>
<td>PBH 350</td>
<td>Principles of Public Health</td>
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<tr>
<td>BIO/CHM ELE</td>
<td>Biology or Chemistry Elective 300-400 Level</td>
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**Semester 7**

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<td>Nutrition</td>
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<td>HSC 490 or HSC 485</td>
<td>Service Learning in Community Health I or Health Sciences Capstone Project I</td>
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<tr>
<td>IPE 400</td>
<td>Interprofessional Healthcare Experiences</td>
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<tr>
<td>BIO ELE</td>
<td>Biology Elective 300-400 Level</td>
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<tr>
<td>PBH/SOC ELE</td>
<td>Public Health or Sociology Elective</td>
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<tr>
<td>ELE</td>
<td>Elective</td>
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**Semester 8**

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<tr>
<td>HSC 450</td>
<td>Global Health Issues</td>
<td>3</td>
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<tr>
<td>HSC 491 or HSC 486</td>
<td>Service Learning in Community Health II or Health Sciences Capstone Project II</td>
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<td>BIO ELE</td>
<td>Biology Elective 300 – 400 Level</td>
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**Note:** Students in this track can fulfill the requirements for the Biology Minor.

**Bachelor of Science in Health Sciences: Pre-Graduate Track**

**Science/Math (54-55 credits):**
- **BIO** 22 credits
- **CHM** 16 credits
- **BIO/CHM/PHY** 6-7 credits
- **PHY** 4 credits
- **MTH** 6 credits

**Suggested BIO & CHM Electives:**

**100-200 Level**
- **BIO 101** General Biology I
- **BIO 102** General Biology II
BIO 220  Introduction to Cell and Molecular Biology

**300-400 Level**
BIO 300  Pathophysiology  
BIO 304  Genetics  
BIO 309  Physiological Foundations of Pharmacology  
BIO 321  Gross Anatomy I  
BIO 322  Gross Anatomy II  
BIO 401  Molecular Biology  
BIO 404  Cell Biology  
BIO 405  Cancer Biology  
BIO 430  Neuroanatomy & Neurophysiology  
BIO 412  Immunology  
CHM 361  Biochemistry II

**Minor in Health Studies**

Must complete a minimum of 15 credit hours, of which, 9 credits must be at the 300/400 level and 6 credits must be completed at Jefferson.

HLT 215:  Medical Terminology  (3 cr.)  
HSC 221:  Concepts of Disease  (3 cr.)  
HLT 301:  Nutrition  (3 cr.)  
IDS 201:  The Experience of Illness  (3 cr.)  
IDS 203:  Applied Spanish - Healthcare Profession  (3 cr.)  
IDS 302:  Statistics and Epidemiological Methods for Healthcare  (4 cr.)  
HCM 300:  U.S. Healthcare System  (3 cr.)  
IDS 307:  Topics in Interdisciplinary Healthcare  (3 cr.)  
HUM 308:  Critical Thinking  (3 cr.)  
IDS 320:  Transcultural Healthcare  (2 cr.)  
PBH 350:  Principles of Public Health  (4 cr.)  
HSC 450:  Global Health Issues  (3 cr.)  
SOC 301:  Race and Ethnicity in Healthcare  (3 cr.)  
SOC 320:  Deviance and Medicalization  (3 cr.)

**Minor in Public Health (15-16 credits)**

**Required Courses (9 credits)**

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<th>Course</th>
<th>Description</th>
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<td>PBH 350</td>
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<tr>
<td>PBH 370</td>
<td>Fundamentals of Epidemiology</td>
<td>3 credits</td>
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<tr>
<td>PBH 415 or PBH 425</td>
<td>Population Health Management OR Environmental Health</td>
<td>3 credits</td>
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**Elective Courses (6-7 credits) Select 2 courses from the following:**

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<th>Course Title</th>
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<td>U.S. Healthcare System</td>
<td>3</td>
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<tr>
<td>HES 452</td>
<td>Community Health &amp; Phys.I Activity Promotion</td>
<td>3</td>
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<tr>
<td>HSC 450/NSG 450</td>
<td>Global Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>NSG 420</td>
<td>Community Health Nursing</td>
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<tr>
<td>NSG 421</td>
<td>Promoting Health in the Community</td>
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<tr>
<td>PSY 235</td>
<td>Social Psychology</td>
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<tr>
<td>PSY 340</td>
<td>Health Behavior Change Methods</td>
<td>4</td>
</tr>
<tr>
<td>PSY 355</td>
<td>Health Psychology</td>
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<td>PSY 445</td>
<td>Community Psychology</td>
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<tr>
<td>SOC 210</td>
<td>Medical Sociology</td>
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<td>SOC 213</td>
<td>Social Issues in Healthcare</td>
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<td>SOC 301</td>
<td>Race &amp; Ethnicity</td>
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<tr>
<td>SOC 340</td>
<td>Appalachian Health and Culture</td>
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**Minor in Forensic Science**

**Required Courses (12 credits):**

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<tr>
<td>FOR 300</td>
<td>Introduction to Forensic Science</td>
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<tr>
<td>FOR 310</td>
<td>Crime Scene Investigation</td>
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</tr>
<tr>
<td>FOR 320</td>
<td>Introduction to Courts &amp; Criminal Law</td>
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<td>FOR 410</td>
<td>Special Topics in Forensic Science</td>
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**Elective Course: Select one of the following (3-4 credits)**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELE (BIO/CHM)</td>
<td>Biology (BIO) or Chemistry (CHM) elective*</td>
<td>3-4</td>
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*Excluding BIO 211, BIO 212, BIO 230, BIO 240*
Bachelor of Science in Healthcare Management

Introduction

The Healthcare Management (HCM) program educates a diverse community of students who have varying levels of work experience and education. The four year curriculum provides a broad base of knowledge and skills to prepare students with the needed general analytical and communication competencies, as well as management competencies for professional jobs in the field of healthcare management.

To meet the diverse needs of our student body, the HCM program offers a 100% online curriculum. Online courses are taught using technology that supports both synchronous and asynchronous course instruction. This methodology provides for meaningful interaction among students and the instructor while eliminating the need to attend class on campus. Synchronous instruction is usually scheduled during the evening hours to facilitate student availability. HCM faculty are available for student support as needed.

Healthcare Management students have the opportunity to specialize in two specialty tracks.

The **Long Term Care track** has an internship component that places students at a center for 400 hours or 8 credits. The internship hours can be completed in one semester or over multiple semesters to better meet student needs. Once the degree and internship hours are complete, graduates are eligible to sit for licensure as a Nursing Home Administrator. This licensure allows for both Nursing Home and Assisted Living Administration.

Our **Medical Practice Management track** offers a 120 hour internship or 3 credit course in a Medical Practice. Once the degree and internship are complete, the graduate will need two years of experience in a Medical Practice to sit for certification as a Certified Medical Practice Executive.

Mission Statement

Consistent with the College’s mission, the HCM program mission is to develop ethical and competent managers and leaders who are committed to improving the organization and delivery of healthcare services.

Program Accreditation, Approval, and Memberships

The Baccalaureate of Science in Healthcare Management is an associate member of the Association of University Programs in Health Administration (AUPHA) (2000 14 Street North, Suite 780, Arlington, VA 22201, Telephone: 703-894-0940). The program is a chapter member in the Upsilon Phi Delta Honor Society in Healthcare Management.
Program Outcomes

Consistent with all undergraduate students at Jefferson College of Health Sciences, HCM students are expected to be able to

1. Demonstrate knowledge of a broad range of social, behavioral, and environmental factors that influence individual and population health in the U.S.
2. Demonstrate knowledge and critical thinking skills in general business management concepts and practices.
3. Demonstrate knowledge and skills to effectively manage healthcare organizations within complex, competitive, regulatory, and legal environments.
4. Demonstrate the ability to apply, integrate, and synthesize acquired knowledge and skills toward the resolution of practical managerial issues and problems.
5. Demonstrate effective professional communication, cultural sensitivity, and a commitment to lifelong learning.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, Healthcare Management students are expected to follow the program policies as published in the BS Healthcare Management Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the program secretary.

Program Progression

All Healthcare Management students are expected to successfully complete the following courses prior to beginning junior level HCM professional courses:

- ENG 111 and ENG 112
- MTH 165 or 210

Additionally, healthcare management students are required to obtain a “C” or better in all 300-400 level classes required by the applicable healthcare management plan of study.
Healthcare Organizational Management Minor

Students who are majoring in disciplines other than Healthcare Management (HCM) may choose to minor in Healthcare Management. The following are requirements for a Healthcare Organizational Management minor.

Required:
Minimum of 15 credit hours (below), all of which must be earned at Jefferson.

- HCM 300 – U.S. Healthcare System - 3 credits
- HCM 302 – Healthcare Management – 4 credits
- HCM 325 – Health Information Systems – 3 credits
- HCM 330 – Human Resources Management in Healthcare – 4 credits
- HCM 420 – Legal and Ethical Issues in Healthcare – 4 credits
- HCM 430 – Managerial Communications – 3 credits

The above courses are typically taught as accelerated, online classes over 7 ½ weeks. Instructors may require students to participate in synchronous sessions to facilitate communication in addition to asynchronous class participation using Blackboard.
Bachelor of Science in Healthcare Management Program of Study
(121 credits)
The following is a sample plan of study. The actual order in which HCM and non HCM classes are taken may vary and HCM students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. The transfer of credit is subject to the Transfer Credit policy. At least 25 credits of upper division courses must be completed at Jefferson.

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<tr>
<td>ENG 111</td>
<td>Grammar and Composition I</td>
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<td>GEN 100</td>
<td>Academic Seminar</td>
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<td>PHL 115</td>
<td>Foundations of Ethics</td>
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<td>ELE</td>
<td>Social/Behavior Sciences Elective</td>
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<tr>
<td><strong>Total Credits:</strong></td>
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| **Semester 2: Spring**                      |                                                   |
| ENG 112 | Grammar and Composition II              | 3       |
| ELE     | Elective                               | 3       |
| SOC/PSY/HUM ELE | Social/Behaviors/Humanities Elective | 3       |
| ELE     | Elective                               | 3       |
| ELE     | Elective                               | 3       |
| **Total Credits:**                         | **15**   |

| **Semester 3: Fall**                        |                                                   |
| MTH ELE | Math Elective                           | 3       |
| NS ELE  | Natural Science Elective                | 3       |
| SOC/PSY ELE | Social/Behavioral Sciences Elective | 3       |
| ELE     | Elective                               | 3       |
| ELE     | Elective                               | 3       |
| **Total Credits:**                         | **15**   |

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| ELE     | Elective                               | 3       |
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|        | **Semester 8: Fall**                             |         |
| IPE 400| Inter-Professional Healthcare Experience         | 1       |
| PBH 415| Population Health Management                     | 3       |
| HCM 420| Legal & Ethical Issues in Healthcare             | 4       |
| HCM 430| Managerial Communications                        | 3       |
| HCM 442| Healthcare Revenue, Expense, & Reimbursement     | 4       |
|        | **Total Credits:**                               | **15**  |

|        | **Semester 9: Spring**                           |         |
| HCM 411| Healthcare Quality Management                    | 4       |
| HCM 485| Strategic Management & Marketing                 | 4       |
| HCM 490| Organizational Development & Leadership          | 4       |
|        | **Total Credits:**                               | **16**  |

**INTERNERNSHIP OPTION 2**

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|        | **Semester 8: Fall**                             |         |
| IPE 400| Inter-Professional Healthcare Experience         | 1       |
| PBH 415| Population Health Management                     | 3       |
| HCM 420| Legal & Ethical Issues in Healthcare             | 4       |
| HCM 430| Managerial Communications                        | 3       |
| HCM 442| Healthcare Revenue, Expense, & Reimbursement     | 4       |
|        | **Total Credits:**                               | **15**  |

|        | **Semester 9: Spring**                           |         |
| HCM 493| Long-Term Care Internship III                    | 4       |
| HCM 411| Healthcare Quality Management                    | 4       |
| HCM 485| Strategic Management & Marketing                 | 4       |
| HCM 490| Organizational Development & Leadership          | 4       |
|        | **Total Credits:**                               | **16**  |
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<tr>
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</table>
Certificate in Medical Practice Management

This certificate is designed for students who already have an Associates or Bachelor’s degree in another area. The certificate consists of 6 courses and provides core knowledge to be eligible to sit for the certification exam. The 6 courses can also be applied towards the Bachelor of Science in HCM.

Program of Study- Certificate in Medical Practice Management

<table>
<thead>
<tr>
<th>PREFIX</th>
<th>COURSE TITLE</th>
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<tr>
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<tr>
<td>HCM 430</td>
<td>Managerial Communications</td>
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<td>HCM 442</td>
<td>Healthcare Revenue, Expense &amp; Reimbursement</td>
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<td>HCM 411</td>
<td>Healthcare Quality Management</td>
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<td>HCM 460</td>
<td>Healthcare Operations Management</td>
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<td>HCM 325</td>
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<td>Human Resource Management in Healthcare</td>
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Humanities and Social Sciences Program

Introduction

The Humanities and Social Sciences Program at Jefferson provides core curriculum courses and elective courses that provide students with opportunities to learn and develop humanistic approaches to the study of health sciences and professional excellence in the healthcare field.

Courses in disciplines such as philosophy, sociology, English, and interdisciplinary studies provide students with the skills necessary for problem-solving, communicating effectively in the workplace, and interacting with individuals from all walks of life. Humanities and social sciences classes provide the general foundation of knowledge upon which solid healthcare skills are built.

Mission

The mission of Humanities and Social Sciences is to support the development of our healthcare community through the provision of learning opportunities to think critically and creatively, to communicate effectively, to seek meaningful information, to adapt to change, and to respect diversity.

Healthcare Humanities Minor

The Healthcare Humanities Minor at Jefferson provides broad-based interdisciplinary learning that includes and supports personal and professional integrity, narrative and cultural competency, the ethical and spiritual dimensions of healthcare, and the holistic development of the individual so valued in the healthcare community.

Required: a minimum of 15 credit hours, 12 of which must be earned at Jefferson

- IDS 201 The Experience of Illness (3 credit hours)
- IDS 215 Bioethics (3 credit hours)

PLUS

At least 9 credit hours from the following:

- ENG 301 Women’s Studies in Literature and Culture (3 credit hours)
- IDS 340 Appalachian Health and Culture (3 credit hours)
- SOC 301 Race and Ethnicity in Healthcare (3 credit hours)
- IDS 308 Critical Thinking: A Framework for Healthcare Decision-making (3 credit hours)
- PHL 320 World Religions (3 credit hours)
- IDS 372/NSG 372 Spirituality in Healthcare (3 credit hours)
Bachelor of Sciences in Medical Laboratory Sciences Program

Introduction

Medical Laboratory Scientists are healthcare professionals who perform diagnostic testing, usually in a clinical laboratory setting. Our profession has previously been referred to as Clinical Laboratory Science and as Medical Technology. Students who successfully complete this program will be eligible for the national certification examination administered by American Society of Clinical Pathology (ASCP).

Students in the MLS program experience a blend of traditional lecture courses, laboratory classes, and clinical rotations to prepare them for employment in the medical laboratory field. While engaged in clinical rotations, students will be supervised by certified laboratory professionals, and will achieve entry level competency in each department of the clinical laboratory.

Employment opportunities exist in clinical laboratories, physician office laboratories, research laboratories, industry, sales, test and instrument development, and veterinary laboratories. Program faculty actively assist students with job searches and help students prepare for interviews.

Mission

The mission of the Medical Laboratory Science Program is to prepare ethical, knowledgeable, competent, and caring laboratory scientists who possess a broad knowledge base in the laboratory science field, and are prepared to provide excellent patient care to a diverse population of individuals.

Vision

Graduates of the Jefferson College of Health Sciences Medical Laboratory Science Program will be nationally recognized as employees of choice for the medical, research and reference laboratory fields.

Program Accreditation

The Medical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119. Website: www.naacs.org

Physical Demands

- Repetitive movement to include keyboarding, pipetting, twisting/turning, bending.
- Possible lifting and carrying of supplies and equipment up to approximately 10 pounds.
- Intermittent standing, walking and sitting.
• Potential stair ascending and descending.
• Visual ability to observe equipment performance, read computer screens and paperwork, perceive depth and color etc.

Working Conditions

• May be exposed to infectious diseases.
• May require extensive standing, sitting, bending, walking and some heavy lifting.
• May work with hazardous chemicals or noxious odors.
• May require travel between facilities.
• May require working different shifts.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Medical Laboratory Science Program Handbook. These handbooks are available electronically on the program’s blackboard site.

Certification Information

Upon graduation from this program graduates are eligible sit for a national certification examination administered by the American Society of Clinical Pathology. Their offices are headquartered at 33 West Monroe Street, Suite 1600, Chicago, IL 60603. Phone: (312) 541-4999. www.ascp.org

Some states also require licensure; requirements are different in each state.

<table>
<thead>
<tr>
<th>Medical Laboratory Science Program of Study (127 credits)</th>
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<td>BIO 102/L</td>
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<td>CHM 112/L</td>
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<td>MTH 265</td>
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**Total Credits:** 36
Bachelor of Science in Nursing

Introduction

The Bachelor of Science in Nursing (BSN) program prepares graduates for the professional roles of provider, designer, manager, and coordinator of care. In addition, the graduate is prepared as a member of the profession of nursing. The BSN program prepares the graduate to deliver and evaluate patient-centered care while demonstrating clinical competency, critical thinking skills and caring behaviors. The BSN graduate promotes health to individuals, families, groups and communities and implements evidenced based interventions when health is altered. The BSN graduate works in a variety of health care and community settings. Graduates of the BSN program are prepared to pursue graduate education. The College offers three tracks to the BSN degree.

The Pre-licensure Traditional BSN Track (TBSN) is designed for the student who does not have a previous degree in nursing. The track builds on a strong foundation of general education courses which provides students with the knowledge and cognitive skills necessary to enter the nursing program. Graduates of the TBSN track will be prepared to take the National Council Licensing Examination-Registered Nurse (NCLEX-RN).

The Pre-licensure Accelerated BSN Track (ABSN) is designed for student who have earned a bachelors degree in another field, but who desire to pursue a career in nursing. This track gives students the opportunity to earn a BSN degree at Jefferson in 4 semesters (16 months) following completion of 33 hours of prerequisites listed on the ABSN Program of Study. Due to the full-time demands of this program, it is strongly recommended that students not work while enrolled in the nursing courses. Graduates of the Accelerated BSN Track will be prepared to take the National Council Licensing Examination-Registered Nurse (NCLEX-RN).

The Post-licensure RN to BSN Track is designed to provide Registered Nurses the opportunity to obtain a Bachelor in Science Degree in Nursing in preparation for professional leadership and career enhancement. This track builds upon previous education and experiences of Registered Nurses and features personalized advisement, support and convenient course scheduling. This track is offered in online learning format, allowing students to continue to work while they pursue their educational objectives. Validation of requisite knowledge is achieved through performance in specified nursing courses.

Nursing Programs Mission

Jefferson Nursing Programs promote excellence in nursing education, practice, scholarship, and service. Through innovative interprofessional practice and education experiences, graduates are empowered to provide leadership in the rapidly changing and culturally diverse healthcare environment. Graduates
contribute to the health of all populations as ethical clinicians, educators, researchers, and leaders.

**Program Accreditation, Approval, and Memberships**

The BSN program is accredited by the Commission on Collegiate Nursing Education (One DuPont Circle, NW, Suite 530 Washington, DC 20036, Phone 202-887-6791). The pre-licensure BSN program is approved by the Virginia Board of Nursing, Perimeter Center, 9960 Maryland Dr., Suite 300, Henrico, VA 23233-1463. Phone: (804) 367-4515. The Department of Nursing is a member of the American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN).

**Program Outcomes**

Graduates of the Bachelor of Science in Nursing program will be able to

1. Provide safe, quality patient-centered care while integrating cultural competence, and evidence-based practice,

2. Integrate knowledge and skills in informatics and patient care technology into the delivery of patient-centered care,

3. Demonstrate skills in leadership, quality improvement, and patient safety to provide high quality care within interprofessional teams,

4. Incorporate strategies to improve and promote individual, family and population health in a variety of health care settings,

5. Examine the impact of socio-cultural, legal, economic, regulatory and political factors influencing healthcare delivery and practice, and

6. Demonstrate a commitment to professionalism, professional values and lifelong learning.

**Minimum Performance Standards**

In compliance with the Americans with Disabilities Act, nursing students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. Any student who may require accommodations should schedule an appointment with the Coordinator of Services for Students with Disabilities. The Minimum Performance Standards for Admission and Progression include:

**Essential Mental Abilities:**

1. Follow instructions and rules.
2. Maintain reality orientation accompanied by short and long term memory.
3. Apply basic mathematical skills.
4. Demonstrate safe nursing practice within the defined clinical time period.
5. Display gross and fine motor abilities sufficient to provide safe and effective nursing care.
6. Utilize sufficient critical thinking abilities for clinical judgment.

**Essential Communication Skills:**

1. Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.
2. Effectively utilize interpersonal abilities to interact with diverse individuals, families and groups.
3. Demonstrate communication abilities sufficient for clear interaction with others in verbal and written form.
4. Read and accurately interpret written communications (i.e., test questions, MD orders, etc.) without assistance.

**Essential Physical Abilities:**

1. Stand and walk for six to twelve hours/day.
2. Walk for prolonged periods from one area to another over an eight to twelve hour period.
3. Bend, squat and kneel.
4. Assist in lifting or moving clients of all age groups and weights.
5. Perform CPR (i.e., move above patient to compress chest and manually ventilate patient).
6. Work with arms fully extended overhead.
7. Use hands for grasping, pushing, pulling and fine manipulation.
8. Demonstrate eye/hand coordination for manipulation of equipment (i.e., syringes, procedures, etc.).
9. Utilize auditory abilities sufficient to monitor and assess health needs.
10. Demonstrate visual abilities sufficient for observation and assessment necessary for nursing care.
11. Display sufficient tactile abilities for physical assessment.

**Program Progression**

Pre-licensure accelerated BSN and traditional BSN students are required to purchase NCLEX-RN preparation resources each semester beginning with the first nursing course.

**All BSN Students (in any track)**

To continue in the BSN Program, the student must:

- Maintain at least a 2.50 cumulative GPA
- Earn a grade of “C” or better in all required interdisciplinary, interprofessional, nursing, English, math and science courses
- Follow the academic policies provided in the BSN Student Handbook
Pre-licensure BSN Students (non-accelerated)

To register for the first Nursing courses the pre-licensure BSN student must meet the following criteria:

- A cumulative GPA of 2.50 or higher
- Completion of all first year courses in the program of study
- Enrollment in all required third semester courses
- A “C” or higher in all required interdisciplinary, interprofessional, English, math and science courses
- Required science courses must have been completed within the past 5 years.
- Students who fail two required science courses or any required science course twice within the 5 year time-frame are not eligible for entry into nursing courses.

Pre-Licensure Traditional BSN Program Tiered Placement Criteria for Upper Division Nursing Courses

Progression to upper division (300-level) nursing courses is based on meeting the following criteria:

- Score at or above the 51st percentile on the Kaplan Admissions test
- Pass NSG 255 and NSG 203 on the first attempt with a final course grade of “C” or above
- Cumulative Grade Point Average as follows:
  - 3.0 and above: Guaranteed progression
  - 2.5-2.9: Ranked for placement on space available basis
  - Less than 2.5: Not eligible for progression

Post-licensure RN to BSN Students

To enroll in upper division nursing courses, the RN-BSN student must meet the following criteria:

- Current RN licensure. Students are expected to submit licensure renewal as necessary.
- Completion of prerequisite courses with a minimum cumulative program GPA of 2.50
- Earn a grade of “C” or better in all required interdisciplinary, interprofessional, nursing, English, math and science courses

Licensing Information

The application for registered nurse (RN) licensure in the Commonwealth of Virginia includes questions regarding previous licensure as an LPN or RN, violations of the law constituting a felony or misdemeanor, alcohol or chemical dependency and treatment for physical or mental disorders. According to Section 54.1-3007 of the statutes and regulations of the Board of Nursing, Code of Virginia:
The Board may refuse to admit a candidate to any examination, refuse to issue a license, certificate, or registration to any applicant and may suspend any license, certificate, registration, or multistate licensure privilege for a stated period or indefinitely, or revoke any license, certificate, registration, or multistate licensure privilege, or censure or reprimand any licensee, certificate holder, registrant, or multistate licensure privilege holder, or place him on probation for such time as it may designate for any of the following causes:

1. Fraud or deceit in procuring or attempting to procure a license, certificate, or registration;
2. Unprofessional conduct;
3. Willful or repeated violation of any of the provisions of this chapter;
4. Conviction of any felony or any misdemeanor involving moral turpitude;
5. Practicing in a manner contrary to the standards of ethics or in such a manner as to make his practice a danger to the health and welfare of patients or to the public;
6. Use of alcohol or drugs to the extent that such use renders him unsafe to practice, or any mental or physical illness rendering him unsafe to practice;
7. The denial, revocation, suspension or restriction of a license, certificate, registration, or multistate licensure privilege to practice in another state, the District of Columbia or a United States possession or territory; or
8. Abuse, negligent practice, or misappropriation of a patient's or resident's property.


For questions regarding individual situations pertaining to the above, students should contact: Virginia Board of Nursing Perimeter Center, 9960 Maryland Dr., Suite 300, Henrico, VA 23233-1463. Phone: (804) 367-4515; Fax: (804) 527-4455; Complaints: (800) 533-1560. E-mail: nursebd@dhp.virginia.gov Website: http://www.dhp.state.va.us/nursing

Validation of Requisite Knowledge

Licensure as a Registered Nurse (RN) is required for admission to the Post-licensure RN to BSN track. The RN licensure examination (NCLEX-RN) is administered by the National Council of State Boards of Nursing (NCSBN), which has established required criteria for nursing education programs that “enable the student to develop the nursing knowledge, skills and competencies necessary for the level, scope and standards of nursing practice consistent with the level of licensure” (NCSBN, 2006, Article IX, 9.1.2). These required criteria serve as the foundation for a validation process in which 54 credit hours are awarded for courses taken in an AD or diploma nursing program, thus allowing RN to BSN students to receive credit for their basic nursing preparation.

As described in the following program of study, this (validation) works by a process of knowledge validation that is linked to completion of three specific nursing courses with a grade of “C” or better: The validation credit hours are held in escrow and are awarded in the final semester of the program of study.
Challenge Credit

For post-licensure RN to BSN students, a written challenge examination may be taken for the Pharmacology course. If not successfully completed prior to enrolling in the final semester nursing courses, the Pharmacology course must then be taken. There is a fee to cover the cost of administering the exam. After successfully passing the exam, the student will be charged a fee for the Pharmacology course and at this time, challenge credit is awarded. Students may arrange to take the challenge exam by contacting the Nursing department secretary.

Credit for Certification

Many post-licensure RN to BSN students hold certifications in specialty areas of nursing practice. The Nursing Department recognizes that certification represents the attainment of significant knowledge in areas of nursing beyond basic practice. A written request for elective credit with evidence of current certification must be submitted to the BSN Post-Licensure Program Director. Students are eligible for only one certification/3 credit elective.

Bachelor of Science in Nursing: Pre-licensure Track
Program of Study (122 Credits)
Courses must be taken sequentially in the order presented.

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<td>Anatomy &amp; Physiology I with Lab</td>
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<td>PSY 220</td>
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<td>IDS 101</td>
<td>Intro to Patient Care Skills*</td>
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<td>IPE 200</td>
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# Bachelor of Science in Nursing

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<td>BIO 309</td>
<td>Physiological Foundations of Pharmacology</td>
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<td>MTH 265</td>
<td>Introductory Statistics</td>
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<td>NSG 201</td>
<td>Dosage Calculations</td>
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<td>NSG 203</td>
<td>Foundations for Professional Nursing Practice</td>
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<td>NSG 255/255L</td>
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<td>IPE 300</td>
<td>Interprofessional Healthcare Discovery and Collaboration</td>
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<td>Professional Nursing Skills I</td>
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<td>NSG 314</td>
<td>Nursing Process in Psychiatric/Mental Health</td>
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<td>Informatics &amp; Technology in Healthcare</td>
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**Credits from Non-Major Courses:** 55

**Credits from Major Courses:** 67

**Total Credits:** 122

*IDS 101 Intro to Patient Care Skills waived for CNA with current certification who passes pre-course check-off.*
Bachelor of Science in Nursing: Accelerated Track (Fall Cohort)
Program of Study (122 Credits)

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Bachelor of Science in Nursing: Accelerated Track (Spring Cohort)
Program of Study (122 Credits)

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*IDS 101  Intro to Patient Care Skills waived for CNA with current certification who pass the pre-course check-off.

Bachelor of Science in Nursing: Accelerated Track (Spring Cohort)
Program of Study (122 Credits)

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**Prerequisites:** The following MUST be completed prior to beginning Nursing Courses

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**Nursing Courses**

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<td>NSG 204</td>
<td>Foundations for Professional Nursing Practice for ABSN</td>
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<td>NSG 256/256L</td>
<td>Health Assessment for ABSN</td>
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<td>Pharmacology</td>
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**Semester 2: Summer**

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# Bachelor of Science in Nursing: Post-licensure Track (Full-time)

## Program of Study (122 Credits)

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*Courses with an * must be taken prior to beginning nursing courses. Nursing courses must be taken sequentially.*

## Semester 1: Spring

| IPE 200 | Fundamentals of Teamwork | 1 |
| NSG 300 | Pharmacology (may challenge) | 3 |
| NSG 312 | RN Nursing Concepts, Roles and Issues | 3 |
| NSG 320 | Informatics & Technology in Healthcare | 3 |
| NSG 334 | RN Writing in Professional Nursing | 2 |

**Total Credits:** 12

## Semester 2: Fall

| IPE 300 | Interprofessional Healthcare Discovery & Collaboration | 1 |
| NSG 342 | RN Health Assessment | 3 |
| NSG 410 | Research Applications of Healthcare | 3 |
| NSG 475 | RN Leadership & Health Policy in Nursing | 3 |
| NSG 475C | RN Leadership & Health Policy Clinical | 2 |

**Total Credits:** 12

## Semester 3: Spring

| IPE 400 | Interprofessional Healthcare Experiences | 1 |
| NSG 375 | RN Gerontological Nursing | 3 |
| NSG 420 | RN Community Health Nursing | 3 |
| NSG 422C | RN Community Health Nursing-Clinical | 2 |
| NSG 486 | RN Capstone | 3 |

**Total Credits:** 12

**Validation Credits for Requisite Knowledge**: Students who successfully complete NSG 486 will be awarded 54 credit hours

**Validation Total Credits**: 54

**Credits from Non-Major Courses**: 35

**Credits from Major Courses**: 33

**Total Credits**: 122

© Jefferson College of Health Sciences, 2015
Bachelor of Science in Nursing: Post-licensure Track (Part-time) Program of Study (122 Credits)

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Total Credits: 32

**Semester 1: Spring**

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Total Credits: 8

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Total Credits: 7

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Total Credits: 6

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Total Credits: 8
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Bachelor of Science in Respiratory Therapy

Introduction

Respiratory Therapy (RT) is a unique, growing healthcare profession in which highly-skilled individuals think critically while consulting with physicians and other allied health professionals to diagnose and treat patients with disorders associated with the respiratory and cardiovascular systems.

The Bachelor of Science in Respiratory Therapy (BSRT) program provides students with the knowledge, skills and hands-on experience to begin and advance their career in clinical, managerial, educational, and research positions. The program produces graduates with the knowledge and skills expected of modern respiratory therapists.

Mission Statement

The mission of the RTH program is to prepare professional, ethical, knowledgeable, competent, and compassionate registered respiratory therapists.

Program Accreditation

The Respiratory Therapy program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244, Phone 817-283-2835. For information regarding the field, go to www.AARC.org.

Program Outcomes

Upon completion of the Bachelor of Science in Respiratory Therapy program our graduates will demonstrate competency in cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory therapy as performed by registered respiratory therapists. Graduates will be able to

1. demonstrate critical thinking skills with a comprehensive knowledge base (cognitive skills) by assessing the patient’s condition, developing a plan of treatment, and modifying that treatment as needed so that safe and quality cardio-respiratory therapy is given,

2. demonstrate competency in diagnostic and therapeutic clinical (psychomotor) skills necessary to perform the expanding number of procedures that fall under cardiopulmonary care,
3. demonstrate professional, ethical, caring, and culturally competent behaviors (affective skills) toward the patient, family members, and other members of the interdisciplinary team,

4. integrate health promotion and disease prevention strategies into current healthcare practice while focusing on quality and cost-effective protocols,

5. demonstrate effective professional communication,

6. use empirical, evidence-based literature to support decisions within the scientific field,

7. pursue graduate education in education, management, research, and other health care related fields.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, respiratory therapy students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. Any student who may require accommodations should schedule an appointment with the Coordinator of Services for Students with Disabilities. The Minimum Performance Standards for Admission and Progression include:

**Essential Mental Abilities:**
- Follow instructions and rules.
- Maintain reality orientation accompanied by short and long term memory.
- Apply basic mathematical and algebraic skills without the use of a calculator.
- Demonstrate safe practice within the defined clinical time period.
- Critical thinking ability sufficient for clinical judgment and for making quick lifesaving decisions.

**Essential Communication Skills:**
- Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.
- Interpersonal abilities sufficient to interact with diverse individuals, families and groups.
- Communication abilities sufficient for clear interaction with others in verbal and written form.
- Ability to independently read and accurately interpret written communications (e.g., test questions, MD orders).

**Essential Physical Abilities:**
- Gross and fine motor abilities sufficient to provide safe and effective care.
- Stand and walk for eight to twelve hours/day.
- Walk quickly in response to emergencies and lifesaving procedures.
- Bend, squat, kneel, and twist upper and lower back.
• Assist in lifting or moving clients of all age groups and weights.
• Lift small equipment up to 35 pounds.
• Perform CPR (e.g., move above patient to compress chest and manually ventilate patient).
• Work with arms fully extended overhead.
• Use hands for grasping, pushing, pulling and fine manipulation.
• Demonstrate eye/hand coordination for manipulation of equipment (e.g., syringes, procedures, etc.).
• Auditory abilities sufficient to hear alarms, beepers, and pages.
• Ability to withstand sudden alarms, sounds, and flashing lights.
• Auditory abilities to monitor breath sounds with a stethoscope and assess health needs.
• Visual abilities to see all colors of the spectrum, distinguish calibrated markers of 0.1 mm, identify digital displays and controls in low light conditions, determine depth of instrumentation placement, and read small print on medicine containers.
• Tactile ability sufficient for physical assessment.

Professional Behavior

The faculty expects students to exhibit professional behavior. The following is a list of expected professional behaviors:
• Demonstrates safety and honesty in all situations.
• Incorporates professional and ethical standards, including the Patient Bill of Rights, and the AARC Statement of Ethics and Professional Behavior.
• Incorporates respiratory therapy policies and procedures, standards of care, and clinical practice guidelines as appropriate.
• Demonstrates professional demeanor (e.g., dress code and smoking policies per college and program handbook, respect for others, accepts criticism, cooperative, controls temper, attentive and uses professional language).

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Respiratory Therapy Program Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

In addition to the “Minimum Performance Standards” listed above, RTH students must adhere to the following college probation and dismissal policies and the RTH program standards to remain in good academic standing:
Academic Probation from a Program / Major

Should a student earn less than a minimum grade of “C” in a program-specific or upper level biology course (BIO 253, 300), or earn an “Unsatisfactory” in a clinical component, the student will be placed on program probation and may be ineligible to take further program specific courses. The student may retake the course during the next academic session in which the course is offered. When the student completes the course with a grade of “C” or better or “Satisfactory,” probationary status will be removed. If the student is otherwise eligible to remain at the College during program probation, the student may continue to be enrolled in general education courses.

Academic Dismissal from a Program/Major

An unsatisfactory evaluation is a course grade of "D" or "F" and/or a clinical “Unsatisfactory.” The accumulation of two unsatisfactory final course grades, either sequentially or concurrently, in program-specific or upper level biology courses (BIO 253, 300) will result in program dismissal.

Even if the student has retaken a program-specific course or upper-level biology course in which an initial unsatisfactory evaluation was received, that initial unsatisfactory evaluation will still count in the accumulation of two unsatisfactory evaluations.

Petition for re-admission to the program will be considered on an individual basis by the program's admissions committee. (A student must go through the College's general admission procedure for readmission to the College if the student has not attended in 12 months or more).

Upon written notification of the program dismissal, the student's status will be changed by the Registrar's office to “non-major” status. While in “non-major” status the student will be ineligible for financial aid. The student will be referred for advising by a counselor in the Student Affairs Department and then must submit a Change of Major Request form for another major. The student will have until the last date of the drop-add period in the following semester to submit an approved and signed Change of Major Request form to the Registrar's office.

RTH Program Additional Standards

1. Complete coursework within the first two years of the plan of study (exceptions with Program Director approval) with a cumulative GPA of 2.5 or above to progress to junior status.
2. Junior level status is based on cohort space availability (internal candidates maintain priority)

Licensing Information

Upon completion of the program and upon successful completion of the Therapist
Multiple Choice (TMC) examination, the student is eligible to apply for licensure in any state in which they plan to obtain employment. In the Commonwealth of Virginia, licensure can be obtained by applying to the Virginia State Board of Medicine. Following completion of the TMC examination, the student is able to take the Clinical Simulation Exam (CSE) to be credentialed as a Registered Respiratory Therapist.

**Bachelor of Science in Respiratory Therapy**
Program of Study (120 credit hours)

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<tr>
<th>PREFIX</th>
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<th>CREDITS</th>
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<td>RTH 420</td>
<td>Neonatal/Pediatric Respiratory Therapy</td>
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<td>RTH 430</td>
<td>Patient Case Management I</td>
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**Credits from Non-major**: 66

**Credits from major**: 54

**Total Credits**: 120
Associate of Applied Science in Occupational Therapy Assistant

Introduction

The mission of the Occupational Therapy Assistant Program at Jefferson College of Health Sciences is to prepare within a scholarly environment, ethical, knowledgeable, competent, and caring occupational therapy assistants who value lifelong learning, client advocacy, and evidence-based practice as an instrument and testament of professionalism.

“Occupational therapy is based on the belief that occupations may be used for health promotion and wellness, remediation or restoration, health maintenance, disease and injury prevention, and compensation/adaptation. The use of occupation to promote individual, community, and population health is the core of occupational therapy practice, education, research, and advocacy.”

“The focus and outcome of occupational therapy are individuals’ engagement in meaningful occupations that support their participation in life situations. Occupational therapy practitioners conceptualize occupations as both a means and an end to therapy. That is, there is therapeutic value in occupational engagement as a change agent, and engagement in occupations is also the ultimate goal of therapy.”


To accomplish the goals of the profession as well as the mission of our program, the Occupational Therapy Assistant program at Jefferson College of Health Sciences offers a two-year Associate of Applied Science degree program designed to prepare students for careers as occupational therapy assistants (OTAs). The OTA works under the supervision of an occupational therapist to assist in the evaluation process and carry out interventions in a wide variety of clinical settings. OTAs have opportunities to obtain employment in current and emerging practice settings such as, but not limited to hospitals, skilled nursing facilities, rehabilitation centers, outpatient clinics, private practices, home health agencies, community agencies, and schools.

Program Accreditation

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA’s telephone number is (301) 652-AOTA. Website: http://www.aota.org and www.acoteonline.org
Program Outcomes

To fulfill its mission, the OTA program strives to produce graduates who:

1. Demonstrate an understanding of the professions’ code of ethics as established by AOTA.
2. Demonstrate competency in the technical skills necessary to perform entry-level OTA intervention.
3. Demonstrate interaction that reflects respect for others’ cultural backgrounds and behaviors.
4. Communicate effectively by conveying and receiving information with appropriate technology.
5. Demonstrate a basic appreciation for the research process and evidence-based practice.
6. Advocate for the effective delivery, use, and benefits of occupational therapy services.
7. Act as advocates for the clients for whom occupational therapy intervention is provided.
8. Provide service to their communities and the profession.
9. Acknowledge the benefits of interdisciplinary and interprofessional intervention.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, occupational therapy students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives in all learning environments, i.e. classroom, laboratory, fieldwork, and community experiences. Any student who may require accommodations should schedule an appointment with Coordinator of Services for Students with Disabilities. The Minimum Performance Standards for admission and progression include:

1. Attend and successfully pass all occupational therapy assistant, general education, and supporting courses, and maintain a minimum grade point average of 2.0.
2. Attend and successfully pass all Level I and Level II fieldwork experiences.
3. Comprehend and use the English language, both verbally and in writing, in a way that is understandable and adheres to English rules of grammar, spelling, punctuation, and sentence and paragraph composition and that reflects an understanding of complex and technical information.
4. Communicate by completing written assignments in standard organized English in a timely manner.
5. Use professional terminology correctly and accurately interpret its meaning to others.
6. Demonstrate clinically appropriate judgment, flexibility, problem solving, and reasoning skills to achieve the learning objectives and fulfill responsibilities of the academic program and fieldwork sites.
7. Attend to, prioritize, and complete multiple task responsibilities in an effective, accurate, and timely manner.
8. Apply effective and therapeutic teaching, dyadic, and group skills to complete the learning objectives and responsibilities of the academic program and the fieldwork sites.
9. Demonstrate accurate, comprehensive documentation skills that adhere to agency, funding, and occupational therapy guidelines.
10. Demonstrate sensorimotor skills, mobility, and general endurance necessary to effectively and safely complete the learning tasks, contribute to the occupational therapy evaluation process, and implement intervention techniques in the academic and fieldwork environments.
11. Navigate to and around the learning environments associated with the academic and fieldwork components of the program.
12. Demonstrate personal, consumer, and environmental safety precautions.
13. Work independently and collaboratively to achieve the learning objectives and responsibilities of the academic program and fieldwork sites.
14. Demonstrate effective and adequate coping skills regarding the learning processes, fieldwork experiences, supervisory relations, interpersonal interactions, and professional and personal responsibilities associated with an intensive educational program, in a timely and professional manner.
15. Abide by the Occupational Therapy Code of Ethics, Standards of Practice, and policies and procedures of the College, the Program, and previously stated learning environments.
16. Respect and demonstrate sensitivity to the contributions and cultural diversity of peers, faculty, supervisors, other professionals, clients, their significant others, and the public.
17. Participate appropriately and effectively in the assessment and direction of one’s own learning processes and needs.
18. Modify one’s own behavior/performance in response to feedback from instructors, fieldwork educators, and peers to achieve the learning objectives and the responsibilities of the program and fieldwork sites.

Working Conditions:

1. Exposure to contagious diseases, body fluids, and cleaning materials.
2. Patient care environments, office environments, and patients' homes.
3. Out-of-doors in all weather conditions as required to complete learning objectives and activities.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Occupational Therapy Assistant Program Handbook. This handbook is available electronically on the OTA Program’s Blackboard site.
Program Progression

The OTA program of study is designed to occur in a specific sequence. Courses with the OTA prefix must be taken sequentially, in the order and during the semester presented in the program of study. It is critical that information learned be retained, as it then becomes the building blocks for acquisition of future skills. All courses continue to build on one another until the entry-level skills of an occupational therapy assistant are achieved.

Guidelines for Progression

- Failure to achieve a grade of C or better in courses with an OTA prefix.
  - Students are not allowed to take OTA prefix courses, however are able to continue with general education courses following prerequisite and corequisite requirements.

- Failure to achieve a grade of C or better in BIO 211/L, and BIO 212/L.
  - Students are allowed to take OTA prefix courses if BIO courses were taken prior to the required semester.
  - Students are not allowed to take OTA prefix courses, if BIO courses were taken during the required semester. Students are able to continue with general education courses following prerequisite and corequisite requirements.

Program Probation:

Program probation results if one of the following occurs:

1. A student receives a grade less than a C in any course with an OTA prefix or BIO 211/L or BIO 212/L.
2. A student receives a grade less than a C in two courses with an OTA prefix and/or one OTA prefix and BIO 211/L or BIO 212/L within the same semester.

Program Dismissal:

Program dismissal results if a student receives 2 or more grades lower than a C in courses with OTA prefixes and/or BIO 211/211L and/or BIO 212/212L, across the plan of study. Students dismissed from the OTA Program are not allowed to continue within the OTA program or be readmitted to the OTA program. The department of Student Affairs will assume academic advising at this point.

The OTA Program reserves the right to place students on probation or dismiss them from the Program, if they demonstrate unprofessional behaviors.

A three-year track is also offered for individuals who wish to extend their academic program. Students should work closely with their advisor to develop an
adjusted program of study. Courses must continue to be taken in sequence, noting appropriate prerequisite and corequisite courses. Typically, the three-year track allows students to take general education courses the first year and OTA courses the second and third years. All college and program policies apply to this three year track plan of study.

Certification and Licensure Information

Upon graduation from the Program, graduates are eligible to take the national certification examination for the Occupational Therapy Assistant, administered by the National Board for Certification in Occupational Therapy (NBCOT). Information about the National Certification Exam can be found at http://www.nbcot.org.

After notification of passing the exam, the individual is a Certified Occupational Therapy Assistant (COTA). Most states, including Virginia, require licensure in order to practice, and state licenses are usually based on the results of the NBCOT Certification Examination. Each state has its own criteria for granting licensure. Graduates who plan to obtain a license from other states, must contact that state’s licensing agency. Information about licensure for Virginia Occupational Therapy Assistants can be found at http://www.dhp.virginia.gov/medicine/.

NOTE: NBCOT’s certification examination application contains “Character Questions” that must be answered by all exam candidates applying for the certification examination. Applicants who answer “yes” to any of these questions must look for further detail regarding documentation requirements to be submitted to and reviewed by NBCOT before the examination application will be approved. For early review, an individual who is considering entering an educational program or has already entered an educational program can have his or her background reviewed prior to actually applying for the exam by requesting an early determination review. There is a fee for this review. For additional information contact http://www.nbcot.org, click on “Certification Candidates,” then “Character Review, and “Early Determination Review”.
## Associate of Applied Science in Occupational Therapy Assistant

### Program of Study (72 credit hours)

Major specific (OTA) courses must be taken sequentially in the order presented.

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Associate in Applied Science in Physical Therapist Assistant

Introduction

The Physical Therapist Assistant Program at the Jefferson College of Health Sciences (Jefferson) is a two-year, five-semester Associate in Applied Science degree program. The blend of classroom, lab, and clinical components is designed to prepare students for careers as Physical Therapist Assistants.

A Physical Therapist Assistant (PTA) is a highly educated and skilled professional who works under the supervision of a Physical Therapist to provide physical therapy interventions. Physical Therapist Assistants work with a wide range of patients in many types of venues including acute care hospitals, skilled nursing facilities, home health, and outpatient clinics. Duties of a PTA may include, but are not limited to, rehabilitation of adult and pediatric patients with orthopedic, neurological, traumatic injuries and various medical-surgical conditions through application of therapeutic exercise, physical agents, functional activities and education. The scope of work of the PTA is dependent upon the state in which the PTA practices.

Program Philosophy and Mission

The Physical Therapist Assistant Program at the Jefferson College of Health Sciences has as its foundation the doctrine that the physical therapy profession is an essential and worthy component of society, particularly that aspect of society that deals with the physical health and well-being of society's members. Jefferson provides a program for the Physical Therapist Assistant student that strives to graduate individuals who are competent, ethical and qualified to assume roles in the healthcare field as Physical Therapist Assistants.

The mission of the Physical Therapist Assistant Program is to provide a curriculum which meets the needs of its students and employers of our graduates in its service area through quality didactic coursework and clinical education experiences that are reflective of contemporary physical therapy practice. The Program is committed to preparing competent, ethical and knowledgeable graduates who are life-long learners.

Program Accreditation

The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), 1111 North Fairfax Street, Alexandria, VA 22314, Phone 703/684-7282, e-mail, accreditation@apta.org, website: http://www.capteonline.org.
Program Outcomes

Graduates of the Physical Therapist Assistant program will be able to

1. begin work as an entry-level Physical Therapist Assistant,
2. display ethical and professional behavior and awareness in patient care
3. collect data on patient through interviews, observations, screenings, and the administration of prescribed tests and assessments within the scope of work of the Physical Therapist Assistant,
4. provide physical therapy services as specified in the plan of care prescribed by the Physical Therapist, including modifying treatment techniques as indicated with the plan of care and within the parameters of state law and the scope of work of the Physical Therapist Assistant,
5. perform in a safe and effective manner within the scope of work of the Physical Therapist Assistant,
6. appropriately interact with patients and families,
7. understand basic principles and levels of authority and responsibility as it relates to functioning as an entry-level Physical Therapist Assistant,
8. appreciate the responsibility for continued personal and professional growth and a desire for life-long learning, and
9. demonstrate appropriate and effective, written, oral and non-verbal communications.

Minimum Performance Standards

Technical Standards: The Physical Therapist Assistant Program has identified technical standards that PTA students are expected to possess. These standards reflect reasonable expectations of the PTA student for the performance of common physical therapy functions and what may be required of a PTA on the job. They are not all inclusive nor do they reflect what may be required for employment as a graduate PTA.

Sensory/Observation Skills: ability to see, hear and feel in order to assess patient condition, provides interventions, and assesses patient response to treatment.

Communication Skills: ability to communicate in English, both orally and in writing. Must have sufficient communication skills (nonverbal, speech, reading and writing) to interact with individuals and communicate effectively.
Motor Skills: must have motor control to be able to lift, carry, adjust and use equipment, perform physical therapy tasks such as patient transfers, provide for patient’s safety, and the physical endurance to work a 40 hour work week.

Intellectual Conceptual Skills: must have the ability to pass courses in a rigorous program, manage time effectively, the ability to concentrate with distractions, demonstrate critical thinking skills and problem solving skills, prioritize, collect, analyze and assess data, perform complex tasks or follow complex instructions.

Behavioral Social Skills: must interact appropriately with all individuals and demonstrate good judgment, maturity, and possess emotional health and stability to cope effectively with the stress of academic demands and clinical situations.

A deficiency in the abilities listed above can severely diminish a student’s chances of success in school and in the profession. The PTA Program faculty will assist a student’s compliance with these technical standards, but the responsibility for meeting the technical standards rests with the student.

If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or patient safety, the institution, or the educational process of the student, including all coursework, and clinical experiences deemed essential for graduation.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Physical Therapist Assistant Program Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

Jefferson Curriculum Requirement: PTA courses (with a PTA prefix) must be taken in the sequence listed. Students must successfully complete the first-year courses before advancing to the second year. The student must achieve a minimum grade of C in the professional courses, as well as meeting prerequisite or corequisite requirements in order to advance to the next semester. Please refer to the course descriptions published in the catalog for co-requisite and prerequisite requirements.
Licensing Information

In the final semester of the PTA Program, students will be provided information and assistance in completing license exam applications. After successfully completing all required coursework in the PTA Program, an Associate in Applied Science degree in Physical Therapist Assisting is awarded. This degree allows the student to sit for the State PTA licensure exam. Each state has its own criteria for granting licensure (some states do not license PTAs). If you plan to obtain a license from other states, you will need to contact that state’s licensing agency.

Each state determines laws, rules and regulations governing the practice of physical therapy. This includes levels of supervision, restrictions on performance of physical therapy interventions and practice settings for the PTA. States also determine their requirements for initial licensure, continued competency and licensure renewal.

Details about the PTA licensing examination and contact information for state licensing agencies can be found on the Federation of State Boards of Physical Therapy website: www.fsbpt.org.
### Associate in Applied Science in Physical Therapist Assistant

#### Program of Study (74 credit hours)

*Classes must be taken sequentially in the order presented.*

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<tr>
<th>PREFIX</th>
<th>COURSE TITLE</th>
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<td>PSY 120</td>
<td>Introductory and Developmental Psychology</td>
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<td>PTA 106/106L</td>
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<td>Psychosocial Aspects of Therapy for the PTA</td>
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Associate in Applied Science in Surgical Technology

Introduction

The Surgical Technology program prepares students to become an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings. The Surgical Technology (ST) Program prepares competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. The ST program builds upon a strong foundation of general education courses. The program provides a balanced approach of theoretical and practical application in the classroom, laboratory, and clinical settings. The clinical environment allows the student to apply theory and practice in state-of-the-art surgical settings. The program provides students with the opportunity to develop the knowledge, skills and behaviors necessary for entry-level employment as surgical technologists, acceptance as a professional, and career advancement.

The surgical technologist’s responsibilities include sterilization of supplies and instruments, as well as helping to prepare the operating room by selecting and opening sterile supplies, assembling, adjusting, and checking non-sterile equipment and specialized equipment such as robotic and laser devices to ensure they are working properly before surgery. During a surgical procedure, the technologist is responsible for assembling, checking and passing sterile instruments and devices into the hands of the surgeon and assisting with the procedure. Other common responsibilities include operating sterilizers, lights, suction equipment, electrosurgical units, endoscopic devices and various other types of equipment.

Program Accreditation

Jefferson College of Health Sciences has degree-granting authority accorded by the State Council of Higher Education in Virginia (SHCEV) and is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS CoC). The Surgical Technology Program has been approved by SACS CoC.

Program Outcomes (Learning Objectives):

Upon program completion, the graduate will be able to:

- Correlate the knowledge of anatomy, physiology, pathophysiology, and microbiology to their role as a Surgical Technologist.
- Demonstrate a safe and professional level of practice and knowledge in their role as a Surgical Technologist.
- Acquire an understanding of the ethical, legal, moral, and medical values related to the patient and the surgical team during the perioperative experience.
• Correlate the elements, actions, and use of medications and anesthetic agents used during the perioperative experience.
• Implement safe practice techniques in regard to perioperative routines, patient transportation, positioning, and emergency procedures.
• Integrate principles of surgical asepsis as part of the perioperative experience.
• Accurately apply knowledge and skills of a professional Surgical Technologist to address the biopsychosocial needs of the surgical patient.
• Perform proficiently and competently as an entry-level Surgical Technologist in the cognitive, psychomotor, and affective learning domains.
• Exhibit accountability for continued personal and professional growth and a desire for life-long learning.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, surgical technology students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. The Minimum Performance Standards for Admission and Progression include:

Essential Mental Abilities:

1. Follow instructions and rules.
2. Maintain reality orientation accompanied by short and long term memory.
3. Apply basic mathematical skills.
4. Demonstrate safe practice within the defined clinical time period.
5. Display gross and fine motor abilities sufficient to provide safe and effective surgical care.
6. Utilize sufficient critical thinking abilities for clinical judgment.

Essential Communication Skills:

1. Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.
2. Effectively utilize interpersonal abilities to interact with diverse individuals, families and groups.
3. Demonstrate communication abilities sufficient for clear interaction with others in verbal and written form.
4. Read and accurately interpret written communications (e.g., test questions, written surgeon’s preference cards, orders, etc.) without assistance.

Essential Physical Abilities:

1. Stand and walk for prolonged periods from one area to another over an eight to twelve hour period.
2. Bend, squat and kneel.
3. Lift and move surgical instrument trays of 25 pounds and move equipment.
4. Assist in lifting or moving clients of all age groups and weights.
5. Perform CPR (e.g., move above patient to compress chest and manually ventilate patient).
7. Use hands for grasping, pushing, pulling and fine manipulation.
8. Demonstrate eye/hand coordination for manipulation of instruments and equipment.
9. Utilize auditory abilities sufficient to accurately hear speech during surgical procedures.
10. Demonstrate visual abilities sufficient for observation necessary for participating in surgical procedures.
11. Display sufficient tactile abilities for safe instrument handling.

**Accommodations**

Any student who may require accommodations should refer to the Jefferson Student Handbook. Students should contact the College’s Disability Coordinator in the Student Affairs Department to coordinate reasonable accommodations and discuss documentation.

**Academic Policies**

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Surgical Technology Program Student Handbook*. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

**To register for the first surgical technology courses** the student must meet the following criteria:

- A cumulative GPA of 2.0 or higher
- Completion of all required prerequisite courses in the program of study.
- A “C” or higher in all required science courses.
- Required science courses must have been completed within the past five (5) years.

Once enrolled in the first surgical technology course, ST students have up to five (5) years to complete degree requirements.

**Program Progression**

The ST program of study is designed in a specific sequence. Earlier surgical technology courses (with a SUR prefix) serve as a foundation for later courses.
and must be taken sequentially. Students must successfully complete the courses in each semester as well as meet prerequisite or corequisite requirements in order to advance to the next semester. Please refer to the course descriptions published in the catalog for corequisite and prerequisite requirements.

Any student admitted to the program must maintain satisfactory progress and be considered in good academic standing to remain in the program. Satisfactory progress requires a minimum of final grade of “Satisfactory” in clinical courses, a “C” in all required science and professional courses (SUR prefix) and a cumulative Grade Point Average (GPA) of at least 2.0.

Clinical Case Requirements

During the Surgical Technology program students will participate in surgical procedures at clinical sites as required by the ARC/STSA.

Core Curriculum 6th Edition, Surgical Rotation Case Requirements

Goal Statement: The goal of the Surgical Rotation Case Requirements is to contribute to the development of a well-rounded, competent, entry-level surgical technologist. As stated in CAAHEP Standard II. Program Goals,

Minimum Expectations: "To prepare competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains."

Objectives:
I. The surgical technology program is required to verify through the surgical rotation documentation the students’ progression in the scrub role in surgical procedures of increased complexity as he/she moves towards entry-level graduate competency.

A. While it is understood that no program is able to control surgical case volume or the availability of various surgical specialties, it is the responsibility of the program to provide students with a diversified surgical rotation experience.

B. No information in this document prevents programs from exceeding the minimum established by the Surgical Rotation Case Requirements.

II. Students must complete a minimum of 120 cases as delineated below.

A. General Surgery cases
   I. Students must complete a minimum of 30 cases in General Surgery; 20 which must be performed in the First Scrub Role. The
remaining 10 cases may be performed in either the First or Second Scrub Role.

B. Specialty cases
   I. Students must complete a minimum of 90 cases in various surgical specialties, excluding General Surgery; 60 which must be performed in the First Scrub Role. The additional 30 cases may be performed in either the First or Second Scrub Role.

   a) A minimum of 60 surgical specialty cases must be performed in the First Scrub Role and distributed amongst a minimum of four surgical specialties.
      1) A minimum of 10 cases in the First Scrub Role must be completed in each of the required minimum of four surgical specialties (40 cases total required).

      2) The additional 20 cases in the First Scrub Role may be distributed amongst any one surgical specialty or multiple surgical specialties.

   b) The remaining 30 surgical specialty cases may be performed in any surgical specialty either in the First or Second Scrub Role.

C. Optional surgical specialties
   1) Diagnostic endoscopy cases and vaginal delivery cases are not mandatory. However, up to 10 diagnostic endoscopic cases and 5 vaginal delivery cases can be counted toward the maximum number of Second Scrub Role cases

      a) Diagnostic endoscopy cases must be documented in the category of "Diagnostic Endoscopy", rather than by specialty.

      b) Vaginal delivery cases must be documented in the category of "Labor & Delivery" rather than in the OB/GYN specialty.

D. Case experience in the Second Scrub Role is not mandatory.

E. Observation cases must be documented, but do not count towards the 120 required cases.

F. Counting cases

   1) Cases will be counted and documented according to surgical specialty (exception being diagnostic endoscopic cases; refer to II. C.1.a. above).
2) Examples of counting cases
   a. Trauma patient requires a splenectomy and repair of a Lefort I fracture. Two cases can be counted and documented since the splenectomy is general surgery specialty and repair of Lefort I is oral-maxillofacial surgical specialty.
   
b. Patient requires a breast biopsy followed by mastectomy. It is one pathology, breast cancer, and the specialty is general surgery; therefore, it is counted and documented as one procedure - one case.
   
c. Endoscopic cases that convert to an open case (e.g.: Laparoscopic Cholecystectomy converted to an Open Cholecystectomy) are counted and documented as one (1) procedure-one case.

**Student Work Policy:**
All student activities associated with the curriculum, especially while students are completing clinical rotations, will be educational in nature. Students will not receive monetary remuneration during this educational experience, nor will the student be substituted for hired staff personnel within the clinical institution in the capacity of a surgical technologist.

Students are permitted to work during times when they are not in classes or clinical assignments. Students are expected to make Surgical Technology courses a top priority during completion of the program.

**Certification**
Graduates of the Surgical Technology Program are prepared to deliver patient-centered care while demonstrating clinical competency, critical thinking skills and caring behaviors within the surgical setting. Graduates will be prepared to meet or exceed the criteria set forth in the current CAAHEP *Standards and Guidelines for the Accreditation of Educational Programs in Surgical Technology* and will be prepared to take the Certified Surgical Technologist (CST)® exam through the National Board of Surgical Technology and Surgical Assisting (NBSTSA).
Associate of Applied Science in Surgical Technology
Program of Study (66 credit hours)

Courses must be taken sequentially in the order presented. * Prerequisite course marked with an * must be completed prior to the first semester.

With approval from the Advisor, other prerequisite courses may be taken at a later time.

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<th>CREDITS</th>
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<td>BIO 211/211L</td>
<td>Anatomy &amp; Physiology I*</td>
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<td>BUS 111</td>
<td>Introduction to Computers</td>
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<td>HLT 215</td>
<td>Medical Terminology*</td>
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<td>IPE 200</td>
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| Semester 1: Spring                                      |         |
| BIO 212/212L | Anatomy & Physiology II                            | 4       |
| SUR 100      | Introduction to Surgical Technology                | 2       |
| SUR 103/103L | Practices of Surgical Technology                   | 7       |
| SUR 108      | Principles of Asepsis                              | 2       |
|         | **Total Credits:**                                | **15**  |

| Semester 2: Summer                                     |         |
| BIO 253/253L | Microbiology                                      | 4       |
| SUR 201      | Surgical Procedures I                             | 3       |
| SUR 111C     | Surgical Practicum I                              | 3       |
|         | **Total Credits:**                                | **10**  |

| Semester 3: Fall                                       |         |
| PHL 115      | Foundations of Ethics                             | 3       |
| SUR 113      | Surgical Pharmacology                             | 2       |
| SUR 210      | Surgical Procedures II                            | 3       |
| SUR 214C     | Surgical Practicum II                             | 6       |
|         | **Total Credits:**                                | **14**  |

| Semester 4: Spring                                     |         |
| PSY 101      | Introduction to Psychology                        | 3       |
| SUR 221      | Surgical Procedures III                           | 3       |
| SUR 215C     | Surgical Practicum III                            | 6       |
| SUR 228      | Surgical Technology Seminar                       | 2       |
|         | **Total Credits:**                                | **14**  |
| Credits from Non-Major Courses:                        | 27      |
| Credits from Major Courses:                            | 39      |
| Total Credits:                                        | **66**  |
Graduate Programs at Jefferson
Graduate Programs

Jefferson College of Health Sciences offers graduate programs in Nursing, Healthcare Administration, Occupational Therapy, and Physician Assistant.

The purpose of graduate education at Jefferson College of Health Sciences is to provide opportunity for advanced study in the healthcare professions. Upon graduation, students will demonstrate fluency in the language of science and inquiry specific to their professional disciplines. Graduates will be prepared to engage in collaborative practice, leadership and scholarship to improve the health of the communities they serve.

The College strives to provide excellence in graduate education in the healthcare disciplines. Upon completion of the requirements for a graduate degree, students will demonstrate a broad knowledge of the literature of their field and the specialized knowledge, skills and critical thinking abilities to practice and contribute to their professions.

The graduate programs emphasize the following as the basis for effective, professional practice:

- leadership
- communication
- technological competency
- interprofessional practice
- information literacy
- evidence-based knowledge and
- ethical practice with respect for diversity
Graduate Admissions

Admission to a graduate program at Jefferson is a competitive process. The candidate must complete the appropriate application process to be considered.

Graduate Admission Process

The application process allows the applicant to manage the collection and submission of all supporting documentation required for application to the graduate programs. In this way, the applicant is assured that the application process is complete (with the exception of test scores).

Each graduate program makes its own admission decisions. Applicants should pay close attention to the requirements for the specific program of interest as specified below. Official transcripts are required. The College reserves the right to deny admission to any applicant when such denial is determined to be in the best interest of the College.

Application Procedure

The graduate application form is available free online at www.jchs.edu. Applicants to the Healthcare Administration, Nursing and Occupational Therapy programs should use this form to begin the graduate application process electronically. There is no application fee when this method is used.

Please submit all required supporting documentation in a single envelope to:

   Office of Graduate Admissions  
   Jefferson College of Health Sciences  
   101 Elm Ave. S.E.  
   Roanoke, VA 24013

Applicants for the Physician Assistant program must apply through the Central Application Service for Physician Assistants (CASPA). Please see the section below, titled "Master of Science in Physician Assistant" for specific information related to this process.

Graduate Admission Requirements

   Master of Healthcare Administration
   • The recommended deadline for priority admission is March 15.
   • Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher.
   • All applicants must have completed a college level statistics course with a grade C or higher prior to or during the first semester of the program.
• Completed recommendation forms from two references.
• A professional resume.
• Students may transfer up to twelve (12) graduate credit hours to the MHA program (Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog)

Applicants are not required to have previous healthcare experience prior to admission, but any student without a minimum of one year of healthcare experience, will be required to take HA 670, a healthcare practicum, prior to graduation.

Master of Science in Nursing: Family Nurse Practitioner
• The recommended deadline for priority admission is November 30.
• Graduate of a nationally accredited BSN or MSN nursing program with a minimum cumulative GPA of 3.0 or higher (based on a 4.0 scale).
• Current unrestricted Registered Nurse Licensure in the state or territory in which the student’s clinical practice will occur.
• A College-level statistics course (3 credits) with a C or higher.
• Recommendation forms from three professional references who can address the applicant’s potential for advanced practice nursing. References should come from recent employers and a former faculty member if possible.
• Curriculum vitae or resume. This document should include education and professional practice.
• Official scores from the Miller Analogies Test or Graduate Record Examination from the last five years if no master’s degree. (School codes: GRE/5099; MAT/2522)
• A two-page essay describing career goals and how a graduate credential will assist in meeting those goals. The writing style (i.e. grammar, punctuation, spelling, word use) and content of the essay will be used in the overall evaluation of the application.
• A minimum of 2,000 documented hours of nursing practice to have occurred no longer than three years prior to beginning the FNP clinical courses.
• Selected applicants will be scheduled for a personal interview.
• Applications received on or before November 30 will be considered first.
• The number of credits a student may transfer will be determined on an individual basis, but will be no greater that 35% of the total program credits. (Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog.)
In compliance with the State Authorization and Reciprocity Agreement (SARA), Jefferson College of Health Sciences cannot confirm whether the program meets the requirements for professional licensure outside of Virginia. For additional information you should contact the state licensing board for the state in which you reside. The following web address provides contact information for each state. https://www.ncsbn.org/47.htm

**Master of Science in Nursing: Nursing Administration**
- The recommended deadline for admission is March 15.
- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher.
- Current unrestricted Registered Nurse Licensure from any state or territory of the United States.
- A College-level statistics course (3 credits) with a C or higher
- Applicants who have earned a bachelor’s degree in a field of study other than nursing must meet the following program course prerequisites.
  - Completion of NSG 490, Contemporary Nursing Issues, with a B or better.
  - Completion of a college-level research course with a C or better.
- Recommendation forms from three professional references who can address the applicant’s potential for advanced practice nursing. References should come from recent employers and a former faculty member if possible.
- Curriculum vitae or resume. This document should include education and professional practice.
- Official scores from the Miller Analagies Test or the Graduate Record Examination from the last five years if no master’s degree. (School codes: GRE/5099; MAT/2522)
- A two-page essay describing career goals and how a graduate credential will assist in meeting those goals. The writing style (i.e. grammar, punctuation, spelling, word use) and content of the essay will be used in the overall evaluation of the application.
- The number of credits a student may transfer will be determined on an individual basis, but will be no greater than 35% of the total program credits. MSN-NA program. (Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog.)

**Master of Science in Occupational Therapy**
- The deadline for admission is December 1.
- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher.
- Completion of the following pre-requisite coursework:
  - 3 credit course in statistics or a research design course.
• 6-8 credits in courses pertaining to anatomical systems such as human anatomy, kinesiology, human physiology, and exercise science.
• 3 credit course in sociology or anthropology.
• 3 credit course in human growth and development throughout the lifespan.
• 3 credit course in abnormal psychology.

- Completion of Recommendation Forms from three references
- Official scores from the Graduate Record Examination from the last five years. Scores should include the standardized writing sample. (GRE- School Code is 5099)
- Completion of a 1000 word essay describing your personal story. Please use APA style, double spaced, Times New Roman 12 point font.
- A minimum of 50 documented hours of observation is preferred using the form available on the OT web page on the Jefferson College website.
- Interviews for admission take place on campus. Applicants who are selected to be interviewed will be scheduled for an interview session several weeks ahead of time. Interview sessions begin in January and run through March.
- Transfer credit is not accepted in the MSOT program.

Master of Science in Physician Assistant
Applicants for the MSPA program must apply through the Central Application Service for Physician Assistants (CASPA). Jefferson does not require a supplemental application. DO NOT send application materials directly to the College or Program. The application deadline is November 1. We have a rolling admissions process, i.e., admission decisions are made and decision letters are sent after each interview session instead of all decisions being made at the end of the season.

Outstanding candidates are accepted within 30 days after the interview, so we highly recommend that you apply early. Interviews for admission take place on campus. Applicants who are selected to be interviewed will be informed of their interview session several weeks ahead of time.

The decision to admit a candidate rests with the admissions committee. Decisions are based on grade point average, prerequisites, healthcare experience, essay, Graduate Record Examination (GRE) scores, references, and the interview.

Application Procedure

- CASPA. Applicants must apply through CASPA, the Central Application Service for Physician Assistants. Jefferson does not require a supplemental application. DO NOT send application
materials directly to the College or Program. Deadline for submission is November 1

- **References.** We recommend three references: one each from an academic advisor, a clinical supervisor and an employer. Substitutions may be made if all three are not available, but at least one reference should be from someone familiar with you in a work or professional setting. Submit these directly to CASPA using CASPA's forms.

- **Essay.** The CASPA application includes a written essay, which will be reviewed by our admissions committee. The essay should be of high quality and demonstrate graduate-level writing.

- **Bachelor Degree.** A bachelor degree from a regionally accredited institution is required. We accept degrees from all disciplines provided you meet the Program’s course prerequisites.

- **GPA.** The minimum overall GPA accepted is 2.8 on all undergraduate work. A GPA of at least 3.0 is recommended. You must have earned a "C" or better on all prerequisite courses. Pass/Fail or placing out of a required prerequisite is not permitted.

- **Advanced Placement Credit.** Credit for AP courses taken in high school, and appearing on a college transcript will be accepted for prerequisite credit. However, we give no advanced placement or prior learning credit to take the place of PA program coursework. Each PA student must complete the entire curriculum at Jefferson.

- **Transcripts.** Send all transcripts to CASPA, not to the College. Students are to send transcripts to the College only after they are accepted and have paid their deposit.

- **Healthcare Experience.** All successful candidates must have 500 hours of healthcare experience, paid, volunteer, or as a student, prior to enrollment in the PA program. This experience should be in areas with direct patient or client contact, for example, EMT, medical technology, nursing, and phlebotomy. Patient contact in fields such as health education, health promotion, and social work may be considered as long as work was in areas of patient or client services. The 500 hours need not be completed by the time of application. Applicants with formal certifications in a health-related field should provide a copy of license or certification upon request.

- **GRE.** The Graduate Record Exam (GRE) is required and should have been taken within the last five years. The minimum GRE score accepted in the old scoring system is 800. We have not yet established a cutoff for the new GRE scoring system. The applicant must arrange to have GRE scores submitted directly to CASPA. Our Designated Institution (DI) Code is 0597.

- **Prerequisite Courses.** Applicants must have completed the following prerequisite coursework before beginning the program. At least 12 hours of this coursework must have been completed within the past three years.
- Anatomy and Physiology I & II with lab: 8 hours
- General Chemistry I & II with lab: 8 hours
- Biochemistry or Cell Biology: 3 hours
- Microbiology with lab: 4 hours
- Genetics or Immunology: 3 hours
- Statistics: 3 hours
- Medical Terminology: 1 hour
- Psychology: 6 hours; at least one upper-level course is required
  (Abnormal Psychology or Developmental Psychology is accepted as an upper-level course)
- Requests for waivers of any of these requirements will be considered on an individual basis, must be made in writing to the program, and must be supported with excellent reasons.

- **Interviews** for admission take place on campus. Applicants who are selected to be interviewed will be scheduled for an interview session several weeks ahead of time. Interview sessions begin in November.

**Graduate Certificate in Biology**

- The recommended deadline for admissions is May 15.
- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher. *Applicants who have earned a bachelor’s degree in a major other than biology must have successfully completed at least 12 credit hours in appropriate biology courses to undertake graduate-level biology courses.*
- Completion of Recommendation Forms from three professional references
- A Professional Resume
- Completion of a Personal Statement explaining the applicant’s interest in the program
- Students may transfer up to six (6) pre-approved graduate credit hours to the program. (*Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog*)

**Graduate Certificate in Healthcare Administration**

- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher
- A Professional Resume demonstrating at least two (2) years of work experience in a healthcare organization

**Graduate Certificate in Healthcare Informatics**

- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher
- A Professional Resume demonstrating at least two (2) years of work experience in a healthcare organization
International Applicants

International students must have their transcripts submitted for independent evaluation of equivalency by an acceptable credentialing evaluation agency. The World Education Service is suggested. Students for whom English is not their primary language are required to submit their Test of English as a Foreign Language (TOEFL) score. The minimum score accepted for admission is 550 for the paper-based test (equivalent requirements are 80 for internet-based and 215 for computer-based tests). We encourage international applicants to have some coursework at an accredited U.S. or Canadian institution. If the student needs an I-20, all other international applicant requirements must also be met. These may be found in the Undergraduate Admissions section of this catalog.

Non-Degree Seeking Students

An applicant who seeks to take up to 12 credits of graduate level coursework at Jefferson College of Health Sciences without applying to a degree program is a non degree-seeking Student. The student must have a minimum of a bachelor's degree from a regionally accredited institution.

Your completed application should include:
- Completion of the graduate application (not required of current Jefferson students).
- Meeting with the program director and instructor responsible for the course(s) wishing to enroll in.

Graduate Finances

Please refer to the finances section of the catalog.
Graduate Information, Policies and Procedures

Academic Advising

A graduate academic adviser is assigned to help the student with the program of study. The advisor should approve all academic plans. It is the student’s responsibility to schedule advising appointments with the advisor as necessary to plan a course of study to complete a graduate program, or to discuss current academic questions and problems.

Academic Honor Code and Personal Integrity

Jefferson College of Health Sciences expects students to exhibit high levels of integrity in all activities. The College reserves the right to deny admission to or remove students from any program if they have a record of misconduct or demonstrate behavior that would jeopardize their professional performance.

Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to: cheating on an assignment or examination; using materials during a quiz or examination other than those specifically permitted by the instructor; stealing, accepting or studying from stolen quizzes or examination materials; plagiarism; forgery of signatures; falsification of official documents; falsification of data; falsification of clinical records; misrepresentation of academic qualifications; misuse of materials which belong to the College; stealing or copying of computer programs and presenting them as one’s own or misrepresenting completion of clinical hours or assignments. Students who violate the Academic Honor Code may receive a failing grade for the assignment or the course. They will not be granted a grade of “W” in the course and may, depending on the nature of the offense, be suspended or dismissed from a program or the College. For additional detail, refer to the Jefferson Student Handbook.

Falsification of official documents or misrepresentation of academic qualifications may result in denial or annulment of admission.

It is the student’s responsibility to know what constitutes academic dishonesty, cheating or plagiarism.

Academic Responsibility

While Jefferson College of Health Sciences makes every effort to advise and counsel students on their academic programs and academic requirements, it is the student who is ultimately responsible for fulfilling all requirements of a degree.
Adding and Dropping Courses

Adding or dropping courses must be completed in accordance with the designated periods on the official College Calendar. Students must confer with their academic advisor if they desire to add or withdraw from a course.

After the Add/Drop deadline, student may withdraw from a class or classes according to the policies and procedures outlined under Withdrawal in this section of the catalog.

Accommodations for Students with Disabilities

Please refer to Services for Students with Disabilities under Student Affairs in this catalog.

Catalog of Entry

In general, a student must fulfill the degree requirements set forth in the Catalog current during the student’s first term enrolled in a graduate program at Jefferson College of Health Sciences. Academic policies amended while a student is enrolled in courses at Jefferson may be deemed to apply regardless of the policies stated in the Catalog at time of entry. The College reserves the right to modify degree requirements from those listed at the time of entry due to curricular exigencies. If students are readmitted, they re-enter under the Catalog in effect at the time of readmission.

Change in Program of Study

Changes in the planned program of study for candidacy must be approved by the academic advisor and program director. Forms for program changes are available in the Registrar’s Office.

Course Load

A full-time graduate academic load is a minimum of nine credit hours per semester.

Credit Hours

The semester credit is the standard unit of credit awarded by Jefferson. To provide students time to travel between courses, one hour equals 50 minutes. One semester credit is equal to 15 hours of instruction. For on-campus laboratory courses, one semester credit is equal to 30 hours of instruction. The semester credit hours awarded for practica, externships, and clinical experiences range from 45 to 55 hours of instruction for each one semester credit, in accordance with professional accrediting agency expectations.
Programs leading to the Master of Science Degree or Master of Healthcare Administration Degree consist of a minimum of 30 semester credit hours.

**Emergency Class Cancellation**

The College will close for weather emergencies, disasters, or incidents based on the decision of the College Administration. Notification of emergency class cancellation is made via the emergency alert system (e2Campus), college website, and main phone number. Students are encouraged to sign up for e2Campus. Students may also listen for cancellation notices on local radio and television stations. Please note that the college has no control over how rapidly or accurately the radio and television stations report closings.

**Grading**

Graduation requirements are based on the quantity and quality of the student’s work. The number of credits is a measure of quantity, with a credit normally representing fifteen hours per semester of course work, thirty hours per semester of lab, and not less than forty-five hours per semester of clinical. The grade is a measure of quality. The College uses the following system for grading graduate courses:

<table>
<thead>
<tr>
<th>Grading Scale</th>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.000</td>
<td>Satisfactory/Passing</td>
</tr>
<tr>
<td>A-</td>
<td>3.700</td>
<td>Satisfactory/Passing</td>
</tr>
<tr>
<td>B+</td>
<td>3.300</td>
<td>Satisfactory/Passing</td>
</tr>
<tr>
<td>B</td>
<td>3.000</td>
<td>Satisfactory/Passing</td>
</tr>
<tr>
<td>B-</td>
<td>2.700</td>
<td>Satisfactory/Passing</td>
</tr>
<tr>
<td>C+</td>
<td>2.300</td>
<td>Marginal*/Passing</td>
</tr>
<tr>
<td>C</td>
<td>2.000</td>
<td>Marginal*/Passing</td>
</tr>
<tr>
<td>C-</td>
<td>1.700</td>
<td>Marginal*/Passing</td>
</tr>
<tr>
<td>D+</td>
<td>1.300</td>
<td>Unsatisfactory/Failing</td>
</tr>
<tr>
<td>D</td>
<td>1.000</td>
<td>Unsatisfactory/Failing</td>
</tr>
<tr>
<td>D-</td>
<td>0.700</td>
<td>Unsatisfactory/Failing</td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td>Unsatisfactory/Failing</td>
</tr>
</tbody>
</table>
Special Grading Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0.000</td>
<td>Course Work Incomplete</td>
</tr>
<tr>
<td>IE</td>
<td>0.000</td>
<td>Incomplete Extended</td>
</tr>
<tr>
<td>NJ</td>
<td>0.000</td>
<td>No Judgment</td>
</tr>
<tr>
<td>P</td>
<td>0.000</td>
<td>Pass</td>
</tr>
<tr>
<td>W</td>
<td>0.000</td>
<td>Student Withdrawal</td>
</tr>
</tbody>
</table>

Although a C may be considered passing for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.

Grade Point Average

The grade point average is used to determine eligibility for admission, progression, and graduation. It is calculated by dividing the total number of quality points by the total number of graded credit hours attempted. Courses with grades or status of “P”, “W”, “I”, “IE”, and “NJ” are not figured in the grade point average. A student’s cumulative grade point average at Jefferson is based solely on academic work at Jefferson and is not affected by course credit earned at another institution.

Pass/Fail

Some graduate classes may be offered on a Pass / Fail. Pass in a graduate course is equivalent to “A” or “B”. A graduate course may not be taken on a Pass / Fail basis unless this grade status is specified in the course description.

Incomplete Status

Only the faculty member may assign a course status of Incomplete “I”. When a faculty member assigns a grade status of “I” in a course for a student, the faculty member must complete the appropriate form in the Registrar’s Office. A status of Incomplete “I” may be assigned if a student is passing the course and has a justifiable reason for not completing the work on time. This status must be changed by midterm of the following semester. Otherwise, the instructor or the Registrar will change the status to an F. No student with a status of “I” may receive a degree. Neither credit hours nor grade points are awarded for a course whose status is “I.”
Incomplete Extended

The time limit for the completion of a grade of Incomplete may be adjusted due to extenuating circumstances. The faculty member and the Registrar must approve the extension of an Incomplete.

No Judgment

The designation of “NJ” indicates satisfactory progress in project courses taken by students in cases where such courses are not completed during a term and when there is need for a grade to indicate that the student has been actively engaged in scholarship. Students may enroll in such courses according to the policies of their degree program.

Grade Reports and Final Grades

Grade reports are issued to students each semester through each student’s Self-Service account. Some courses may issue midterm grades through Self-Service. The mid-term grade report, if course and program appropriate, indicates a student’s progress and serves to identify potential academic problems. Neither midterm nor final grades are mailed to the student.

Graduation

Graduation requirements

Students may receive a graduate degree only after meeting all of their program requirements. A cumulative grade point average of 3.00 or better is required by all programs for completion of a graduate degree.

A minimum of sixty-five (65) percent of the course work required to earn a graduate degree must be taken at Jefferson College of Health Sciences. Transfer courses must be approved by the Program Director and the Registrar.

Application for Graduation

It is the student’s responsibility to be aware of progress toward the degree. Students must file an Application for Graduation form with the Registrar’s Office two semesters before the date of graduation. A program of study, signed by the advisor and program director, must be forwarded to the Registrar.
Commencement Exercises

Ceremonies for all graduates who have completed degree requirements in the previous summer and current fall terms are held in December. Ceremonies for all graduates who have completed degree requirements in the current spring term are held in May of each year.

Students who plan to complete degree requirements at the end of the Summer Semester may participate in the preceding Spring Graduation ceremonies pending completion of degree requirement under the following policy:

1. At the time of Spring Graduation, the student may not have more than 3 credit hours pending.

2. The outstanding credits must be completed by the last day of final exams of the Summer Semester immediately following the Spring graduation in which the student participated. A written plan of completion of these credits must be filed with the Registrar's Office before participation in the Spring ceremony.

3. The student will not be eligible to participate in any other graduation ceremony for conferral of the same degree.

Hooding Ceremony

All graduate students who are eligible for participation in the College commencement ceremony will be eligible to participate in the hooding ceremony.

Interdisciplinary Studies/Interprofessional Education

Jefferson has identified broad-based interdisciplinary learning as a component of its mission, believing that it is essential to improve healthcare outcomes. To accomplish this, elective and required courses in Interdisciplinary Studies (IDS) and Interprofessional Education (IPE) are interwoven with the discipline-specific courses in the curriculum. IDS and IPE courses integrate theory, innovative practice, and technology into classroom, laboratory, and clinical settings. IDS courses provide students from all curricula with knowledge that transcends the boundaries of specific healthcare disciplines. Students in IPE courses engage in interprofessional teamwork around problems specific to the topic of the course.
Master’s Scholarly Project

Some master’s degree programs involve a Master’s project that is a culminating experience, which includes an integrating activity and a comprehensive evaluation of the student’s performance:

1. The integrating activity is intended to help the student synthesize knowledge and skills acquired throughout the degree curriculum. The form of this activity will vary according to the particular discipline and will be specified in the appropriate program handbook.

2. The Master’s Project should demonstrate the ability of the student to select a specific problem or topic, to assemble pertinent data, to do research appropriate to the topic, to organize ideas and data acceptable; to synthesize, analyze and interpret results; and to produce a document in clear and effective English.

3. The student’s performance on the Master’s Scholarly Project may be classified into one of three (3) categories: (1) Pass; (2) No Judgment – the student is provided an opportunity for further study and re-examination by the committee; (3) Fail with no opportunity for re-examination or re-evaluation. The nature of further study and a schedule for re-evaluating the student’s performance will be established by the program faculty.

Minimum Performance Standards for Admission and Progression

In compliance with the Americans with Disabilities Act, students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations by scheduling an appointment with the Coordinator of Services for Students with Disabilities. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or client safety, the institution, or the educational process of the student, including all coursework and clinical experiences deemed essential for graduation. Students should see their program descriptions for program-specific Minimal Performance Standards.

Non-Degree Seeking Policy for Graduate Courses

Non-degree seeking students may enroll in no more than a total of 12 credit hours of graduate level coursework without being formally accepted into a graduate program (see Non-Degree Seeking Students in the Graduate Admissions section). Acceptance in the course requires the consent of both the
instructor of the course and the program director offering the course. Application of these credits to a Jefferson graduate program will be according to the policies of that program.

**Readmission**

Inactive students who were in good standing and who wish to re-enroll should submit a new application and any additional materials requested, including transcripts from all colleges attended since leaving Jefferson College of Health Sciences. Readmitted students adhere to the requirements of the Catalog at the time of re-entry.

**Reinstatement**

Students who have been dismissed for academic or professional reasons from a graduate program at Jefferson are generally not eligible for reinstatement to that program.

**Standards of Satisfactory Academic Progress**

Students are expected to maintain a minimum cumulative GPA of 3.0 for all graduate coursework. Failure to maintain a cumulative GPA of 3.0 will result in academic probation for one semester. Students on academic probation must meet with their financial aid representative to determine how this status impacts their financial aid awards.

Specific policies pertaining to those students who are unable to raise their cumulative GPA to 3.0 at the end of the probation semester and to students whose cumulative GPA falls below for a second time are published in each program’s handbook.

**Student Complaints/Grievances**

Students who believe that they have been treated unfairly with respect to the application of the laws, rules, policies, procedures or regulations under which the College operates or because of race, religion, color, national origin, age, gender, sexual orientation, veteran status or disabilities may file a formal complaint. A complaint/grievance is an internal matter subject to the guidelines located in the Student Handbook, which is published on the College website ([www.jchs.edu](http://www.jchs.edu)) under “Campus Life” and is also available in the Office of Student Affairs, located on the 4th floor of the Carilion Roanoke Community Hospital Building.

**Student Exit Form**

A Student Exit Form must be submitted to the Registrar if a student is graduating, completely withdrawing from the college or requesting a Leave of Absence. The form is available online or in the Registrar's Office. Seniors planning to graduate
must submit the form no sooner than two weeks before the graduation date but no later than the last official day of classes prior to the anticipated graduation. The exiting student must obtain clearance from all departments listed to verify that all obligations to Jefferson College of Health Sciences have been satisfied before the student can be eligible for graduation or have any requests for transcripts honored.

**Students’ Rights of Access to Their Educational Record**

The College complies with the Family Educational Rights and Privacy Act of 1974 (FERPA), as amended (often referred to as the "Buckley Amendment"), which protects the privacy of educational records, establishes students’ rights to inspect their records, provides guidelines for correcting inaccurate or misleading data, and permits students to file complaints with the Family Educational Rights and Privacy Act Office. Portions of this policy were adapted from the recommendations of the American Association of Collegiate Registrars and Admissions Officers (2013), Family Educational Rights and Privacy Act 2013 Guide, Washington, DC.

Educational records are defined as any record maintained by the institution in which a student can be personally identified. Record formats may include handwritten, printed, computer images or data, e-mail, video/photos, audio tapes, and microfilm/microfiche. However, education records do not include private notes maintained by a College official that are not accessible or released to other personnel, law enforcement or campus security records, medical records, employment records, and alumni records.

Students are afforded the following rights with respect to their educational records:

1. The right to inspect and review his/her education records within 45 days of the day the College receives a request for access. Students should submit to the Registrar, Dean for Academic Affairs, Dean for Student Affairs, Department Chair, or Program Director a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place when the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, the official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of his/her education records that the student believes to be inaccurate or misleading. Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record
as requested by the student, the College will notify the student of the decision and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosures without consent. Access to students’ records, except directory information, which may be released, is never granted to individuals from off campus requesting information, unless the student involved has given written permission or as applicable law requires. Directory information is defined as the student’s name, address, phone number, dates of attendance, curriculum, honors, degrees granted, graduation dates, and participation in officially approved activities. Students may restrict access to their directory information by contacting the Registrar’s Office and filing a written request. To minimize the risk of improper disclosure, academic and disciplinary records are kept separate.

Students may authorize disclosure of information to parents or anyone else by completing a Student Permission to Release Information Form available in the Registrar’s Office. This authorization for disclosure may also be revoked by the student through written notification to the Registrar’s Office.

The College may also exercise its discretion to disclose information from the student’s educational records without written authorization from the student under the following circumstances:

a. to federal, state, and local authorities involved in the audit or evaluation of compliance with education programs;
b. to comply with a judicial order or subpoena;
c. in connection with financial aid;
d. to organizations conducting studies for or on behalf of educational institutions;
e. to accrediting organizations;
f. to the parents of a dependent student (special guidelines apply);
g. when a health or safety emergency is apparent;
h. when directory information is being released;
i. to an alleged victim of a crime of violence, the results of a disciplinary hearing may be disclosed; and
j. to school officials who have a legitimate educational interest. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including security personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Directors; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her
tasks. A school official has a legitimate educational interest if the
official needs to review an educational record in order to fulfill his or
her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education
concerning the alleged failures by the College to comply with requirements
of FERPA. The name and address of the office that administers FERPA is
Family Policy Compliance Offices, U.S. Department of Education, 400
Maryland Avenue SW, Washington, D.C. 20202-4605.

Time Limit for Degree Requirement

All course work for the Master’s degree must be completed within seven (7)
years of matriculation. Exceptions to these time limits may be granted following
appeal by the student.

Transfer Credit

The number of transfer credits is determined by each program. The actual
transfer of credit, if permitted by a specific program, is governed by the following
conditions.

Application for the transfer of credit completed at international institutions must
be evaluated by the American Association of Collegiate Registrars and
Admissions Officers (AACRAO) or the World Educational Service (WES) before
submission to the Program Director and the Registrar. Any grade received from
another institution will not be included in the Jefferson College of Health
Sciences grade point average.

Transfer credits are subject to the following conditions:

1. Courses must be comparable to Jefferson College of Health Sciences
course requirements or be acceptable as appropriate for the student’s
program of study. The graduate student must make this request in
writing to the faculty advisor.

2. Courses must have been completed at a regionally accredited
institution within the prior five calendar years.

3. Courses must be fully acceptable and applicable to comparable degree
programs at the offering institutions; however, transfer credit is not
allowed for a course counted within a graduate degree program
completed at another institution.
4. Courses must be reflected on an official transcript that indicates regular disciplinary prefixes, graduate-level course numbers, and titles. An official transcript of the transfer course and a copy of the course description from the appropriate academic years catalog must be submitted with the student's written request to the faculty advisor.

5. Continuing education, professional development, and in-service courses are not transferable unless the course(s) is (are) fully acceptable and applicable to a comparable degree program at the offering institution.

6. Any courses proposed for transfer credit, whether taken before or after admission to Jefferson College of Health Sciences, must have the approval of the program director and registrar.

**Undergraduate Students Enrolling in Graduate Courses**

Senior undergraduate students may enroll in no more than a total of 12 credit hours of graduate level coursework. Acceptance in the course requires the consent of both the instructor of the course and the program director offering the course. Application of these credits to a Jefferson graduate program will be according to the policies of that program.

**Withdrawal**

**Withdrawal from a Course**

The withdrawal period is limited. The deadline for course withdrawal is published each term in the term College Calendar. After the deadline for withdrawal, a student who does not intend to complete a course and wishes to receive a grade status of “W” must apply to the Dean of Academic Affairs for an administrative withdrawal. A student who simply stops attending class during the term will receive a grade of “F” for the course.

**Administrative Withdrawal**

Students wishing to drop a class after the final withdrawal date (the last date to withdraw with a "W") must complete a request for Administrative Withdrawal, which is only authorized by the Dean for Academic Affairs for extenuating circumstances.

The student must submit a request for administrative withdrawal in writing to the Dean for Academic Affairs. The request must be placed on an official form provided by the Dean’s Office. The form may be supplemented by additional documentation.
The request must:

- identify circumstances beyond the student’s control that have occurred after the final drop date (date must be specified) and prevent successful completion of the course. If such circumstances occurred prior to the final drop date, the request must also document the extenuating circumstances leading to a failure to drop the course before the final drop date. Lack of awareness of the final drop date is not considered an extenuating circumstance,

- include documentation verifying all extenuating circumstances,

- indicate the last day of class attendance or online activity in an online course, and

- be accompanied by a letter/e-mail from instructors of all courses involved in the request indicating their recommendation regarding the request.

The Dean will respond within five business days of receipt of the student’s letter and written recommendation from all involved instructors. A written copy of this decision will be sent to the student with copies to the Registrar, course instructors and advisor. The decision of the Dean is final.

Withdrawal from the College

By the Student

A student who wishes to withdraw from the College must notify the office of the Dean for Academic Affairs and complete the appropriate form. The Drop/Add dates for the term apply. A student who simply stops attending classes will receive a grade of “F” for all courses.

By the College

If a student does not register for a course for three consecutive terms, the student will be administratively withdrawn from the College and considered an inactive student. An inactive student must apply to the Admissions Office for readmission, and may resume studies under the Catalog in effect at the time of readmission. The College reserves the right to require at any time the withdrawal of a student whose conduct or academic work is not considered satisfactory.
Leave of Absence

Graduate students may request a leave of absence for a number of terms not to exceed one calendar year. A request for a leave of absence should be sent in writing to the academic advisor of the program. Students who return on the agreed-upon date re-enter the program with the same status held at the time they left. Students who do not obtain a formal leave of absence, or those who do not return in the agreed upon term, shall be considered withdrawn from the College and will have to reapply to gain readmission.
Graduate Program Descriptions
Bioethics Graduate Certificate
The Post-Baccalaureate Certificate in Bioethics is collaboratively offered by Jefferson College and Radford University and is designed for working healthcare and biomedical professionals such as physicians, nurses, social workers, chaplains, patient advocates and representatives, risk managers, hospital administrators, healthcare attorneys, and others. The goal of the program is to provide students with the ethical competency needed for ensuring patient safety, building community trust, and supporting best practices in the expanding fields of healthcare, medicine, and biomedical research.

Biology Graduate Certificate Plan of Study

<table>
<thead>
<tr>
<th>PREFIX</th>
<th>COURSE TITLE</th>
<th>CREDITS</th>
<th>SEMESTER</th>
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<tbody>
<tr>
<td>ETH 510</td>
<td>Advanced Bioethics</td>
<td>3</td>
<td>Fall (Jefferson)</td>
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<td>ETH 520</td>
<td>Bioethics in Organizational Leadership</td>
<td>3</td>
<td>Spring (Jefferson)</td>
</tr>
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<td>ETH 530</td>
<td>Emerging Trends in Bioethics</td>
<td>3</td>
<td>Fall (Radford)</td>
</tr>
<tr>
<td>ETH 540</td>
<td>Cultural Perspectives in Bioethics</td>
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<td>Spring (Radford)</td>
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Biology Graduate Certificate
The graduate biology certificate program is designed for individuals, such as high school science teachers, seeking to obtain graduate credit hours in biology. Achievement of this certificate will provide the individual with preparation in biology that will enhance their ability to teach biology related course work. The curriculum emphasizes molecular and cellular aspects of biological systems, application of quantitation to biological and physiological principles and remaining current through life-long commitment to reading contemporary research publications relevant to these disciplines. The graduate certificate includes 18 semester hours that are taught online and in campus laboratories, using both synchronous and asynchronous methodology.

Biology Graduate Certificate Plan of Study

<table>
<thead>
<tr>
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<tr>
<td>BIO 501</td>
<td>Principles of Cellular Biology</td>
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<td>BIO 515</td>
<td>Comparative Anatomy for Biologists</td>
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<td>BIO 535/535L</td>
<td>Human Anatomy for Biologists</td>
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<td>BIO 545/545L</td>
<td>Microbial Genetics</td>
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<td>BIO 555</td>
<td>Human Physiology</td>
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</table>
Master of Healthcare Administration

Introduction

The MHA program offers an avenue for healthcare professionals who have graduated from an accredited baccalaureate degree program to acquire a master’s degree for career advancement opportunities, as well as for individuals seeking future careers in healthcare.

Today, many healthcare organizations are strongly encouraging their healthcare professionals to obtain a master’s degree. The result is that experienced and entry-level professionals with baccalaureate degrees are searching for a master’s degree completion program that will allow them to complete degree requirements while working part-time or full-time. The Master of Healthcare Administration program is especially designed for adult learners who are working in their professions, while completing the required coursework for the MHA degree.

In keeping with the Mission of Jefferson, the MHA program supports broad-based interdisciplinary learning, personal and professional integrity, commitment to lifelong learning; advancement of knowledge through scholarship; and a holistic development of the individual.

Mission

The mission of the Master of Healthcare Administration (MHA) program is to develop healthcare leaders who will possess the attributes, values and competencies needed to lead healthcare organizations today and into the future.

Program Outcomes

Upon completion of the MHA program, graduates will be able to:

1. Comprehend and analyze a broad range of social, behavioral and environmental factors that influence individual and population health in the United States.
2. Assimilate and integrate acquired knowledge and critical thinking skills in general business management and leadership concepts and practices.
3. Model and apply knowledge and skills to effectively and ethically lead healthcare organizations within complex, competitive, regulatory and legal environments.
4. Synthesize acquired knowledge and skills toward the resolution of practical healthcare leadership issues and problems in an evidenced based practice environment.
5. Formulate and promote effective professional communication, cultural sensitivity and a commitment to acquire the skills to support lifelong learning.
Admission Requirements

The following requirements must be met for admission to the MHA Program:

- Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher.
- All applicants must have completed a college level statistics course with a grade C or higher prior to or during the first semester of the program.
- Completed recommendation forms from two references.
- A professional resume.
- Students may transfer up to twelve (12) graduate credit hours to the MHA program (Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog)
- Applicants are not required to have previous healthcare experience prior to admission, but any student without a minimum of one year of healthcare experience, will be required to take HA 670, a healthcare practicum, prior to graduation.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the MHA Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Course Format

The MHA Program of Study is designed to accommodate the needs of both full and part time adult professionals. Courses are offered as online classes, supported by synchronous and asynchronous technology resources. Full-time students will take three to four courses per semester for a minimum of four semesters. Students may complete the program on a part time basis. Advisors will work with part time students to develop a course plan that allows for systematic completion of the program within the timeframes required by the college.

Synchronous class meetings may be held to support active student learning and are typically scheduled during evening hours. Additionally, IPE 507, an interprofessional educational course, is taken with graduate students from the Master of Science programs in Nursing, Occupational Therapy and Physician Assistant, and medical students from the Virginia Tech Carilion School of Medicine.
Master of Healthcare Administration  
Program of Study (39 – 42 credit hours)

<table>
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<td>Semester 1: Fall</td>
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<tr>
<td>HA 510</td>
<td>Foundations of Healthcare Administration</td>
<td>3</td>
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<tr>
<td>HA 520</td>
<td>Advanced Health Information Systems</td>
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<td>HA 530</td>
<td>Organizational Theories and Leadership</td>
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<td>Semester 2: Spring</td>
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<td>HA 540</td>
<td>Human Resource Administration</td>
<td>3</td>
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<tr>
<td>HA 550</td>
<td>Research Methods and Analysis</td>
<td>3</td>
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<td>HA 560</td>
<td>Advanced Financial Management in Healthcare</td>
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<tr>
<td>Semester 3: Summer</td>
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<tr>
<td>HA 610</td>
<td>Legal Issues Affecting Healthcare Organizations</td>
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<tr>
<td>HA 620</td>
<td>Strategic Healthcare Economics and Policy</td>
<td>3</td>
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<td>HA 630</td>
<td>Seminar in Healthcare Administration</td>
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<tr>
<td>Semester 4: Fall</td>
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<tr>
<td>HA 640</td>
<td>Operations &amp; Performance Management</td>
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<tr>
<td>HA 650</td>
<td>Quality Assessments and Improvement</td>
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<td>HA 660</td>
<td>Strategic Leadership and Marketing</td>
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<td>IPE 507</td>
<td>Ethical and Legal Practice in Healthcare</td>
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Credits from Non-Major Courses: 3  
Credits from Major Courses: 36  
Total Credits: 39  

| HA 670 | Healthcare Administration Practicum (Optional)          | 3       |
|        | **Total HA Credits with Optional Practicum:**           | **42**  |
Healthcare Administration Graduate Certificate

The graduate certificate in Healthcare Administration (HA) is designed to offer core healthcare administration content to healthcare managers and other healthcare professionals. The graduate certificate in HA is taught in a learning environment where students with management and professional experience can supplement their existing practical knowledge with new theoretical knowledge of healthcare organizations, healthcare organizational behavior, healthcare financial management, and related healthcare administration topics. The graduate certificate in HA includes six courses (18 semester hours) which are taught online, using both synchronous and asynchronous methodology.

Admission Requirements:
Applicants applying for the graduate certificate in HA must have graduated with a bachelor’s degree from an accredited college or university and have at least two (2) years of work experience in a healthcare organization. Applicants must provide a current resume during the application process.

The certificate program is designed as part-time plan of study. Students may take one or two courses per semester. Once accepted, students must complete a six-course (18 semester hour) program of study with a 3.0 or better GPA and no grade lower than “C”. In most cases, coursework taken for the graduate certificate with an earned grade of “B” or better can be transferred to the Master of Healthcare Administration degree program if the student is admitted to the MHA program and the courses meet degree requirements.

Healthcare Administration Graduate Certificate
Program of Study (18 credit hours)

<table>
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<th>PREFIX</th>
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<tr>
<td></td>
<td><strong>Semester 1</strong></td>
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<tr>
<td></td>
<td>HA 510   Foundations of Healthcare Administration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HA 530   Organizational Theories and Leadership</td>
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<tr>
<td></td>
<td><strong>Semester 2</strong></td>
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<tr>
<td></td>
<td>HA 560   Advanced Financial Management in Healthcare</td>
<td>3</td>
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<tr>
<td></td>
<td>HA 640   Operations &amp; Performance Management</td>
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<td><strong>Semester 3</strong></td>
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<tr>
<td></td>
<td>HA 630   Seminar in Healthcare Administration</td>
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<td>HA ELE   Healthcare Administration Elective</td>
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<td></td>
<td><strong>Total Major Credits with Elective:</strong></td>
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</tbody>
</table>
Healthcare Informatics Graduate Certificate

The graduate certificate in Healthcare Informatics (HI) is designed to educate healthcare managers, and other professionals interested in a career move, to be effective users and managers of health information. Students will learn how to identify and provide the health information needed by hospital and system executives, governmental planners, public health officials, and other healthcare professionals. Applications of outcome measures provide students with the ability to evaluate the effectiveness of decision making regarding both health and healthcare status. The graduate certificate in HI includes six courses (18 semester hours) which are taught online, using both synchronous and asynchronous methodology.

Admission Requirements:

Applicants applying for the graduate certificate in HI must have graduated with a bachelor’s degree from an accredited college or university and have at least two (2) years of work experience in a healthcare organization. Applicants must provide a current resume during the application process. Students are expected to be proficient in basic computer skills, including use of Microsoft Office Suite.

Requirements for Successful Completion of Certificate Program:

The certificate program is designed as a part time plan of study. Students may take one or two classes per semester. Students must complete the program of study with a 3.0 or better GPA and earn a grade of no less than C in each course. While the grade of C or better will satisfy Certificate requirements, only grades of B or better may be subsequently transferred to the Master of Healthcare Administration program at Jefferson, should the student later seek admission to the MHA program.

Healthcare Informatics Graduate Certificate Program of Study (18 credit hours)

<table>
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<tr>
<th>PREFIX</th>
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<tbody>
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<td>Semester 1</td>
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<tr>
<td>HA 510</td>
<td>Foundations of Healthcare Administration</td>
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<td>HA 520</td>
<td>Advanced Health Information Systems</td>
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<td>Semester 2</td>
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<td>HA 565</td>
<td>Information Systems Life Cycle</td>
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<td>HA Elective</td>
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<td>Semester 3</td>
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<tr>
<td>HA 665</td>
<td>Healthcare Informatics</td>
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## Healthcare Informatics Graduate Certificate

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<tr>
<td>HA 667</td>
<td>Decision Support Systems for Healthcare Organizations</td>
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<td></td>
<td><strong>Total Credits with Elective</strong></td>
<td>18</td>
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</table>
Master of Science in Nursing

Introduction

The purpose of the Master of Science in Nursing (MSN) program is to prepare nurses for leadership roles within healthcare organizations and clinical and academic education; to influence the provision of high quality healthcare; initiate and manage change; and contribute to improving nursing knowledge and practice.

The graduate program is built upon the foundation of baccalaureate education. Graduate nursing education provides an opportunity for professional nurses to develop specialty practice in the area of Nursing Administration or Family Nurse Practitioner to meet the needs of an evolving healthcare delivery system. A common core of knowledge provides a foundation for nurses in both tracks. This core includes the Essentials of Master's Education in Nursing and the Institute of Medicine reports on health professions education.

In the Nursing Administration track, students develop the knowledge and skills needed in an evolving healthcare environment. Students analyze and apply organization and leadership theory, develop expertise in the areas of personnel and financial management, quality improvement, and evidence-based practice. In addition, the student, through didactic and supervised practice, gains the competencies required to implement change within complex healthcare environments using collaborative, interdisciplinary teams.

The Family Nurse Practitioner track is designed to prepare registered nurses to fulfill the role of ethical, knowledgeable, competent, and caring healthcare providers for families in the primary care setting. The focus of the FNP program is to provide the academic knowledge and clinical skills necessary for health promotion, disease prevention, assessment, interprofessional collaboration, and management of common acute and chronic conditions and illnesses.

Nursing Programs Mission

Jefferson Nursing Programs promote excellence in nursing education, practice, scholarship, and service. Through innovative interprofessional practice and education experiences, graduates are empowered to provide leadership in the rapidly changing and culturally diverse healthcare environment. Graduates contribute to the health of all populations as ethical clinicians, educators, researchers, and leaders.
Accreditation

The Master of Science in Nursing program is accredited by the Commission on Collegiate Nursing Education (One DuPont Circle, NW, Suite 530, Washington, DC 20036. Phone: 202-887-6791).

MSN Program Outcomes

Upon completion of the MSN program, the graduate nurse will:

1. Analyze and integrate theories of nursing, education, leadership, and other sciences to guide professional role development and improve nursing practice across diverse settings.

2. Provide organizational and system leadership that emphasizes the importance of professional accountability, ethical decision making, collaborative relationships, and protection of human dignity and diversity.

3. Synthesize and apply the principles, methods, tools, performance measures, and standards related to quality and safety within the healthcare system.

4. Contribute to nursing knowledge by applying current research outcomes within the practice setting: resolving practice problems; working as a change agent; and disseminating results.

5. Integrate patient-care and communication technologies to improve delivery and enhance coordination of care.

6. Analyze the impact of system policies on healthcare, participate in policy development, and use advocacy strategies to influence the quality of health care.

7. Communicate, collaborate, and consult with clients and health professionals to manage and coordinate care as a member and leader of interprofessional teams.

8. Integrate organizational, client-centered, and culturally appropriate concepts in the planning, delivery, management, and evaluation of evidence-based health promotion and population care.
9. Demonstrate and integrate advanced nursing knowledge and relevant sciences into safe advanced nursing practice.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the MSN Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program of Study

The MSN Program of Study is designed to accommodate the needs of both full and part time adult professionals. Non clinical courses are delivered in a primarily on-line format. During the course of the program, precepted experiences will occur at sites arranged in partnership with Jefferson faculty. FNP nursing students will visit the Jefferson campus to learn and participate in skills assessments. These academic visits are called On-Campus Intensives (OCI).

Prerequisite Courses for Nursing Administration Students with Non-Nursing Baccalaureate Degrees

- Completion of NSG 490, Contemporary Nursing Issues, with a B or better.
- Completion of a college level research course with a C or better.
Master of Science in Nursing: Nursing Administration
Program of Study (36 credit hours)

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<td>NSG 549</td>
<td>Organizational Behavior and Theory</td>
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<td>NSG 516</td>
<td>Quality and Safety in Healthcare</td>
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<td>NSG 660</td>
<td>Human Resources</td>
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<td>NSG 502</td>
<td>Healthcare Systems and Policy</td>
<td>3</td>
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<td>NSG 509</td>
<td>Translation of Evidence</td>
<td>3</td>
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<td>NSG 523</td>
<td>Population Diversity</td>
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<td><strong>Semester 3: Fall</strong></td>
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<tr>
<td>IPE 507</td>
<td>Ethical and Legal Practice in Healthcare</td>
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<td>NSG 671C</td>
<td>Administrative Residency</td>
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<td>NSG 605</td>
<td>Collaboration and Interprofessional Leadership</td>
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<td><strong>Semester 4: Spring</strong></td>
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<tr>
<td>NSG 620</td>
<td>Informatics &amp; Data Management</td>
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<td>NSG 655</td>
<td>Financial Management in Healthcare</td>
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<td>NSG 654</td>
<td>Advanced Practice Roles &amp; Leadership</td>
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<td>NSG 696</td>
<td>Integration of Evidence into Advanced Nursing Practice</td>
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Master of Science in Nursing: Family Nurse Practitioner
Program of Study (50 credit hours)

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<tr>
<td>NSG 510</td>
<td>Principles of Primary Care and Family Health</td>
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<td>NSG 516</td>
<td>Quality and Safety in Healthcare</td>
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Master of Science in Occupational Therapy

Introduction

Occupational Therapy (OT) is an allied health profession. Its primary aims are to provide intervention to individuals whose lives have been disrupted by adverse circumstance, assist them in gaining or improving their quality of life, and make them capable, using specific skills required of them, to function effectively within their own dynamic environments. To this end occupational therapists use meaningful / purposeful “occupations” (those tasks and functions of life that require time and energy and which otherwise able-bodied individuals take for granted) to develop or redevelop necessary and/or desired skills for life. These life tasks include, but are not limited to, self-care skills such as bathing, dressing, and toileting; interpersonal communication skills such as carrying on a telephone conversation or speaking with family members or an employer about sensitive issues; everyday living tasks such as the roles of a homemaker, vocational interactions and the roles of employee; paying personal bills, balancing a checkbook, purchasing groceries, driving, planning for the future, enjoying leisure pursuits, etc.

Occupational therapists function in a variety of settings. Graduates may work in a hospital, rehabilitation center, extended care facility, nursing home, public schools, developmental daycare facility, adult day care program, mental health clinic, out-patient facilities, home health agencies, industrial rehabilitation programs, hospice programs, private practice and in various community agencies that aid individuals with specific disabilities.

Program Accreditation

The Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, Maryland, 20824-1220. AOTA’s phone number is (301) 652-2682. Websites: www.aota.org and www.acoteonline.org

Licensing Information

Upon graduation from this program graduates must sit for a national registry exam administered by the National Board for Certification in Occupational Therapy (NBCOT). Their offices are located at 12 S. Summit Avenue, Suite 100, Gaithersburg, Maryland, 20877-4150. NBCOT’s phone number is (301) 990-7979. Website: www.nbcot.org.

All candidates must complete an application for this exam which includes information concerning any previous charges or convictions of a felony, revocation or suspension of a professional license by a regulatory board, or involvement in any disciplinary action due to malpractice, negligence or
misconduct. An affirmative response to any of the above questions may prohibit the candidate’s permission to sit for the exam. Upon entry to this program, if any of the above situations have occurred, the student may contact NBCOT and request an EARLY DETERMINATION where the facts may be presented and the Board will respond stating whether the student would be able to take the test or not.

All Occupational Therapists must be licensed by the Virginia Board of Medicine BEFORE practicing in the state of Virginia. Licensure requirements may be obtained by contacting: The Department of Health Professions, Perimeter Center, 9960 Maryland Drive, Suite 300, Richmond, Virginia 23233.

Program Outcomes

Graduates from the Master of Science in Occupational Therapy program will be able to:

1. apply occupational therapy theories with evidenced-based evaluations and interventions to achieve expected outcomes as related to their client’s participation in their daily lives,

2. demonstrate life-long learning by applying the latest research and professional knowledge that supports the practice of occupational therapy,

3. contribute to the occupational therapy profession through the analysis and application of current occupational therapy theories and other related healthcare knowledge,

4. communicate effectively with other healthcare professionals, agencies, and other members of the healthcare team to foster interdisciplinary collaboration,

5. articulate and model the ethical standards, values, and attitudes of the occupational therapy profession,

6. advocate in various settings for both the services occupational therapy may provide and the recipients of those services, and

7. effectively manage the delivery of occupational therapy services through the coordination and supervision of staff and the prudent utilization of resources.

Minimum Performance Standards

In an average academic day a Student must be able to:

- Sit: 2 - 6 hours
- Attend to tasks: 1 – 2 hours (without a break)
- Walk on level surfaces and/or use stairs
• Provide one’s own transportation to and from assigned fieldwork placements or clinical instruction sites within a 2 hour driving radius of the college. (100-150 miles)

Key: 
- Rarely (R) = 1-10%
- Occasionally (O) = 11 - 33%
- Frequently (F) = 34 - 66%
- Continuously (C) = 67 - 100%

The student is required throughout the 5-semester academic program to:

• Lift less than 10 pounds (F)
• Lift 25 - 50 pounds (R)
• Bend/Stoop (F)
• Climb stairs (F)
• Kneel (R)
• Use hand repetitively (C)
• Firm grasp (O)
• Finger dexterity (manipulation of objects less than 1in.) (F)
• Use auditory/tactile/visual senses to evaluate status of an individual (F)

Physical Demands:

• Lift, boost, turn, or transfer patients weighing up to approximately 300 pounds in and out of bed, car, on and off of mats, wheelchairs, toilet or tub/shower, and average of 15 times per day.

• Frequent (>15 times daily) lifting and carrying of supplies and equipment up to approximately 20 pounds.

• Frequently (>25 times daily) twisting, bending, reaching, stooping, stooping, pushing, and pulling.

• Intermittent sitting, kneeling, half-kneeling, standing, and walking.

• Applying resistance/providing support during exercise and activities of daily living training and independent living skills training.

• Stair ascending and descending up to approximately 10 times daily.

• Visual ability to observe compensatory strategies, functional performance, read medical records, etc.

• Hand dexterity to palpate levels of muscle activity, manipulate treatment tools and supplies, and document fine-motor skills.
Working Conditions:

- Possible exposure to contagious diseases, body fluids, and cleaning materials.
- Patient care environment: hospital, clinic, outpatient setting.
- Office environment: indoors.
- Client’s home.
- Out of doors in all weather conditions if performing home evaluations.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Occupational Therapy Student Handbook*. These handbooks are available electronically on the program’s blackboard site.

Master of Science in Occupational Therapy Program of Study (81 Credits)

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## Master of Science in Occupational Therapy

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**Credits from Major Courses**

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**Total Credits:** 81
Master of Science in Physician Assistant

Introduction

Physician assistants (PAs) are healthcare professionals licensed (or when employed by the federal government, credentialed) to practice medicine with physician supervision. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery, and write prescriptions. Within the physician-PA relationship, physician assistants exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. A PA's practice may also include education, research, and administrative services. PAs increase patient access to primary care, promote cost savings, and improve practice efficiency and productivity.

Mission Statement

The mission of the Jefferson College of Health Sciences Physician Assistant Program is to graduate competent and compassionate physician assistants who are well versed in the art and science of medicine and are prepared to effectively function as members of the healthcare team.

Program Accreditation, Approval and Memberships

The Physician Assistant Program is accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), the recognized accrediting agency that protects the interests of the public and PA profession by defining the standards for PA education and evaluating PA educational programs within the territorial United States to ensure their compliance with those standards.

Program Outcomes

Graduates of the Master of Science in Physician Assistant program will be able to:
1. demonstrate the application of current, evidence-based medical knowledge to provide the most appropriate patient-centered care (Medical Knowledge),
2. communicate effectively with patients, physicians, and other members of the healthcare team to foster interprofessional collaboration (Communication),
3. demonstrate patient-centered care that is effective, timely, efficient, and equitable for the treatment of health problems and promotes wellness across the lifespan, regardless of individual characteristics (Patient Care),
4. model the use of bioethical and legal principles pertaining to the delivery of healthcare (Professionalism),

5. positively impact and advocate for the appropriate provision of healthcare for patients, their families, and communities (Professionalism),

6. exemplify a commitment to personal growth and development as well as growth and development of the physician assistant profession (Professionalism),

7. demonstrate scholarship and commitment to lifelong learning through critical analysis, interpretation, and evaluation of current medical research and literature to enhance the delivery of health care (Practice-Based Learning and Improvement), and

8. demonstrate an ability to provide optimal medical care within a complex medical system (Systems Based Practice).

**Minimum Performance Standards**

In addition to the Academic Standards described in “Program Progression” all students in the Jefferson College of Health Sciences Physician Assistant Program must possess the intellectual ability to learn, integrate, analyze, and synthesize data. They must have functional use of the senses of vision, hearing, equilibrium, and smell, with or without reasonable accommodations. Their exteroceptive (touch, pain, temperature) and proprioceptive (position, pressure, movement, stereognosis, and vibratory) senses must be sufficiently intact to enable them to carry out all activities required for completion of the physician assistant curriculum. These standards for admission establish the expectations and abilities considered essential for students to complete and graduate from our Program. These technical standards will be necessary for successful clinical practice.

The student must possess and be able to demonstrate the following abilities and skills:

1. **Intellectual:** A student must have the mental capacity to assimilate and learn a large amount of complex and technical information; be able to conceptualize and solve clinical problems and to synthesize and apply concepts and detailed information from various disciplines in order to formulate diagnostic and therapeutic plans. Students must be able to learn to read and comprehend technical materials, medication and laboratory reports.

2. **Observation:** The ability to observe well is required for demonstrations and visual presentations, laboratory evidence, and microscopic studies of microorganisms and tissues in normal and pathologic states. A student must be able to observe patients accurately and completely, at a distance and
closely. This requires functional vision and somatic sensation, enhanced by a sense of smell.

3. **Communication:** Student must be able to speak with, hear, and observe patients in order to elicit information, perceive nonverbal communication, and describe changes in mood, activity, and posture. The student must be able to communicate effectively and sensitively in English with patients from different socioeconomic and cultural backgrounds. Students must be able to develop professional rapport, and efficiently and effectively communicate with the health-care team, orally and in writing.

4. **Motor:** Student must have motor function to elicit information from patients by palpation, auscultation, and percussion, and to carry out diagnostic maneuvers. He or she must be able to execute movements required to provide general care and emergency treatment. Such skills require coordination of gross and fine muscular movements, equilibrium, and sensation. Students must have sufficient postural control, neuromuscular control and eye-to-hand coordination to use standard medical/surgical instruments and possess sufficient control of the upper extremities to meet the physical requirements for training and performing a safe physical examination procedure.

5. **Emotional:** Student must have the emotional health to use fully his or her intellectual ability, exercise good judgment, and carry out all responsibilities attendant to the diagnosis and care of patients. The Physician Assistant Program at Jefferson is demanding both intellectually and emotionally. Students must display sufficient emotional health to withstand stress, uncertainties and changing circumstances that characterize the rigors of our Program and the reality of life as a dependent practitioner. Physician assistant students must be able to work cooperatively with other students, staff, faculty, and patients. These qualities will be assessed during the course of study.

6. **Interpersonal:** A student must be able to develop mature, sensitive, and effective relationships with patients and colleagues. The ability to tolerate physical and emotional stress and continue to function effectively is a must. Students must be adaptable, flexible, and able to function in the face of uncertainty during the course of study and with patients. He or she must have integrity, the motivation to serve, a high level of compassion, and a consciousness of social values. Students need the interpersonal skills to interact positively with people from all levels of society, ethnic backgrounds, and beliefs. These skills will be assessed on an ongoing basis during the Program.
Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the PA Program Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

In addition to the “Minimum Performance Standards” listed above, PA students must adhere to the following to remain in good academic standing:

a. Maintain a minimum GPA of 3.0 and make a minimal grade of C minus in all courses.

b. If a student falls below a cumulative GPA of 3.0, they will be placed on Academic Probation. The policy governing Academic Probation for PA students can be found in the PA Student Handbook.

c. PA students are allowed one failing course grade (less than a C minus) during the program. In the event that a failing grade is earned, students will be required to enroll in and successfully pass PHA 575 before the start of the next semester. The student will also be placed on academic probation, and will be required to follow policy governing Academic Probation for PA students, which can be found in the PA Student Handbook.

d. In the event that a student earns a second failing course grade, he/she will be dismissed from the program.

e. PA students will exhibit satisfactory evidence of professional behaviors and interpersonal skills as outlined in the Jefferson Student Handbook and the PA Student Handbook.

f. Earn a passing grade on all proficiency exams (clinical check sheets, Observed Structured Clinical Exams, etc.)

Licensing Information

To be licensed, physician assistants must first complete a course of study approved and accredited by the ARC-PA. The PANCE is the entry-level exam PAs must pass in order to become nationally certified. Prior to PA licensure in Virginia, the physician defines, with approval from the Virginia Board of Medicine, a PA’s scope of practice based on that individual’s competencies, education, experience and the state law. Although licensure regulations and procedures vary by state, physician assistants perform medical tasks delegated to them by the supervising physician.
Master of Science in Physician Assistant
Program of Study (101 credits)

Courses must be taken sequentially in the order presented.

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<tr>
<td>PHA 527</td>
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<td>PHA 551</td>
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<td>Internal Medicine I Clinical Rotation</td>
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<td>PHA 602</td>
<td>Internal Medicine II Clinical Rotation</td>
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<td>Introduction to Masters Project IV</td>
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<td>PHA 609</td>
<td>Psychiatry/Behavioral Medicine Clinical Rotation</td>
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<td>Emergency Medicine Clinical Rotation</td>
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<td>PHA 613</td>
<td>Elective Clinical Rotation II</td>
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<td>PHA 621</td>
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</tbody>
</table>
Jefferson College of Health Sciences is committed to providing student services that support educational programs and the College mission: "to prepare within a scholarly environment, ethical, knowledgeable, competent and caring healthcare professionals." The institution provides a quality educational environment founded on sound standards, policies and accessibility to College programs of study.

The mission of Student Affairs is to facilitate learning and development by providing opportunities for students to achieve their goals, including mastery of knowledge, the ability to think critically, enhancement of interpersonal skills, cultural awareness and a sense of community. Specifically, Student Affairs provides programs and services that:

- Promote students’ increased self-understanding and personal development;
- Increase students’ understanding of their roles and responsibilities to others, to society and to themselves;
- Assist students in overcoming barriers that may prevent them from completing their education;
- Integrate students’ classroom and non-classroom living and learning experiences within the College community;
- Promote student appreciation of human diversity;
- Provide guidance in areas of advising, counseling, and career development.

Student Affairs supports students academically, developmentally and socially through tutoring, counseling, academic support, testing, wellness programming, student activities and Residence Life. Students can make an appointment for any of these services by calling (540) 985-8395.

For more information, please refer to the Jefferson College Student Handbook.

**Residence Life**

The residence hall is located within the newly renovated Patrick Henry Hotel, which is a historic landmark in downtown Roanoke. After the hotel closed, the building underwent extensive renovations and in 2011 was re-opened with luxury apartments for urban living. Students from Jefferson College of Health Sciences reside on the third through sixth floors. Each apartment unit within the Patrick Henry features the following:

- Hardwood Floors
- Granite Countertops
- Full Kitchen Featuring Stainless Steel Appliances, Including a Dishwasher and Garbage Disposal
- Washer and Dryer
The Patrick Henry residence hall is managed by a staff of Resident Advisors and the Coordinator of Residence Life. The Residence Life staff works together to promote community within the residence hall and to uphold College standards and policies.

Students living in the residence hall have the option of participating in a meal plan offered at Carilion Roanoke Community Hospital and Carilion Roanoke Memorial Hospital.

**Student Life**

The College sponsors activities and student organizations as a means to enrich student life and enhance the college experience. These include participation in civic, cultural, social, athletic, and recreational programs. Co-curricular pursuits enable students to better internalize the College mission and values and apply them to personal and professional growth. More information on these activities can be found in the *Student Handbook*.

**Security**

The College and surrounding parking lots are patrolled by Carilion Clinic police officers 24 hours a day. A security officer is on College premises 24 hours a day, seven days a week. Each floor is monitored via closed-circuit security cameras. For students living in the residence hall within the Patrick Henry, there is a Resident Advisor on duty each night of the week beginning at 8pm and ending at 7am the following morning. Resident Advisors may contact Carilion Clinic Police or the Coordinator of Residence Life for assistance as necessary.

**New Student Orientation**

New Student Orientation (NSO) is required for any new student who will be attending Jefferson College for the first time. Available NSO dates, registration instructions, online orientation options, and other information pertaining to NSO are posted on the College website. The New Student Orientation page can be found under the “Student Life” section on the homepage. Additionally, all new students, with the exception of students enrolled in online programs, are required to attend the College Convocation Ceremony and academic program orientations, which are typically scheduled prior to the beginning of fall semester classes. Students who are in fully online programs are not required to attend the Convocation Ceremony.

**Code for Student Conduct**

The College expects students to uphold high standards of ethical behavior, academic excellence, and personal conduct and to embrace the Community Values and Standards found in the *Jefferson College Student Handbook*. 
Students, therefore, will be held accountable for their behaviors and actions. Failure to abide by the Student Code of Conduct or honor code, as set forth in the Jefferson College Student Handbook will result in sanctions appropriate to the violation.

**Counseling Services**

Counseling and Wellness is a department within the Division of Student Affairs. Counseling is a free and confidential service, provided for Jefferson students, that seeks to assist in the development and maintenance of students’ academic and personal growth. While students are expected to accept the responsibility for making their own decisions, counselors are available to assist them in making necessary adjustments for improving academic skills, learning to better communicate, strengthening relationships, and solving problems that interfere with learning. Counseling can often provide assistance in dealing with loneliness, anxiety, frustrations and depression associated with the college experience.

Professional counselors and graduate students enrolled in master’s degree counseling programs provide services at the College. Confidentiality is strictly maintained for all personal information shared in counseling.

Specific services include:

- Individual counseling
- Academic skills development
- Career counseling and testing
- Assistance with disability accommodations
- Referral for educational testing for learning disabilities
- Crisis intervention

**Eligibility for Services**

All College students are eligible for Counseling Services.

**Limits of Service**

Counselors provide primarily short-term or brief therapy. If more intensive care, certain specializations or hospitalization services are needed, the staff can assist in making referrals to outside mental health providers.

**Appointments**

Initial, non-emergency appointments are usually scheduled within one week of the request. Appointments are generally made between normal business hours.
To make an initial appointment, stop by the Student Affairs Suite on the 4th floor of Community Hospital or call (540) 985-8395. In the event of an after-hours emergency, please call RESPOND 776-1100 or CONNECT 981-8181.

**Confidentiality**

Communication with Counseling and Wellness is confidential. Contact made with the Counseling Department and information resulting from individual sessions does not become a part of one’s student record in the Registrar’s Office.

No counseling information can be released without the written permission of the client. The exceptions to confidentiality, as mandated by state law, include: when the information relates to clear and imminent danger to an individual; when there is reason to believe that a child or vulnerable adult has been, or is likely to be, abused or neglected; or when the information is requested by a valid court order. Any disclosure in these situations will be made to an appropriate authority and will be limited to material directly related to the issue involved.

It is important to note that College counselors are allowed to discuss academic information with appropriate College faculty and staff according to FERPA regulations. No other, non-academic information will be released without the student’s written consent.

**PASS (Pathways to Academic Success)**

The PASS Program is designed to help students who may need some assistance in meeting college requirements or academic goals due to academic difficulties or for students who desire to improve their study and test-taking skills. Referral can occur before (through the Alternate Admissions Program) or after admission to Jefferson College. Faculty, advisors, program directors, or any Jefferson staff member can refer a student to PASS. Students who feel they would benefit from the program are also strongly encouraged to come to PASS on their own. After referral, PASS students meet with a counselor for an assessment and decide on mutually agreed upon goals and methods to achieve them. Students can expect to get suggestions on ways to improve their skills in the first meeting. The counselor and the student decide at the conclusion of the first meeting if follow-up meetings are needed. Resources for PASS students include, but are not limited to, academic counseling to improve study skills, test taking skills, time management and organization, personal counseling, regular meetings with advisors and tutoring. For more information on the PASS program or to set up an appointment, log into Starfish and click on the success network link or contact the Director of Academic Support Services located in the Student Affairs Suite, Fourth Floor, CRCH.
Learning and Writing Center (LWC)

The Learning and Writing Center (LWC) provides tutoring and writing assistance for students who want additional academic support. Tutoring is provided by trained peer tutors on a one-on-one or small group basis. Writing assistance is provided by the LWC staff in person, through email, or online through Blackboard Collaborate. Appointments for tutoring and/or writing assistance should be scheduled online through Starfish. During an appointment, LWC staff will provide suggestions and guidance to help students improve their academic performance and skills. Students will meet tutors in the LWC, which is located in the Learning Commons on the 5th floor (room 507), in the designated tutoring room in Student Affairs (room 420), or provide online tutoring through Blackboard Collaborate. If a student needs help with tutoring and/or writing assistance, they should contact the LWC Coordinator.

Services for Students with Disabilities

The College is committed to serving students with disabilities by providing appropriate accommodations in compliance with federal and state regulations. Under College policy and federal and state laws, qualified people with disabilities are entitled to reasonable accommodations that will allow them access to College programs, jobs, services, and activities, unless the accommodations would pose an undue hardship on the College. An individual is considered to have a "disability" if she/he has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment that substantially limits a major life activity (such as learning, caring for oneself, seeing, breathing, walking or working). A qualified person with a disability is someone whose experience, education, and training enable the person to perform the fundamental job duties and/or meet essential course and program requirements, with or without a reasonable accommodation. An accommodation is any change in the work or learning environment, or in the way things are customarily done, that enables a person with a disability to have equal employment or educational opportunities.

Jefferson is equipped to provide needed accommodations for most programs. Jefferson has designated the Coordinator for Disability Services, in Room 506 (across from the Learning and Writing center) as the person who coordinates services for students with disabilities. Students with disabilities who desire accommodations must schedule a meeting with the Coordinator for Disability Services to discuss program accessibility and individual needs. Reasonable accommodations will be made when requested and supported by appropriate documentation. For more information, request a guide for students with disabilities by calling Katie Winters at (540) 985-8215 or emailing her at krwinters@jchs.edu.

A request for accommodation is deemed reasonable if it:
1. is based on individual documentation;
2. allows the most integrated experience possible;
3. does not compromise essential requirements of a course or program;
4. does not pose a threat to personal or public safety;
5. does not impose undue financial or administrative burden on the College; and
6. is not of a personal nature (i.e. hiring of personal care attendants).

It is the student’s responsibility in the accommodation process to do the following:

- Declare a disability. Students may voluntarily contact the Coordinator for Disability Services to declare a disability prior to the completion of the admissions process for the purpose of providing information concerning their disability;
- Or the Admissions acceptance packet provides an opportunity for students with disabilities to declare. Responses are addressed directly to the Coordinator for Disability Services, kept confidential, and used only to assist in planning reasonable accommodations;
- Contact the Coordinator for Disability Services for formal disclosure at any time during his enrollment. The point in time at which a student chooses to identify a disability remains at the student’s discretion. However, the College is not responsible for making retroactive accommodations;
- Provide, at the student’s expense, current appropriate documentation of the disability from a medical or other licensed professional qualified to diagnose the disabling condition;
- Examples of valid documentation of a disability would be as follows:
  o Individualized Education Plan with diagnoses of the disability
  o Psychological assessment performed by a doctor and diagnoses of the disability
  o Letter or other documentation from a Primary Care Physician informing of disability and restrictions

**Student Discrimination Complaint Procedure**

Under 34 C.F.R. § 104.7(b) the College is required to adopt a grievance procedure providing for the prompt and equitable resolution of complaints alleging noncompliance with Section 504 or its implementing regulations that incorporate appropriate due process standards. Jefferson College of Health Sciences has a complaint procedure to deal promptly and fairly with concerns
and complaints about discrimination based on disability as well as other areas of discrimination. The procedure may be used by any student who believes that he or she has been discriminated against or harassed based on race, color, religion, sex, sexual orientation, national origin or citizenship status, age, disability, or veteran’s status.

Anyone may bring forward information or a concern about discrimination or harassment. Complaints are handled as confidentially as possible to protect the rights of both the complainant and the person accused. Retaliation against anyone who makes a complaint or participates in a complaint process will not be tolerated.

**Disability Grievance Procedure**

All Section 504 complaints, excluding those filed against the Section 504 Coordinator, should be addressed to:

Coordinator for Disability Services, Fifth Floor CRCH, Office #506

Jefferson College of Health Sciences
101 Elm Avenue S. E.
Roanoke, VA 24013

All complaints filed against the Coordinator for Disability Services should be addressed to:

Dean for Student Affairs, Student Affairs Suite, Fourth Floor CRCH
Jefferson College of Health Sciences
101 Elm Avenue S. E.
Roanoke, VA 24013

Complaints must be filed in writing within 180 days after the complainant becomes aware of the alleged violation. It must contain the name and address of the person(s) filing the complaint and a description of the alleged violation.

An investigation, as may be appropriate, shall follow the filing of the complaint. The Coordinator for Disability Services or the Office of the Dean for Student Affairs, depending upon the nature of the grievance, shall conduct the investigation. All interested persons and their representatives will have an opportunity to submit evidence relevant to the complaint.

Either the Coordinator for Disability Services or the Dean for Student Affairs will issue a written determination as to the validity of the complaint and a description of the resolution. A copy will be forwarded to the complainant no later than thirty (30) working days after receipt of the complaint.

Upon receipt of the decision of the Coordinator for Disability Services, if the
student is not satisfied, he/she may file an appeal to the Dean for Student Affairs. The Office of the Dean must receive the appeal no later than thirty (30) working days after the date of the written determination by the Section 504 Coordinator. The Office of the Dean for Student Affairs, as may be appropriate, shall conduct an investigation and the Dean shall issue a written determination as to the validity of the complaint and a description of the resolution. A copy will be forwarded to the complainant no later than thirty (30) working days after receipt of the complaint.

If the student wishes to appeal a decision of the Dean for Student Affairs, he/she may file an appeal to the President of the College. The Office of the President must receive the appeal no later than thirty (30) working days after the date of the written determination by the Dean. The Office of the President, as may be appropriate, shall conduct an investigation and the President shall issue a written determination as to the validity of the complaint and a description of the resolution. A copy will be forwarded to the complainant no later than thirty (30) working days after receipt of the complaint. The decision of the President is final.

OR

The student may file a complaint with the Office of Civil Rights by accessing the complaint form and instructions at: http://www.ed.gov/offices/OCR/complaintintro.html.

Or, by writing to:

Washington DC (Metro)
Office for Civil Rights
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202-1475

Telephone: 202-453-6020
FAX: 202-453-6021; TDD: 877-521-2172

E-mail: OCR.DC@ed.gov

OR

The student may initiate legal proceedings through the attorney of his/her choosing.

Educational Testing Center

The Educational Testing Center (ETC) is a 25 station computer lab located in room 509 on the 5th floor. The ETC provides test proctoring services for all Jefferson College students.
**Student Technology Use Policies**

These policies ensure that all students have access to important technology resources and electronically delivered communication. Jefferson College of Health Sciences reserves the right to limit, restrict, or extend computing privileges and access to its technology resources. All college technology resources are to be used in a responsible, efficient, ethical, and legal manner. Failure to adhere to these policies may result in suspension or revocation of access and/or accounts. These policies are published in the *Jefferson College Student Handbook*, which is posted on the college website ([www.jchs.edu](http://www.jchs.edu)) under the “Student Life” tab. Questions or comments about these policies should be directed to the Dean for Student Affairs.

**Technology Account Policy**

The College Admissions Office sends an email to applicants providing them information on how to create their Jefferson Self-Service account (student information and registration system). Once the student deposits into a program, an email is sent from Jefferson College Admissions which provides them with information regarding their email and Blackboard (Learning Management System) accounts. Students are expected to utilize all three systems during their enrollment at Jefferson and are responsible for content and information provided through these systems.

**College Owned Computers and Computer Labs**

Computers in the student computer labs are available to current Jefferson College of Health Sciences students. Students may be asked to show an ID when using the labs to verify their status as a student. Students must use headphones when utilizing software with audio components. Food and drink are not permitted in any of the computer labs. Children are not permitted in any of computer labs.

All lab computers have connections to the College’s computer network. This network provides access to the Internet. This service is provided free of charge to all current students. While on campus, student personal computers can only be connected to the public wifi or student wireless network. Students utilizing the network from residence halls should refer to the policy Technology Support for Students Living in Residence Halls for additional information.

Use of computers and network resources is a privilege, not a right. Appropriate use of Jefferson computers and network resources means 1) respecting the rights of other computer users; 2) protecting the integrity of the physical and
software facilities; 3) complying with all pertinent license and contractual agreements; and 4) obeying all Jefferson policies, state, and federal laws.

Examples of misuse of Jefferson computers and network resources include but are not limited to:

a. Duplicating or using copyrighted materials without appropriate licenses and/or permission.

b. Copying, renaming, altering, examining, or deleting the files, programs, or work of another person or Jefferson without permission.

c. Attempting to disrupt services of the computing and network systems, including the knowing propagation of computer viruses.

d. Moving, reconfiguring, or tampering with equipment or engaging in activity of any kind that could disrupt services or damage computers or printers.

e. Utilizing the computers or network for commercial purposes.

f. Attempting to bypass the print-card system on Jefferson printers.

g. Knowingly transferring or allowing to be transferred to, from, or within the College’s network, textual or graphical material commonly considered to be pornography or obscene.

Misuse of computers or network resources may result in disciplinary action and may also result in criminal prosecution.

**Electronic Communications Policy**

Electronic mail or "e-mail" is considered an official method for communication at Jefferson because it delivers information in a convenient, timely, cost effective, and environmentally-aware manner. The policies discussed in this section also apply to e-mail systems used in Blackboard and Starfish. Included with each e-mail account is a virtual storage space, ability to send and receive instant messages, and other electronic communications areas. All of these policies apply to any usage of this account not just the e-mail feature. This account is set up to provide communications related to your academic and student life here at Jefferson. Other uses of this account should be limited.

**Expectations Regarding Student Use of Electronic Communications**

Students are expected to check their official Jefferson e-mail on a frequent and consistent basis in order to remain informed of college-related communications. The College recommends checking e-mail daily. Students are responsible for any consequences of not reading their mail in a timely manner.
Jefferson offices cannot validate that a communication coming by e-mail is from a student unless it comes from a valid Jefferson e-mail address. If students contact administrative offices or faculty from outside e-mail accounts (Hotmail, AOL, etc.), they may be asked to resubmit their query using an official Jefferson account.

**Faculty Expectations and Educational Uses of E-mail**

Faculty members may require e-mail for course content delivery, class discussion, class communication, and instructor conferencing and may specify course-related e-mail policies in their syllabi.

**Appropriate Use of Student Electronic Communications**

All use of electronic communications will be consistent with other college policies and local, state, and federal law; the Family Educational Rights and Privacy Act of 1974 (FERPA); and all applicable contracts and licenses.

**Privacy of Electronic Communications**

Privacy of electronic communication is not guaranteed. Authorized Jefferson personnel may monitor e-mail system usage for purposes of planning and managing resources, evaluating system performance, troubleshooting purposes, or investigating suspected abuse.

Students should also be aware that communication via blogs or social networking sites are not private communication and they can be held libel for their actions both under College policies and applicable local, state, and federal laws. Threats, slander, and other inappropriate comments or actions made on social networking sites against the College, its faculty and staff, and other students may be addressed through the College’s student judicial process. Students should also take care not to present personal opinions and feelings as if endorsed by the College.

**Misuse of Electronic Communications Systems**

Examples of misuse of Jefferson-provided electronic communications systems include, but are not limited to:

- Circulating chain letters;
- Using college e-mail systems for: "for-profit" activities; "non-profit" or public, professional, or service organization activities unrelated to Jefferson;
- Large-scale distributions of unsolicited e-mail (sometimes called "spam").
Student Affairs

- Sending fraudulent e-mail, breaking into another user’s e-mail account, or reading someone else’s e-mail without his or her permission;
- Disclosing proprietary information, without permission of the owner; and
- Knowingly transferring or allowing to be transferred to, from, or within the College’s e-mail system, textual or graphical material commonly considered to be pornography or obscene. Misuse of the College electronic communications system may result in disciplinary action and/or criminal prosecution.

Students Living In Residence Halls

Students living at the Patrick Henry, may choose at their own risk to connect a router or other devices to the high speed Ethernet connection provided. Students are responsible for all activity that takes place from their IP address and cable television connection. They are expected to follow all local, state, and federal laws including copyright laws. Downloading of any copyrighted materials on the College network is strictly prohibited and may result in judicial sanctions and/or criminal prosecution. The College will not shield students from the consequences of their actions if outside agencies seek prosecution or sanctions for illegally downloaded material.

All students are responsible for having up-to-date virus protection on any devices connected via the residence hall. Failure to do so may result in disconnection from the internet.

Violations of any of the technology and related policies may result in loss of the connections and other disciplinary action and/or criminal prosecution.

Students should report any trouble issues with their connection to their Resident Advisor.
Financing Your College Education
Finances

The Bursar's Office

CRCH, 4th Floor
Phone: (540) 985-8272
Fax: (540) 855-3585
Hours: 8:30 a.m. to 4:30 p.m. Monday-Friday

Meet the Staff

Tonia Andrews
Bursar
Phone: (540) 224-4508
E-mail: tyandrews@jchs.edu

Jackie Kinsey
Associate Bursar
Phone: (540) 985-9784
Email: jkinsey@jchs.edu

Chyrel Gregorieff
Business Office Assistant
Phone: (540) 985-8272
E-mail: csgregorieff@jchs.edu

2015-2016 Tuition Chart

Undergraduate Programs - Full Time $24,000 Fall and Spring
(Does not include summer
session), plus fees

Undergraduate Programs - Part Time $695 per credit hour, plus fees

Graduate Program $750 per credit hour, plus fees

The above tuition and fees are subject to annual review and may change
from year to year. In the event that tuition and fees do change, students will
be notified accordingly and the new tuition rates will be published in the
catalog or addendum.

Tuition or admission cost for any program, other than a degree program, (i.e. a
Continuing Education program) will be determined by that program at the time it
is offered.
### 2015-2016 Fees and Incidentals Chart

<table>
<thead>
<tr>
<th>Fee Type</th>
<th>Fee Details</th>
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<tbody>
<tr>
<td>Application fee (paper copy)</td>
<td>$35 (non-refundable)</td>
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<tr>
<td>Technology Fee full-time</td>
<td>$200 per semester (no Summer fee)</td>
</tr>
<tr>
<td>Technology Fee part-time</td>
<td>$200 per semester (no Summer fee)</td>
</tr>
<tr>
<td>Deposit Fee (PA, OT)</td>
<td>$500 (non-refundable)</td>
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<tr>
<td><strong>The deposit fee serves as confirmation of the student's intent to enroll and is applied to the cost of attendance upon enrollment.</strong></td>
<td></td>
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<tr>
<td>Deposit Fee - All Other Programs</td>
<td>$200 (non-refundable)</td>
</tr>
<tr>
<td><strong>The deposit fee serves as confirmation of the student's intent to enroll and is applied to the cost of attendance upon enrollment.</strong></td>
<td></td>
</tr>
<tr>
<td>Audit Fee</td>
<td>$100 per credit hour</td>
</tr>
<tr>
<td>Laboratory/Clinical/Externship Fees</td>
<td>$60 per class, per semester, part-time students</td>
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<tr>
<td>Background Check Fee</td>
<td>$60</td>
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<tr>
<td><strong>(Required by Aug. 11, for all incoming fall students who will have clinicals)</strong></td>
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<tr>
<td>Residence Hall Fee:</td>
<td>$2,935 per semester (Fall and Spring)</td>
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<tr>
<td>Residence Hall Fee:</td>
<td>$1,500 (Summer)</td>
</tr>
<tr>
<td>Meal Plan:</td>
<td>Meals are optional and can be added to the student’s ID card in $100 increments. Unspent dollars are carried over from fall to spring semesters. Any remaining balance at the end of spring is forfeited. See the Student Affairs or Bursar’s Office for further detail.</td>
</tr>
<tr>
<td>Late Payment Fee:</td>
<td>$50</td>
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<tr>
<td>Diploma Replacement Fee:</td>
<td>$60 (non-refundable)</td>
</tr>
<tr>
<td>Challenge Exams:</td>
<td>$10 for General Education Challenge exams, plus $100 per credit if the student passes the exam</td>
</tr>
<tr>
<td></td>
<td>$50 for Nursing Challenge Exams, plus $100 per credit if the student passes the exam</td>
</tr>
</tbody>
</table>
Billing Procedure

Each student can view their invoice on their Self-Service account which lists the charges for each semester.

1. Payment of College expenses is the responsibility of the student. All charges are due on the date stated on the invoice. All tuition, fees and residence hall charges must be paid prior to class attendance.
   
a. The student must clear his or her account by the due date stated on the invoice in order to maintain valid registration.

b. Students receiving financial aid will receive an award letter from the Office of Financial Aid. If charges exceed the financial aid award, payment is expected prior to the due date stated on the invoice. If the financial aid award exceeds the charges, the student will receive a refund for the excess amount.

Refunds, which are processed 30 to 45 days after the start of the semester, can be picked up in the Bursar’s office.

Payments and Payment Plan

Make checks and money orders payable to: Jefferson College of Health Sciences. We also accept cash, checks, Visa, MasterCard, Discover, and American Express.

Payments should be mailed to:

Jefferson College of Health Sciences
Attn: Bursar’s Office
101 Elm Ave. S.E.
Roanoke, VA 24013

All tuition, fees and residence hall charges must be paid prior to class attendance. Students receiving financial aid must pay any balance that exceeds their anticipated financial aid award. Late financial aid applicants are required to pay tuition and fees upon registration.

A tuition payment option is available to Jefferson College of Health Sciences students. This plan is administered through Higher One.

The Higher One tuition pay plan enables students to pay all or part of their expenses in five or nine equal monthly installments without interest. The only cost to the student is a $60 per plan enrollment fee. You can enroll on their

**Returned Checks**

A returned check fee in the amount of $25 will be added to the student account along with the amount of the returned check.

**Tuition Refund Policy**

A statutory schedule based upon the percentage of the semester completed before the withdrawal date is used to determine the amount of tuition and fees that will be refunded if a student withdraws from class. If a student withdraws after 60% of the semester has passed, no refund will be given.

The percentage of semester completed is calculated using the total number of calendar days in the semester divided into the number of calendar days completed in that semester, as of the day the student withdraws.

**Refund and Repayment Policies and Procedures**

Refund and repayment policies and procedures for financial aid recipients are consistent with requirements specified by federal guidelines and regulations. The following information outlines how refunds and repayments of financial aid monies will be assessed for students who completely withdraw, drop out, take an unapproved leave of absence, are expelled from classes or otherwise fail to complete the period of enrollment for which they were charged after receiving financial aid disbursements for a semester.

Terms used in the “Refund/Repayment Policies” are defined as:

**Refund** – The amount of money credited to a student’s account, which the school is not entitled to keep based on the length of time the student attended classes. The refund amount is defined as the difference between the amount paid towards school charges (including financial aid and/or cash) and the amount the school can retain under the appropriate refund policy.

**Repayment** – The amount of cash disbursements given to a student for a semester to cover off-campus room, board, transportation, books, supplies, child care, and miscellaneous personal expenses which the student is not entitled to keep based on class attendance prior to withdrawal.

**Information**

A 1098-T will be mailed to students in January. The 1098-T informs the student of the possibility of a tax credit. The amount of eligible charges, along with scholarships and grants are provided on each 1098-T. It is the student's responsibility to determine eligibility for the tax credit.
Refunds for Residence Hall Rooms

Residence Life Contracts are binding for the entire academic year. There are a limited number of reasons that a student may be released from the responsibility of paying for both the fall and spring semesters once a contract has been submitted:

- Graduation from the College
- Marriage
- Withdrawal from the College for a reason other than an honor violation or potential expulsion

Those interested in living in the Patrick Henry should review the Residence Life Contract thoroughly before signing in order to understand all terms and conditions listed therein. The Residence Life Contract is the document that will take precedence in any situation that arises in which clarification of the refund policy for residence hall rooms is sought.

Financial Aid

The Financial Aid office at Jefferson is here to provide financial access for students to attend Jefferson College of Health Sciences. Our objective is to use all financial resources available to help students and their families realize their educational and career goals. It is our commitment to make the financial aid application process easy to understand and easy to obtain for families who are eligible.

Financial Aid is available from state and federal agencies, civic organizations, health agencies, foundations and institutional aid sources. Specific policies and/or laws regulate each program. A financial aid “package” is created for the student based upon their level of eligibility for these programs. This package includes aid from various sources (depending on the availability of funds) and will not exceed the amount of the student's direct cost. In most aid packages, the assistance offered covers only a portion of the total cost of education.

You are responsible for completing your aid applications by the published deadline and for asking questions when information is unclear. Each student applying for aid should complete the Free Application for Federal Student Aid (FAFSA). We encourage students and their families to complete this application at the beginning of each year as soon as their Federal Income Tax Return has been filed. The application can be filed electronically at www.fafsa.ed.gov.

Please call our office with any questions that you may have regarding Financial Aid assistance at Jefferson.
Staff Contact and Office Information

Location: 4th Floor of the Carilion Roanoke Community Hospital (across from the Bursar’s Office) Office Hours: 8 a.m. to 4:30 p.m., Monday through Friday
Address: 101 Elm Avenue, SE
Roanoke, VA 24013
E-mail: financialaid@jchs.edu
Phone: (540) 985-8267
Fax: (540) 224-6916

Staff:
- Debra Johnson, Director of Financial Aid
- Nathan Habecker, Assistant Director of Financial Aid
- David Bachelder, Financial Aid Representative

Our School Code

The Jefferson College of Health Sciences school code is 009893.

Completing the Financial Aid Steps

The Financial Aid Process:

Step 1:
Obtain your Personal Identification Number (PIN) and file the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov. The Jefferson College of Health Sciences’ federal school code for the FAFSA is 009893.

Step 2:
Apply for additional sources of Financial Aid. Things like the Virginia Tuition Assistance Grant (VTAG) (http://www.schev.edu/forms/TAGApplication1314.pdf), Institutional Scholarships (http://www.jchs.edu/page.php/prmlID/891), Outside Scholarships, and the Federal Work Study program are just some of the additional student funding opportunities available.

Step 3:
Review and apply for Federal Direct Loans as needed. There are several types of student loans made available by the Department of Education Direct Lending program. To begin the process, visit www.studentloans.gov and complete a Master Promissory Note (MPN) and Entrance Counseling. The Jefferson College of Health Sciences’ federal school code for Direct Loans is 00662200.
Step 4: 
Complete any outstanding requirements for your Financial Aid package. 
Check your e-mail or self-service account for information regarding additional requirements for your Financial Aid. Some students must provide additional information for the FAFSA Verification process, VTAG applications, or to resolve issues with the student’s FAFSA. You will be contacted by the Financial Aid Office if any of these apply to you.

Helpful Hints:

- If you are receiving Veteran’s Benefits, please contact the Financial Aid Office to fill out the appropriate paperwork.
- If you are interested in a Federal Work Study (FWS) position, contact the College Human Resources Representative Office (Administration) and then fill out the FWS Application at http://chsweb.carilion.com
- If you want anyone else to be able to see or talk about your Financial Aid information with the Financial Aid Office (e.g. your mother, your father, etc.), you must fill out a Permission to Release Information form. Stop by or e-mail the Financial Aid Office for a copy.
- You will receive an Award Letter via mail or e-mail that details the specifics of your Financial Aid package (i.e. how many loans, grants, and scholarships you will be getting for that semester or school year).
- Keep a copy of all your Financial Aid documentation in a folder for future reference.

To complete the application online is a 3-step process.

1) Create a Federal Student Aid (FSA) ID username and password at www.fafsa.ed.gov. You’ll need your FSA ID to electronically sign your FAFSA application. (This replaces the PIN number used in prior years.)

2) Complete the electronic FAFSA at www.fafsa.ed.gov and review your answers carefully.

3) When you receive the results of your application, the Student Aid Report (SAR), review it for accuracy. Provide any needed information requested by the school as quickly as possible.

The Free Application for Federal Student Aid is your doorway to all forms of federal aid. Eligibility for the student loan program and the supplemental grant program are determined using the FAFSA.

The Virginia Tuition Assistance Grant (VTAG) Program application for Virginia residents must be completed to gain access to the Virginia Tuition Assistance Grant program.
Financial Aid at Jefferson College of Health Sciences is awarded based upon financial need and other awarding criteria. Need is determined by the following calculation:

\[
\text{Cost of Attendance} - \text{Expected Family Contribution (better known as "EFC")} = \text{Financial Need}
\]

The income, assets, and household information you report on the Free Application for Federal Student Aid (FAFSA) is used in a formula developed by the U.S. Congress to determine your eligibility for Federal Student Aid. Your Expected Family Contribution (EFC) is the amount of resources you should have to contribute toward your education, based on the information from your FAFSA application.

The Financial Aid staff creates a “financial aid package” based upon the student’s eligibility that comes as close as possible to meeting the student’s needs, up to direct cost.

This awarding policy allows the Office of Financial Aid to assist a broad base of students with limited funds.

To receive the balance of an award through Direct Deposit into your checking or savings account, please fill out the Direct Deposit Authorization Form (form available on our website).

For additional academic requirements for Continuance of Financial Aid Policy, please visit our website.

**Financial Aid Sources**

State:

- Virginia Tuition Assistance Grant Program, (VTAG)

Federal:

- Federal Pell Grant
- Federal Supplemental Education Opportunity Grant (SEOG)
- Federal Direct Stafford Loan (Subsidized and Unsubsidized)
- Federal Direct Parent Loan for Undergraduate Students (PLUS)
- Federal Direct Graduate PLUS Loan
- Federal Work Study (FWS)

Veterans' Benefits:

Most Programs are approved for veterans’ training. Amounts of benefits payable
vary with eligibility and enrollment status. Contact the Office of Financial Aid for details.

Please note: Jefferson College of Health Sciences does not participate in the Perkins Loan Program.

Institutional Scholarships and Grants

Jefferson offers institutional aid, scholarships, and grants in addition to the many federal financial aid programs available. These include:

- Debra Kimmel McNamara Nursing Scholarship
- Seavor Scholars Fund
- Donna Mathews Scholarship
- Dr. Robert L.A. Keeley Scholarship in Respiratory Care
- Stanley Kamm Memorial Nursing Scholarship
- Theresa Thomas Memorial Scholarship
- S. Lynn Marshall Emergency Fund
- Dr. Hugh Trout, Sr. Endowment
- Rita M. Bishop Scholarship
- James I. Sublett Nursing Scholarship
- Dorothy L. Gibboney Memorial Scholarship
- Dr. Frederick Louis Troxel Nursing Scholarship
- Dr. John L. Echternach, Jr. Memorial Scholarship
- George Solomonovich Scholarship
- James H. Neuhoff Memorial Scholarship
- Friendship Retirement Community Scholarship
- Jefferson College of Health Sciences Scholarship
- Jefferson College of Health Sciences Grant

**Virginia Tuition Assistance Grant (VTAG)** - The Virginia Tuition Assistance Grant Program application for Virginians must be completed to gain access to the Commonwealth of Virginia assistance program. The VTAG is available to both undergraduate and graduate students. Current amount of VTAG is $3,100 for undergraduate programs and $1,550 for graduate programs. Eligibility for the Virginia Tuition Assistance Grant is limited to four years or eight (8) semesters for undergraduates and up to degree completion, but no more than three years at the graduate level; whichever comes first. The Virginia Tuition Assistance Grant is limited to tuition assistance.

**Student Loans**

Students must maintain half-time enrollment (6 credit hours) to participate in the Federal Student Loan Program. This Program includes the Direct Stafford Subsidized Loan, Direct Stafford Unsubsidized Loan, the Direct Parent Plus Loan and the Direct Grad Plus loan.
**Federal Direct Subsidized Stafford** - Low-interest loans, must be at least half-time, repayment begins 6 months after graduation, withdrawal or falling below half-time, government pays interest while student is enrolled in school, not based on credit history. Maximum eligibility period is equal to 150% of the published length of the academic program. For annual loan limits see the chart below.

**Federal Direct Unsubsidized Stafford** - Low-interest loans, must be at least half time, repayment begins 6 months after graduation, withdrawal or falling below half time, interest is the responsibility of the student, not based on credit history. For annual loan limits see the chart below. You will be charged interest from the day the loan is disbursed until it’s paid in full, including in school, grace, and deferment and forbearance periods.

### Direct Stafford Loan Chart of Loan Limits for Undergraduate Students

<table>
<thead>
<tr>
<th>AWARD YEAR</th>
<th>DEPENDENT STUDENT</th>
<th>INDEPENDENT STUDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>Subsidized: $3,500.00</td>
<td>Subsidized: $3,500.00</td>
</tr>
<tr>
<td></td>
<td>Unsubsidized: $2,000.00</td>
<td>Unsubsidized: $6,000.00</td>
</tr>
<tr>
<td>2nd Year</td>
<td>Subsidized: $4,500.00</td>
<td>Subsidized: $4,500.00</td>
</tr>
<tr>
<td></td>
<td>Unsubsidized: $2,000.00</td>
<td>Unsubsidized: $6,000.00</td>
</tr>
<tr>
<td>3rd Year</td>
<td>Subsidized: $5,500.00</td>
<td>Subsidized: $5,500.00</td>
</tr>
<tr>
<td></td>
<td>Unsubsidized: $2,000.00</td>
<td>Unsubsidized: $7,000.00</td>
</tr>
<tr>
<td>4th &amp; 5th Year</td>
<td>Subsidized: $5,500.00</td>
<td>Subsidized: $5,500.00</td>
</tr>
<tr>
<td></td>
<td>Unsubsidized: $2,000.00</td>
<td>Unsubsidized: $7,000.00</td>
</tr>
</tbody>
</table>

### Direct Stafford Loan Chart of Loan Limits for Graduate Students

<table>
<thead>
<tr>
<th>AWARD YEAR</th>
<th>GRADUATE STUDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsubsidized: $20,500.00</td>
</tr>
</tbody>
</table>

**Federal Direct Plus & Grad Plus Loan** - Low-interest loans for Parents of dependent students or Graduate students, repayment begins 30-45 days after last payment is released or credited to student account. The Plus/Grad Plus loan is based on credit history. The yearly limit on a PLUS/Grad PLUS loan is equal to the cost of attendance minus any other financial aid received. If the parent is denied a loan the dependent student is allowed to request additional unsubsidized loan funds. Interest is charged on the loan from the date the first disbursement is made until the loan is paid in full.

**Alternative Loans** - Alternative loans are funds available to students who are not eligible for financial aid or who need additional funds to meet educational needs.
Financing Your College Education

expenses. The student’s eligibility is determined by the cost of attendance minus financial aid.

**Tracking the Status of Your Loan**

You may track the status of your federal loan at:

https://studentloans.gov/myDirectLoan/index.action

**Entrance and Exit Interviews**

All students who have received federal student loans must complete entrance and exit interviews. Please go to the student loan counseling section of the Direct Loan website for all information on loans.

**Aid for International Students**

International students are awarded Institutional Awards based upon Admissions criteria.

**Financial Aid Links**

These links are great resources of information about federal and state financial aid.

- [www.ed.gov](http://www.ed.gov)
- [www.schev.edu](http://www.schev.edu)
- [www.collegeboard.com](http://www.collegeboard.com)
- [www.finaid.org](http://www.finaid.org)

**Title IV Funds** – The following aid sources are federal monies governed by Title IV, U. S. Department of Education (USDE) regulations:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study Program
- Federal William D. Ford Direct Loan Program

**Non-Title IV Funds** – The following aid sources are categorized as non-Title IV funds:

- Virginia Tuition Assistant Grant Program (VTAG)
- Other state, private, or institutional sources of aid

**Return of Title IV Policy**

Federal law requires students who withdraw from the College after receiving
federal financial aid to return funds not earned to the U.S. Department of Education. If a student receives more funds than he or she earned, the College and, in some cases, the student must return the funds.

A statutory schedule is used to determine the amount of Student Financial Aid Program (SFA) funds a student has earned if withdrawal from classes occurs prior to the end of the term. If the student withdraws from class after 60% of the semester has passed, no refund of SFA funds is required to be made to the funding agency. Withdrawals prior to this 60% threshold require refunds of SFA Program assistance to the funding agency in an amount equal to the percentage of time the student was enrolled in and attending classes.

The percentage of the semester completed is calculated using the total number of calendar days in the semester for which the College awards the assistance, divided into the number of calendar days completed in that semester, as of the day the student withdraws.

The College refund of SFA Program funds does not mitigate the student's obligation to make payments to the College for services provided, in accordance with College policy.

**Order of Return of SFA Program Funds**

Funds credited to outstanding loan balances for the semester for which a return of funds is required must be returned in the following order:

- Federal Direct Unsubsidized Stafford loans
- Federal Direct Subsidized Stafford loans
- Federal Direct PLUS/GRAD PLUS loans

If funds remain after repaying all loan amounts, those remaining funds must be credited in the following order:

- Federal Pell Grants
- Federal Supplemental Educational Opportunity Grants (FSEOG)
- Other assistance under this Title for which a return of funds is required

Students may contact the Office of Financial Aid to receive details and examples of the Title IV refund policy.

**Satisfactory Academic Progress for Continuance of Financial Aid**

In order to receive federal and state financial aid, students must be in an eligible program of study and making satisfactory progress in their course of study as outlined in the Academic Information section of this catalog. All entering students at the College, including those returning after a period of non-enrollment, are admitted with the confidence that they will make satisfactory progress.
All students who receive federal financial aid must be making satisfactory progress toward graduation. Satisfactory academic measurable progress for financial aid purposes is defined as a passing grade ("A," "B," "C," "D" or "P") in at least two-thirds of the credit-hour load in which the student is enrolled each semester. Undergraduate students are required to maintain a cumulative grade point average of 2.00 ("C") or better. Graduate students are required to maintain a cumulative grade point average of 3.00 ("B") or better. Students may receive financial aid for up to 150% of the length of an academic program.

If a student has not maintained the minimum standards by the end of the semester, financial aid assistance will continue in a warning status for a period of one (1) semester. If a student is on warning and satisfactory progress is attained, then financial aid is continued and the warning status is removed. If a student has been placed on warning and at the end of the warning semester satisfactory academic progress is not attained the student is placed on Financial Aid Suspension and no Federal aid is awarded. Students re-enrolling after periods of non-enrollment or changing academic programs following program dismissal or suspension will be evaluated based on their last period of enrollment.

A student will be terminated from Financial Aid without a warning period semester if he/she:

- Has attempted 150% of their program of study. All attempted hours will be considered, including transfer hours from other institutions.
- Fails to maintain a minimum 2.0 cumulative grade point average midway through their program of study.

**Appeal Process for Students on Financial Aid**

Students placed on Financial Aid Suspension may appeal their status. Students who choose to appeal must submit a letter clearly outlining the unusual circumstances with supporting documents to the Office of Financial Aid. The Financial Aid Appeals Committee will review the student appeal request on an as needed basis. The student may request to attend the committee meeting to explain their situation. The Committee will review the appeal and the student will be notified in writing of the decision. All decisions are final.

**The Reinstatement Process**

Reinstatement means that the student has resolved his/her suspension status and will be considered for Federal Aid another term. In case of less than satisfactory academic progress, reinstatement of aid in full is atypical and is based on unusual circumstances affecting academic progress that were not within the student’s control and are not of a recurring nature. A student may be reinstated:
If a grade change results in an increase in the cumulative grade point average and/or percent of cumulative credits completed.

After completing credits to raise the cumulative grade point average and/or completion rate of credit hour attempted.

The student must notify the office of financial aid of any changes that may result in reinstatement.

**Student Withdrawals and Refunds**

The College incurs costs based on student registration data. Since many of the costs cannot be recovered, refunds to students are limited. A student who completely withdraws from the College is eligible for a refund of tuition and refundable fees as described in the institutional refund based on withdrawal date policy. Tuition refunds for individual classes are addressed in the Drop/Add section.

**Add/Drop**

Adding or dropping courses must occur in accordance with the *Academic Information* section of this catalog. Changes to the number of credit hours enrolled may affect the status of some financial aid. The student is responsible for any additional cost incurred due to a change in credit hours.

**Withdrawal Date**

The withdrawal date policy listed below is strictly for the purposes of financial aid. For academic purposes, see the *Academic Information* section of this catalog.

The withdrawal date, as determined from the attendance records is usually:

- The date the student began the withdrawal process prescribed by the school
- The date the student otherwise provided official notification to the school of the intent to withdraw; or
- If the student did not begin the withdrawal process or otherwise notified the school of the intent to withdraw, the midpoint of the semester for which SFA Program assistance was disbursed or a later date documented by the school.

If the school determines that a student did not begin the withdrawal process or otherwise notify the school of the intent to withdraw due to illness, accident, serious personal loss, or other circumstances beyond the student’s control, the school may determine the appropriate withdrawal date.
ART 210    Visual Thinking Strategies:    CREDITS:  3
Using some of history’s most important works of art, this course explores Visual Thinking Strategies as a means of enhancing visual acuity, increasing sensitivity to surroundings, and building collaboration skills.

ART 211    Drawing I    CREDITS:  3
This is a one-semester studio course concentrating on perspective, portraiture, figure drawing and composition using pencil and charcoal as the primary media. The course offers a means by which the student may develop independent thinking, environmental awareness and self-expression.
Prereq: ART 210

ART 212    Drawing II    CREDITS:  3
This is a one-semester studio course that expands on the experiences and processes of Drawing I. The student will gain additional knowledge and skill through work with pen and ink, stipple and ink washes.
Prereq: ART 211

BIO 101    General Biology I    CREDITS:  4
This is the first of a two-semester lecture and laboratory study of general biology. The course focuses on the basic cellular processes common to living organisms. These include aspects of molecular and cell biology, metabolism and photosynthesis, genetics, and biotechnology. The laboratory component of the course focuses on principles of basic experimental design, data collection, data graphing, and methods of biochemical analysis. The structure and function of nucleic acids, as well as basic cell structure and function are also considered. Mendelian genetics is developed in detail. Experimental work in the laboratory is closely correlated with the lecture component.
Coreq: BIO 101L

BIO 101L    General Biology I Laboratory    CREDITS:  0
This is the first of a two-semester lecture and laboratory study of general biology. The course focuses on the basic cellular processes common to living organisms. These include aspects of molecular and cell biology, metabolism and photosynthesis, genetics, and biotechnology. The laboratory component of the course focuses on principles of basic experimental design, data collection, data graphing, and methods of biochemical analysis. The structure and function of nucleic acids, as well as basic cell structure and function are also considered. Mendelian genetics is developed in detail. Experimental work in the laboratory is closely correlated with the lecture component.
Coreq: BIO 101

BIO 102    General Biology II    CREDITS:  4
This is the second of a two-semester lecture and laboratory study of general biology. The course focuses on population, speciation, systematics, cladistics, and invertebrate and vertebrate evolution. Animal systems from Porifera through Primates are considered in detail to elaborate the phylogeny of invertebrates through vertebrates. Experimental work in the laboratory is closely correlated with the lecture component.
Prereq: BIO 101
Coreq: BIO 102L
BIO 102L  General Biology II Laboratory  CREDITS: 0
This is the second of a two-semester lecture and laboratory study of general biology. The course focuses on population, speciation, systematics, cladistics, and invertebrate and vertebrate evolution. Animal systems from Porifera through Primates are considered in detail to elaborate the phylogeny of invertebrates through vertebrates. Experimental work in the laboratory is closely correlated with the lecture component.
Coreq: BIO 102

BIO 199L  Biology Supervised Study I  CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: BIO 101

BIO 211  Anatomy & Physiology I  CREDITS: 4
This is a lecture and lab course that focuses on the basic structure and function of the human body for students preparing for professions in the healthcare field. This is the first of in a sequence of two courses in anatomy and physiology. The course will prepare students for continued study of human physiology and disease processes in subsequent courses. The content includes detailed consideration of basic cellular processes, integumentary, skeletal, muscular, and nervous system anatomy and physiology. The laboratory component closely follows lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.
Coreq: BIO 211L

BIO 211L  Anatomy & Physiology I Laboratory  CREDITS: 0
This is a lecture and lab course that focuses on the basic structure and function of the human body for students preparing for professions in the healthcare field. This is the first of in a sequence of two courses in anatomy and physiology. The course will prepare students for continued study of human physiology and disease processes in subsequent courses. The content includes detailed consideration of basic cellular processes, integumentary, skeletal, muscular, and nervous system anatomy and physiology. The laboratory component closely follows lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.
Coreq: BIO 211

BIO 212  Anatomy & Physiology II  CREDITS: 4
This is the second in a sequence of two courses in anatomy and physiology for students preparing for professions in the healthcare field. The course provides a study of the basic structure and function of the human body with an emphasis on system anatomy and current theories of physiology. The course will prepare students for continued study of human physiology and disease process in subsequent courses. The course focuses on cardiovascular, respiratory, endocrine, digestive, immune, reproductive and urinary systems. The laboratory component closely follows the lecture and is designed to support the lecture with a laboratory experience that will require student participation in
animal dissection and experimentation in basic physiology.

Prereq: BIO 211
Coreq: BIO 212L

**BIO 212L  Anatomy & Physiology II Laboratory  CREDITS: 0**

The laboratory component closely follows lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.

Coreq: BIO 212

**BIO 215  Introduction to Scientific Literature  CREDITS: 2**

This course introduces further learning of scientific research through the understanding of key elements in the biological scientific literature. A survey of the different bodies of reference materials available for research in the biological literature will be offered. This course will provide the opportunity to gain proficiency in accessing, interpreting and synthesizing messages from different research efforts in the life sciences. The student will ultimately be able to learn how to use the biological literature in order to evaluate specific scientific publications.

**BIO 220  Introduction Cell and Molecular Biology  CREDITS: 4**

The current understanding of molecular events that regulate cellular function is introduced. Students focus on connecting experimental methods and results to key concepts. Emphasis is placed on relating cellular mechanisms to normal and disease conditions in humans, including gene expression, signal processing, and bioenergetics. The course is taught in a lecture/lab format.

Prereq: (BIO 102 and CHM 112)
Coreq: BIO 220L

**BIO 220L  Cell and Molecular Biology Laboratory  CREDITS: 0**

The current understanding of molecular events that regulate cellular function is introduced. Students focus on connecting experimental methods and results to key concepts. Emphasis is placed on relating cellular mechanisms to normal and disease conditions in humans, including gene expression, signal processing, and bioenergetics. The course is taught in a lecture/lab format.

Coreq: BIO 220

**BIO 230  Comparative Anatomy  CREDITS: 4**

This course focuses on the anatomical study and dissection of representative chordates. Laboratory will illustrate and expand on lecture.

Prereq: BIO 102
Coreq: BIO 230L

**BIO 230L  Comparative Anatomy Laboratory  CREDITS: 0**

This course focuses on the anatomical study and dissection of representative chordates. Laboratory will illustrate and expand on lecture.

Coreq: BIO 230

**BIO 240  Comparative Physiology  CREDITS: 4**

This course will introduce the student to the concept of homeostasis and compare the physiological processes in various chordates. The following systems will be examined: nervous, muscular, cardiovascular, respiratory, endocrine, digestive and renal. In
addition, integrative topics such as fluid and pH balance, thermoregulation and metabolism will be considered. Laboratory will expand on and illustrate lecture material.

Prereq: BIO 102
Coreq: BIO 240L

**BIO 240L Comparative Physiology Laboratory**

This course will introduce the student to the concept of homeostasis and compare the physiological processes in various chordates. The following systems will be examined: nervous, muscular, cardiovascular, respiratory, endocrine, digestive and renal. In addition, integrative topics such as fluid and pH balance, thermoregulation and metabolism will be considered. Laboratory will expand on and illustrate lecture material.

Coreq: BIO 240

**BIO 253 Microbiology**

This course provides a detailed study of the definition, scope, history and significance of microbiology to students preparing for professions in healthcare. The lecture focuses on microbial taxonomy, microbial structure, genetics and life history. It also considers the basic aspects of microbial physiology and their ability to cause infection. The course has emphasis on the human immune process, modes of microbial transmission and virulence. The laboratory component is designed to examine basic concepts of taxonomy, microbial morphology, staining characteristics, population studies, isolation methods and the control of microbes. The laboratory will require student participation in experimentation and observation of results in these basic microbiology concepts.

Prereq: BIO 212 or BIO 240
Coreq: BIO 253L

**BIO 253L Microbiology Laboratory**

This course provides a detailed study of the definition, scope, history and significance of microbiology to students preparing for professions in healthcare. The lecture focuses on microbial taxonomy, microbial structure, genetics and life history. It also considers the basic aspects of microbial physiology and their ability to cause infection. The course has emphasis on the human immune process, modes of microbial transmission and virulence. The laboratory component is designed to examine basic concepts of taxonomy, microbial morphology, staining characteristics, population studies, isolation methods and the control of microbes. The laboratory will require student participation in experimentation and observation of results in these basic microbiology concepts.

Coreq: BIO 253

**BIO 299L Biology Supervised Study II**

This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.

Prereq: BIO 199L

**BIO 300 Pathophysiology**

This course provides the student with conceptual and theoretical information applicable to pathological conditions resultant in disordered physiology. Mechanisms of production of signs and symptoms of different disease syndromes will be discussed. A body systems
approach will be used to present the mechanisms underlying the disease, and the clinical manifestations exhibited.

Prereq:  BIO 253

**BIO 306  Genetics**  
*CREDITS:  4*  
Students are introduced to the concepts of inheritance, encompassing the concepts of Mendelian genetics in both plants and animals. Emphasis is on the application of molecular concepts focused on gene expression. This course is taught in a lecture/lab format.

Prereq:  (BIO 102 or BIO 212) and CHM 112

**BIO 306L  Genetics Laboratory**  
*CREDITS:  0*  
Students are introduced to the concepts of inheritance, encompassing the concepts of Mendelian genetics in both plants and animals. Emphasis is on the application of molecular concepts focused on gene expression. This course is taught in a lecture/lab format.

Coreq:  BIO 306

**BIO 309  Physiological Foundations Pharmacology**  
*CREDITS:  3*  
This course is designed to address physiological foundations of pharmacology. The course includes and develops concepts in pharmacokinetics, pharmacodynamics, drug development, drug safety, drug selection and monitoring for safety issues. The course addresses drug classifications and appropriate uses and applications.

Prereq:  BIO 253

**BIO 312  Research Methodology**  
*CREDITS:  3*  
This course expands upon students' knowledge concerning the role of research in the biomedical sciences. The scientific method as well as research methods and processes are examined in detail. Students critically review healthcare-specific, empirical literature. Emphasis is placed upon the student's development of abilities to read, understand, and critically respond to current research from scientific journals. Emphasis is also placed on the ethics of the use of human subjects in biomedical research. Students are expected to evaluate critically and discuss research designs, sampling designs, data collection methods, and data analyses.

Prereq:  (MTH 210 or MTH 301 or MTH 265) and BIO 215

**BIO 320  Special Topic in Biomedical Sciences**  
*CREDITS:  3*  
Students explore a selected topic in Biomedical Science not currently offered either as a Biomedical core curriculum or elective course. Special topics may include: embryology, medical parasitology, human histology, mathematical models in biology, bioinformatics, instrumental analysis, neurobiology, molecular pharmacology, or biophysics. The topic for a semester offering will be selected, and the expanded syllabus approved at least one semester in advance by the biomedical faculty. BIO 320 may be taken, with a different topic, up to two (2) times (total 6 credits).

Prereq:  (BIO 215 and BIO 220)

**BIO 321  Gross Anatomy I**  
*CREDITS:  3*  
This course is the first of a two semester lecture and laboratory study of human gross anatomy. It is designed to enhance and develop the general knowledge base received in a college-level anatomy and physiology course. Lecture discussions will support the
laboratory. During the laboratory, students will be required to participate in the dissection of the entire musculoskeletal system of a human cadaver. Emphasis will be on osseous anatomical features, skeletal muscles, tendons, ligaments, nerves, and blood vessels that supply the skeletal muscles. Additional emphasis will be placed on body surface anatomy as it relates to skeletal features and to the underlying skeletal muscles.

Prereq: BIO 211 or BIO 230
Coreq: BIO 321L

**BIO 321L  Gross Anatomy I Laboratory**  
**CREDITS: 0**

This course is the first of a two semester lecture and laboratory study of human gross anatomy. It is designed to enhance and develop the general knowledge base received in a college-level anatomy and physiology course. Lecture discussions will support the laboratory. During the laboratory, students will be required to participate in the dissection of the entire musculoskeletal system of a human cadaver. Emphasis will be on osseous anatomical features, skeletal muscles, tendons, ligaments, nerves, and blood vessels that supply the skeletal muscles. Additional emphasis will be placed on body surface anatomy as it relates to skeletal features and to the underlying skeletal muscles.

Coreq: BIO 321

**BIO 322  Gross Anatomy II**  
**CREDITS: 3**

This course is the second of a two-semester lecture and laboratory detailed study of human anatomy. It is designed to enhance and develop the knowledge base from the first semester of gross anatomy. Lecture discussion will support the laboratory. During the laboratory students will be required to participate in the dissection of a human cadaver. Lecture and laboratory emphasis will be on the dissection of the entire thoracic, abdominal and pelvic cavities. Lecture and dissection focus will also be on visceral structures, nerves and blood supply. In addition, the brain, brainstem and cranial nerves will be considered in anticipation of laboratory dissection.

Prereq: BIO 321
Coreq: BIO 322L

**BIO 322L  Gross Anatomy II Laboratory**  
**CREDITS: 0**

During the laboratory students will be required to participate in the dissection of a human cadaver. Lecture and laboratory emphasis will be on the dissection of the entire thoracic, abdominal and pelvic cavities. Lecture and dissection focus will also be on visceral structures, nerves and blood supply. In addition, the brain, brainstem and cranial nerves will be considered in anticipation of laboratory dissection.

Coreq: BIO 322

**BIO 325  Spring Flora of Virginia**  
**CREDITS: 3**

This course addresses vernal plants commonly encountered in Virginia. The course focuses on the identification of a variety of plants observed in the field. Emphasis is on spring wildflowers, trees, and some non-vascular plants. Students work individually to produce a collection of digital photographs that illustrate the plants they identify. The course requires students to work in the field in order to obtain photographs. Students learn basic plant anatomy, taxonomy, and the use of dichotomous keys to identify common plants. Students learn which common plants are used as medicinal plants and which plants have application in common herbal remedies.

Prereq: BIO 102 or BIO 212
BIO 326  Summer Flora of Virginia  CREDITS:  3
This course addresses plants commonly encountered in Virginia during the estival months of summer. The course focuses on the identification of a variety summer plants as they are encountered in the field. Emphasis is on native flowering plants, trees, and some non-vascular plants. Students work to produce a collection of digital photographs that illustrate the plants they identify. The course requires students to work in the field in order to obtain photographs. In addition to plant identification, students develop an understanding of how and when herbal plants are collected, stored, and prepared for use. Emphasis is on microspores that are known to be important allergens (trees, ragweeds, grasses, molds) and or known to be from regional plant species used by honey bees (Apis melliflora) in the production of honey.
Prereq:  BIO 102 or BIO 212

BIO 365  Integration of Science Foundations  CREDITS:  3
Students in this course explore the interactions within and between the natural sciences (biology, chemistry, and physics) and the behavioral sciences (psychology, sociology, and bioethics). Basic principles of human physiology and pathophysiology, from the molecular level to the whole organism are expounded. The impact of physical and biochemical principles on cellular and macroscopic transport, signal processing, and response to changes in living organisms is demonstrated. The influences of biological, psychological, and socio-cultural factors on behavior and well-being are examined. A strong knowledge base for future endeavors in both clinical and non-clinical biomedical fields of study is provided. Permission from the Biomedical Sciences Program Director is necessary to enroll in this course.
Prereq:  BIO 240 and BIO 304 and PSY 101
Coreq:  CHM 361

BIO 399L  Biology Supervised Study III  CREDITS:  1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq:  BIO 299L

BIO 401  Molecular Biology  CREDITS:  3
This course is a study of the mechanisms responsible for the transmission and expression of the genetic information of the human genome. The course will consider the scientific basis of eukaryotic and prokaryotic DNA replication, chromosomal structure and function, gene structure and function, and gene regulation. It will also develop topics that describe the role of DNA in translation and the complex role of mutation within a genome.
Prereq:  CHM 360 and BIO 304

BIO 404  Cell Biology  CREDITS:  3
This course focuses on the current concepts of the molecular organization and processes within animal, plant, and bacterial cells. Emphasis is placed on the structure, function, and organization of cells, cellular energetics, plasma membrane dynamics, intercellular chemical signaling, cell interactions, and cellular mechanisms of membrane transport.
Prereq:  CHM 360
BIO 405  Cancer Biology  CREDITS:  3
This course provides students with a background in the molecular and cellular events involved in the initiation, progression, and spread of cancer. Specific types of cancer are used to illustrate how normal regulatory systems have been altered in neoplastic cells. The role of genes involved in the development or prevention of cancer is also described as well as new strategies for treatment.
Prereq:  BIO 304

BIO 410  Capstone Research  CREDITS:  3
This course uses the fundamental concepts of research developed in BIO 312 Research Methodology. Students select and develop a topic within biomedical sciences. The literature relevant to the selected topic is investigated to produce an extensive, critical review paper.
Prereq:  BIO 312

BIO 412  Immunology  CREDITS:  3
This course is designed to provide an introduction to the science of immunology by focusing on the tissues, cells and mechanisms involved in the normal immune response. Emphasis will be placed on the mechanisms of B and T cell sensitization, and cellular specialization of immune cells. Detailed consideration of active and passive immunities will focus on the human system. Outside reading will provide supplemental information on various immunological disorders and pathologies.
Prereq:  BIO 253

BIO 420  Radiographic Human Anatomy  CREDITS:  3
This course focuses on understanding and visualizing normal internal human anatomy with the aid of radiographic images and procedures. Given appropriate anatomical preparation, proper interpretation of radiographic images presupposes a detailed knowledge of anatomy. Radiography is valuable in the detection of early disease stages. This course develops student appreciation for radiographic diagnosis.
Prereq:  BIO 322

BIO 430  Neuroanatomy and Neurophysiology  CREDITS:  4
This course is a comprehensive study of the human nervous system, including anatomy, physiology and pathophysiology. Particular attention will focus on embryological development and the resulting pathological consequences of abnormal development. Students will focus on cause and effect relationships that are known to exist in neurological disorders. The class will also examine both CNS and PNS lesions and their associated symptoms. The laboratory portion of the course will focus on structures as related to function, assessment of neurological function and evaluation using common neurological instruments. The laboratory will emphasize the neurological exam as a part of the comprehensive physical examination and the recognition of common deficits.
Prereq:  BIO 322
Coreq:  BIO 430L

BIO 430L  Neuroanatomy & Neurophysiology Lab  CREDITS:  0
The laboratory portion of the course will focus on structures as related to function, assessment of neurological function and evaluation using common neurological instruments. The laboratory will emphasize the neurological exam as a part of the comprehensive physical examination and the recognition of common deficits.
Coreq:  BIO 430
BIO 450   Current Issues in Biology   CREDITS: 1

This course is designed to promote discussion of current biology topics, how those topics can be related or applied to healthcare disciplines, and potential ethical considerations. Through a format of guided discussions, current literature searches, and written surveys centered on recent biology findings, discoveries, or controversial issues students enhance their understanding of the scientific method as it relates to biology. The course is designed to increase the student's awareness of the contributions which are being made in biology and applied in other areas, and to further reinforce the student's critical thinking and oral and written communication skills.

Prereq:  BIO 312

BIO 499L   Biology Supervised Study IV   CREDITS: 1

This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.

Prereq:  BIO 399L

BIO 501   Principles of Cell Biology   CREDITS: 3

A foundation in the fundamental molecular and cellular processes that underlie biological systems is established in this course. Students are prepared for advanced coursework in molecular basis of cellular structure. Topics include cells and genomes, cell chemistry and biosynthesis, macromolecules, basic genetic mechanisms, cellular and molecular techniques used in contemporary research, the internal organization of the cell, and cell-cell interactions. Quantitative analysis is utilized to emphasize the usefulness of calculations in understanding cellular function. Analyses of relevant, recent publications are included.

BIO 509   Clinical Anatomy I   CREDITS: 2

This course is the first in a two-course sequence devoted to the study of clinical anatomy. Emphasis will be given to the clinical significance of anatomical features, and their interrelationships. This course will follow an organ system approach in order to facilitate concordance with core clinical courses (Clinical Medicine and Clinical Pharmacology). Lectures will provide a synopsis for the laboratory component, which will include detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.

Coreq:  BIO 509L

BIO 509L   Clinical Anatomy I Laboratory   CREDITS: 0

The laboratory component of this course includes detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.

Coreq:  BIO 509

BIO 510   Clinical Anatomy II   CREDITS: 2

This course is the second in a two-course sequence devoted to the study of clinical anatomy. Emphasis will be given to the clinical significance of anatomical features, and their interrelationships. This course will follow an organ system approach in order to facilitate concordance with core clinical courses (Clinical Medicine and Clinical Pharmacology). Lectures will provide a synopsis for the laboratory component, which will include detailed observation of human cadaver prosections, performance of dissections,
and study of various anatomical models.

Coreq: BIO 510L

**BIO 510L  Clinical Anatomy II Laboratory**  CREDITS: 0

The laboratory component of this course includes detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.

Coreq: BIO 510

**BIO 511  Clinical Anatomy III**  CREDITS: 2

This course is the third in a three-course sequence devoted to the study of clinical anatomy. Emphasis will be given to the clinical significance of anatomical features, and their interrelationships. This course will follow an organ system approach in order to facilitate concordance with core clinical courses (Clinical Medicine and Clinical Pharmacology). Lectures will provide a synopsis for the laboratory component, which will include detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.

Coreq: BIO 511L

**BIO 511L  Clinical Anatomy III Laboratory**  CREDITS: 0

The laboratory component of this course includes detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.

Coreq: BIO 511

**BIO 515  Comparative Anatomy**  CREDITS: 3

This course is a study of the structural/functional relationships of vertebrate organs and systems. Taxonomy, evolutionary relationships and morphological adaptations of fish, amphibians, reptiles, birds and mammals are emphasized. Specific biochemical and cellular mechanisms associated with the morphological development of vertebrates are examined in terms of cellular structure and function of tissue and organ systems among the vertebrate classes. Selected readings from recent scientific literature are analyzed with a focus on key contemporary research questions related to the above topics.

Prereq: BIO 501

**BIO 521  Clinical Gross Anatomy for Clin Apps**  CREDITS: 4

Clinical Gross Anatomy is a cadaver-based course focusing on human gross anatomy with a clinical emphasis. Lecture will provide background and synopsis for use with virtual dissections. The laboratory component will include dissection and observation of cadaver prosections combined with the study of various anatomical models.

Coreq: BIO 521L

**BIO 521L  Clinical Gross Anatomy Laboratory**  CREDITS: 0

The laboratory component includes dissection and observation of cadaver prosections combined with the study of various anatomical models.

Coreq: BIO 521

**BIO 530  Func Clin Neuroanatomy & Neurophys**  CREDITS: 4

This course is a comprehensive exploration of the human nervous system (both CNS and PNS) and is an integrated, multi-disciplinary, functional neuroscience course, emphasizing the structural, biochemical and molecular mechanisms of the normal nervous system in relationship to neurological dysfunction and neurodegeneration. This course offers the student the essentials in the neurosciences and provides current
research topics upon which a more comprehensive knowledge of clinical neuroanatomy and neurophysiology can be based.

Prereq: BIO 521
Coreq: OT 520

**BIO 530L Func Clin Neurannatomy & Neurophys Lab**
CREDITS: 0
This course is a comprehensive exploration of the human nervous system (both CNS and PNS) and is an integrated, multi-disciplinary, functional neuroscience course, emphasizing the structural, biochemical and molecular mechanisms of the normal nervous system in relationship to neurological dysfunction and neurodegeneration. This course offers the student the essentials in the neurosciences and provides current research topics upon which a more comprehensive knowledge of clinical neuroanatomy and neurophysiology can be based.

**BIO 535 Human Gross Anatomy for Biology**
CREDITS: 4
This course focuses on the structure and function of human anatomy. Emphasis is placed on the structural relationships evident from gross dissection of adult human cadavers. Cadaver preparations are utilized in the laboratory for study and identification. This course is not intended for students wishing to pursue advanced education in anatomy for careers in healthcare.

Prereq: BIO 515
Coreq: BIO 535L

**BIO 535L Human Gross Anatomy for Biology Lab**
CREDITS: 0
This course focuses on the structure and function of human anatomy. Emphasis is placed on the structural relationships evident from gross dissection of adult human cadavers. Cadaver preparations are utilized in the laboratory for study and identification. This course is not intended for students wishing to pursue advanced education in anatomy for careers in healthcare.

Coreq: BIO 535

**BIO 545 Microbial Genetics**
CREDITS: 4
This course explores the mechanisms and regulation of gene expression in Bacteria, Archaea and phage. Genetic analysis of complex processes, including sensory transduction, cell division, and global regulatory circuits are emphasized, along with the genetic basis of microbial pathogenicity in humans. Analysis of the current literature is supplemented with critical discussion of classic papers in the field.

Prereq: BIO 501
Coreq: BIO 545L

**BIO 545L Microbial Genetics Lab**
CREDITS: 0
This course explores the mechanisms and regulation of gene expression in Bacteria, Archaea and phage. Genetic analysis of complex processes, including sensory transduction, cell division, and global regulatory circuits are emphasized, along with the genetic basis of microbial pathogenicity in humans. Analysis of the current literature is supplemented with critical discussion of classic papers in the field.

Coreq: BIO 545

**BIO 555 Human Physiology**
CREDITS: 4
This course explores the basic principles of human physiology and pathophysiology, from the molecular level to the whole organism, with emphasis on: (a) skeletal muscle and
exercise physiology, (b) cardio-vascular, (c) renal and urinary, (d) respiratory, (e) gastrointestinal, (f) endocrine, and (g) reproductive systems. Each system includes a discussion of the body's integrated response and adaptation to common environmental challenges and pathophysiological diseases. Quantitative analysis is emphasized to enhance understanding of physiological processes and maintenance of homeostatic balance in the body.

Prereq: BIO 535

**BUS 111  Introduction to Computers  CREDITS: 1**
This course introduces students to microcomputers covering the following topics: basic computer concepts (types of computers, hardware, data communications, and computer software), basics of the Microsoft® operating system, file management, Microsoft® Internet Explorer browsing software, the layout of Microsoft® Office suite, and Microsoft® Word.

**BUS 131  Computer Concepts & Applications  CREDITS: 3**
This course introduces the student to the Windows operating system, File Management skills, the web browser Internet Explorer, the current Microsoft® Office layout and the following Microsoft® applications: word processing (Word), spreadsheets (Excel), and multimedia presentations (PowerPoint). This course provides the opportunity to apply newly learned skills in a final project.

**CHM 110  Chemistry for Health Sciences  CREDITS: 4**
Students focus on developing an understanding of states of matter, the physical properties of inorganic and organic compounds, chemical reactivity, and the fundamental characteristics of biological compounds. Classroom discussion through practical application in skills-based laboratory activities is reinforced. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.

Coreq: CHM 110L

**CHM 110L  Chemistry for Health Sciences Lab  CREDITS: 0**
Students focus on developing an understanding of states of matter, the physical properties of inorganic and organic compounds, chemical reactivity, and the fundamental characteristics of biological compounds. Classroom discussion through practical application in skills-based laboratory activities is reinforced. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.

Coreq: CHM 110

**CHM 111  General Chemistry I  CREDITS: 4**
This course is the first of a two-semester lecture and laboratory study of general chemistry. It examines the fundamental properties of elements, compounds and their quantitative relationships. Stoichiometry and molecular structure are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in experimentation that measure basic chemical reactions and develop fundamental skills important to introductory chemistry.

Coreq: CHM 111L

**CHM 111L  General Chemistry I Laboratory  CREDITS: 0**
This course is the first of a two-semester lecture and laboratory study of general chemistry. It examines the fundamental properties of elements, compounds and their quantitative relationships. Stoichiometry and molecular structure are stressed. The
laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in experimentation that measure basic chemical reactions and develop fundamental skills important to introductory chemistry.

Coreq: CHM 111

**CHM 112 General Chemistry II**

CREDITS: 4

This course is the second of a two-semester lecture and laboratory study of the principles of general chemistry. It emphasizes the study of modern principles of general chemistry, chemical kinetics, chemical equilibrium and chemical thermodynamics. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in exercises that measure basic chemical reactions and develop fundamental skill important to introductory chemistry.

Prereq: CHM 111

Coreq: CHM 112L

**CHM 112L General Chemistry II Laboratory**

CREDITS: 0

The laboratory will require students to be involved in exercises that measure basic chemical reactions and develop fundamental skill important to introductory chemistry.

Coreq: CHM 112

**CHM 199L Chemistry Supervised Study I**

CREDITS: 1

This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.

Prereq: CHM 111

**CHM 215 Introduction to Scientific Literature**

CREDITS: 2

This course introduces further learning of scientific research through the understanding of key elements in the scientific literature related to chemistry. A survey of the different bodies of reference materials available in chemistry research will be offered. This course will provide the opportunity to gain proficiency in accessing, interpreting and synthesizing messages from different research efforts in the life sciences. The student will ultimately learn how to use the literature in order to evaluate specific chemistry-related scientific publications.

Prereq: IDS 255 or GEN 101

**CHM 244 Organic Chemistry I**

CREDITS: 4

This course is the first of a two-semester lecture and laboratory study of organic chemistry. The lecture component is designed to provide a detailed study of carbon containing compounds, their properties and characteristics. Emphasis is placed on organic compound nomenclature, isomerism and characteristics of organic structure. Compounds of importance to biological systems and biochemistry are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that
Involves basic reactions fundamental to organic chemistry.

**Prereq:** CHM 112

**Coreq:** CHM 244L

**CHM 244L Organic Chemistry I Lab**

This course is the first of a two-semester lecture and laboratory study of organic chemistry. The lecture component is designed to provide a detailed study of carbon containing compounds, their properties and characteristics. Emphasis is placed on organic compound nomenclature, isomerism and characteristics of organic structure. Compounds of importance to biological systems and biochemistry are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.

**Coreq:** CHM 244

**CHM 245 Organic Chemistry II**

This course is a continuation of a two-semester study of organic chemistry. The course focuses on the synthesis and reaction mechanisms of organic compounds. Emphasis is placed on compounds of biological importance. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.

**Prereq:** CHM 244

**Coreq:** CHM 245L

**CHM 245L Organic Chemistry II Laboratory**

This course is a continuation of a two-semester study of organic chemistry. The course focuses on the synthesis and reaction mechanisms of organic compounds. Emphasis is placed on compounds of biological importance. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.

**Coreq:** CHM 245

**CHM 299L Chemistry Supervised Study II**

This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.

**Prereq:** CHM 199L

**CHM 300L Chemistry Methods Laboratory**

This laboratory course is designed to demonstrate the principles studied in analytical chemistry and organic chemistry II.

**Prereq:** CHM 242 or CHM 351

**CHM 360 Biochemistry I**

This course presents the biochemical principles and processes that govern living systems. Chemical structures and functional relationships of proteins, enzymes, lipids,
and carbohydrates are emphasized. In addition, emphasis is placed on cellular bioenergetics, chemical pathways of metabolism, and the regulation of metabolism. The laboratory component supports the lecture component with laboratory exercises that demonstrate the biochemical processes discussed during lecture.

Prereq: CHM 244
Coreq: CHM 360L

**CHM 360L  Biochemistry I Laboratory**  
CREDITS: 0

This laboratory component will support the lecture component with laboratory exercises that demonstrate the biochemical processes discussed during lecture.

Coreq: CHM 360

**CHM 361  Biochemistry II**  
CREDITS: 4

This course is a continuation of Biochemistry I. The material covered during the lecture component of the class focuses on fundamental biochemical pathways of human metabolism. Emphasis is placed on lipid metabolism, nitrogen metabolism, nucleic acid structure, and the synthesis of proteins. The material covered in the laboratory component of the course supports and complements the lecture material. In the laboratory, students are expected to conduct biochemical procedures, collect, and interpret data.

Prereq: CHM 360
Coreq: BIO 365 and CHM 361L

**CHM 361L  Biochemistry II Laboratory**  
CREDITS: 0

The material covered in this laboratory component of the course will support and complement the lecture material. The laboratory students will be expected to conduct biochemical procedures, collect and interpret data.

Prereq: CHM 360
Coreq: CHM 361

**CHM 399L  Chemistry Supervised Study III**  
CREDITS: 1

This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.

Prereq: CHM 299L

**CHM 450  Current Issues in Chemistry**  
CREDITS: 1

This course is designed to promote discussion of current chemistry topics, how those topics can be related or applied to healthcare disciplines, and potential ethical considerations. Through a format of guided discussions, current literature searches, and written surveys centered on recent chemistry findings, discoveries, or controversial issues, students enhance their understanding of the scientific method as it relates to chemistry. The course is designed to increase the student's awareness of the contributions which are being made in chemistry and applied in other areas, and to further reinforce the student's critical thinking and oral and written communication skills.

Prereq: BIO 312
CHM 499L  Chemistry Supervised Study IV  CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq:  CHM 399L

EMC 300  Principles of Critical Care Medicine  CREDITS: 3
This course introduces the student to the functions of a critical care transport team. Students gain an understanding of the special needs of critical patients during transport, and the purpose of hospital procedures. Additional areas of study include history of critical care and medevac operations, medevac safety, critical care transport orientation, communications, and crew resource management.

EMC 340  Flight Physiology & Assessment  CREDITS: 3
This course covers the intricacies of flight medicine, gas laws, barometric pressure, and specific management techniques to alleviate patient stressors during transport. The student also learns how to obtain comprehensive subjective and objective data from patients, their records, referring hospital staff, and/or pre-hospital personnel.

EMC 340L  Flight Physiology & Assessment Lab  CREDITS: 0
This course covers the intricacies of flight medicine, gas laws, barometric pressure, and specific management techniques to alleviate patient stressors during transport. The student also learns how to obtain comprehensive subjective and objective data from patients, their records, referring hospital staff, and/or pre-hospital personnel.

EMC 345  Critical Care Medicine I  CREDITS: 3
This course introduces the student to the functions of a critical care transport team. Students gain an understanding of the special needs of critical patients during transport, and the purpose of hospital procedures. Additional areas of study include history of critical care and medevac operations, medevac safety, flight physiology, critical care transport orientation, communications, and crew resource management.

EMC 350  Critical Care Pharmacology  CREDITS: 3
This course provides advanced exposure to pharmacokinetics and pharmacological interventions for conditions commonly encountered by the critical care paramedic. Students learn common medication protocols for various medical and trauma diagnoses, as well as develop critical thinking strategies to determine protocol initiation, monitoring, and discontinuance.

EMC 400  Advanced Medical Care  CREDITS: 3
This course provides advanced cognitive diagnostic and treatment skills for medical diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common diagnoses seen in critical care transport. Psychomotor skills include advanced assessment, central line placement, arterial line placement, venous cut-downs, aortic balloon pumps, ventilatory management, and other tertiary medical care procedures. (1 credit lecture, 1 credit lab)

EMC 400L  Advanced Medical Care Lab  CREDITS: 0
This course provides advanced cognitive diagnostic and treatment skills for medical diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common diagnoses seen in critical care transport. Psychomotor skills include advanced
assessment, central line placement, arterial line placement, venous cut-downs, aortic balloon pumps, ventilatory management, and other tertiary medical care procedures.

**EMC 421C  Critical Care Clinical I**  CREDITS:  2

This clinical course provides the student with approximately 100 hours of supervised patient care opportunities in critical care patient assessment, lab value recognition, advanced medication administration, surgical procedures, and extended care techniques of the critical care patient.

**EMC 422C  Critical Care Clinical**  CREDITS:  3

This clinical course provides the student with approximately 100 hours of supervised patient care opportunities in critical care patient assessment, lab value recognition, advanced medication administration, surgical procedures, and extended care techniques of the critical care patient.

**EMC 445  Critical Care Medicine II**  CREDITS:  3

This course provides advanced cognitive diagnostic and treatment skills for medical diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common medical and traumatic diagnoses seen in critical care transport.

**EMC 460  Advanced Trauma Care**  CREDITS:  3

This course provides advanced diagnostic and treatment skills for trauma diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common trauma diagnoses seen in critical care transport. Additional topics include advanced assessment, chest-tube placement, rapid sequence intubation, applied flight physiology, advanced airway management, and other tertiary trauma care procedures.

**EMC 460L  Advanced Trauma Care Lab**  CREDITS:  0

This course provides advanced diagnostic and treatment skills for trauma diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common trauma diagnoses seen in critical care transport. Additional topics include advanced assessment, chest-tube placement, rapid sequence intubation, applied flight physiology, advanced airway management, and other tertiary trauma care procedures.

**EMC 471C  Critical Care Clinical II**  CREDITS:  2

This clinical course provides the student with approximately 100 hours of supervised patient care opportunities in critical care patient assessment, lab value recognition, advanced medication administration, surgical procedures, and extended care techniques of the critical care patient. This course also includes field internship opportunities with regional critical care transport services.

**EMF 131  Fire Behavior and Combustion**  CREDITS:  3

This course explores the theories and fundamentals of how and why fires start and spread, and how they are controlled.

**EMF 205  Building Construction for Fire Protection**  CREDITS:  3

This course explores the components of building construction relating to fire, life safety, and firefighter safety. Additional content includes key elements of construction and design of structures to consider when inspecting buildings, preplanning fire operations, and operating during emergencies.

**EMF 225  Fire Protection Hydraulics/Water Supply**  CREDITS:  3

This course provides a foundation of theoretical knowledge of the principles of water use in fire protection. Applications of hydraulic principles and how to analyze and solve water supply problems are also addressed.
EMF 300  Fire Protection Systems  CREDITS: 3
This course provides the student with theoretical framework on the design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers.

EMF 305  Fire-Related Human Behavior  CREDITS: 3
This course examines how humans respond to fire and how that knowledge has been integrated into life-safety systems’ design and development. Students examine current and past research on human behavior, systems models, life-safety education, and building design to determine the interactions of these areas in emergency situations.

EMF 311  Advanced Fire Suppression  CREDITS: 4
This course provides the student with advanced knowledge and skills required for the firefighter to assume the role of team leader under the supervision of an officer or incident commander (IC). The course also includes content on handling hazardous materials incidents at the operations level.

EMF 311L  Advanced Fire Suppression Lab  CREDITS: 0
This course provides the student with advanced knowledge and skills required for the firefighter to assume the role of team leader under the supervision of an officer or incident commander (IC). The course also includes content on handling hazardous materials incidents at the operations level.

EMF 350  Fire Dynamics  CREDITS: 3
This course examines the underlying principles involved in structural fire protection system, building furnishings, and fire protection systems including water-based fire suppression systems, fire alarm and detection, special hazard suppression systems, and smoke management systems.

EMF 375  Fire Prevention Organization & Management  CREDITS: 3
This course examines factors that shape fire risk and tools for fire prevention including risk reduction education, codes and standards, inspection and plans review, fire investigation, research, master planning, various types of influences, and strategies.

EMF 390I  Fire Internship  CREDITS: 3
This course provides 150 hours of precepted time with an approved Fire-EMS agency. The course provides students with direct observation and hands-on experience as they are immersed into the work environment of an entry-level firefighter-paramedic. Students focus on engine company operations, ladder company operations, and daily station operations. Students are expected to perform daily station activities and emergency scene operation as directed by the preceptor.

EMF 410  Analytical Approaches Pub Fire Protect  CREDITS: 3
This course examines tools and techniques of rational decision making in Fire and Emergency Services agencies including data collection, statistics, probability, decision analysis, utility modeling, resource allocation, and cost-benefit analysis.

EMF 420  Applications of Fire Research  CREDITS: 3
This course examines basic principles of research and methodology for analyzing current fire-related research in the following areas: fire dynamics, fire test standards and codes, fire safety, fire modeling, structural fire safety, life safety, firefighter health and safety, automatic detection and suppression, transportation fire hazards, risk analysis and loss control, fire service applied research and new trends in fire-related research.
EMF 460  Managerial Issues of Hazard Materials  CREDITS:  3
This course presents issues in management of a department-wide hazardous materials program. It includes issues that are pertinent to officers and managers in public safety departments, encompassing regulations and requirements for hazardous materials preparedness, response, storage, transportation, handling and use, and emergency response to terrorism threat/incident. Subjects covered include local, state, and federal emergency response planning, personnel and training, and operational considerations such as determining strategic goals and tactical objectives.

EMS 100L  Introduction to Emergency Services Lab  CREDITS:  2
This course is designed to verify competency and provide continuing education for the Emergency Medical Technician according to the 2009 National Standard Curriculum.

EMS 107  Principles of Emergency Services  CREDITS:  1
This course provides an overview of the Fire and Emergency Medical Services. Topics include history, roles and responsibilities, well being, illness and injury prevention, legal aspects, and ethics. Basic organizational structure and function of public and private fire and EMS services will be explored. Basic overviews of the National Response Plan and National Incident Management System are included.

EMS 108  Principles of Emergency Services  CREDITS:  3
This course provides an overview of the fire and Emergency Medical Services. Topics include history, roles and responsibilities, well being, illness and injury prevention, legal aspects and ethics. Basic organizational structure and function of public and private fire and EMS services will be explored. Basic overviews of the National Response Plan and National Incident Management System are included.

EMS 110  Foundations Evidence-based Practice ES  CREDITS:  1
Students are introduced to the principles of evidence-based practice in the field of emergency services. Specific topics covered include: the historical deficiencies of evidence in pre-hospital care, sources of scientific knowledge, techniques for evaluating the quality of source material, levels of scientific evidence, and strategies for the translation of new knowledge and evidence into clinical practice.

EMS 113  Patient Assessment & Airway Management  CREDITS:  4
This course provides the student with the foundation to conduct a patient assessment and provide appropriate airway management. The course includes airway management, ventilation, history taking, physical examination, clinical decision making, communication, and documentation. The course format includes lecture and laboratory components.
Coreq:  EMS 113L

EMS 113L  Patient Assess/Airway Management Lab  CREDITS:  0
This course provides the student with the foundation to conduct a patient assessment and provide appropriate airway management. The course includes airway management, ventilation, history taking, physical examination, clinical decision making, communication, and documentation. The course format includes lecture and laboratory components.
Coreq:  EMS 113

EMS 140  Introduction to Pharmacology  CREDITS:  1
This course provides the foundations of pharmacology necessary for the entry-level paramedic to formulate a field impression and implement a pharmacological patient treatment plan. The course includes FDA drug classification, pharmacokinetics, pharmocodynamics, drug laws and drug administration concepts.
EMS 145  Cardiorespiratory Emergencies  CREDITS: 3
This course provides the student with the knowledge and skills to assess, form a field impression and develop a treatment plan for patients affected by medical conditions of the following conditions or pathologies: cardiac and/or a respiratory illness. This course is taught in a lecture and lab format.

EMS 145L  Cardiorespiratory Emergencies Lab  CREDITS: 0
Proposed: This course provides the student with the knowledge and skills to assess, form a field impression and develop a treatment plan for patients affected by medical conditions of the following pathologies cardiac and/or a respiratory illness. This course is in a lecture and laboratory format.

EMS 146  Cardiac Emergencies  CREDITS: 4
Students are introduced to the principles of evidence-based practice in the field of emergency services. Specific topics covered include: the historical deficiencies of evidence in pre-hospital care, sources of scientific knowledge, techniques for evaluating the quality of source material, levels of scientific evidence, and strategies for the translation of new knowledge and evidence into clinical practice.
Coreq:  EMS 146L

EMS 146L  Cardiac Emergencies Laboratory  CREDITS: 0
Students are introduced to the principles of evidence-based practice in the field of emergency services. Specific topics covered include: the historical deficiencies of evidence in pre-hospital care, sources of scientific knowledge, techniques for evaluating the quality of source material, levels of scientific evidence, and strategies for the translation of new knowledge and evidence into clinical practice.
Coreq:  EMS 146

EMS 151C  Clinical Practice I  CREDITS: 1
This clinical course provides the student with approximately 50 hours of supervised patient care experiences in areas appropriate to course work. Pass/Fail

EMS 159  Pharmacology Applications  CREDITS: 2
This course provides the student with the knowledge to formulate a field impression and implement a pharmacological management plan for the patient requiring pre-hospital care.

EMS 160C  Clinical Practice II  CREDITS: 2
This clinical course provides students with approximately 100 hours of supervised patient care experiences in areas appropriate to course work.

EMS 161I  Field Internship I  CREDITS: 1
This course provides 50 hours of precepted time with an approved advanced life support (ALS) agency. Students participate as an observer and assist the preceptor as directed. Students shadow the preceptor to begin learning the roles and responsibilities of the paramedic while on duty.

EMS 165  Medical Emergencies I  CREDITS: 3
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of the following pathologies: Neurology, Endocrinology, Gastroenterology, Allergies and Anaphylaxis, Toxicology, Renal and Urological. The course is taught in a lecture and laboratory format.
EMS 165L Medical Emergencies I Lab CREDITS: 0
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of the following pathologies: Neurology, Endocrinology, Gastroenterology, Allergies and Anaphylaxis, Toxicology, Renal and Urological. The course is taught in a lecture and laboratory format.

EMS 166 Medical Emergencies CREDITS: 4
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.

EMS 166L Medical Emergencies Lab CREDITS: 0
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.

EMS 171C Clinical Practice III CREDITS: 1
This clinical course provides students with approximately 50 hours of supervised patient care experiences in areas appropriate to course work.

EMS 210 Pre-hospital Pharmacology CREDITS: 3
This course provides the foundations of pharmacology necessary for the entry-level paramedic to formulate a field impression and implement a pharmacological patient treatment plan. The course includes FDA drug classification, pharmacokinetics, pharmacodynamics, drug laws, and drug administration concepts.

EMS 211 Pre-Hospital Pharmacology CREDITS: 4
Students are provided with the foundations of pharmacology necessary for the entry-level paramedic to formulate a field impression and implement a pharmacological patient treatment plan. The course includes FDA drug classification, pharmacokinetics, pharmacodynamics, drug laws, and drug administration concepts. This course is taught in a lecture and lab format.
Coreq: EMS 211L

EMS 211L Pre-Hospital Pharmacology Laboratory CREDITS: 0
Students are provided with the foundations of pharmacology necessary for the entry-level paramedic to formulate a field impression and implement a pharmacological patient treatment plan. The course includes FDA drug classification, pharmacokinetics, pharmacodynamics, drug laws, and drug administration concepts. This course is taught in a lecture and lab format.
Coreq: EMS 211

EMS 215 Medical Emergencies II & Special Care CREDITS: 3
This course provides the knowledge and skills needed to assess, form a Field impression, and develop a treatment plan for the patient affected by medical conditions of the following conditions or pathologies: hematology, infectious and communicable diseases, and behavioral/psychiatric disorders. Other topics include abuse and assault, chronic care, environmental emergencies, geriatrics, and patients presenting special challenges. The course is in a lecture and laboratory format.

EMS 215L Medical Emergencies II & Spec. Care Lab CREDITS: 0
This course provides the knowledge and skills needed to assess, form a Field
impression, and develop a treatment plan for the patient affected by medical conditions of the following conditions or pathologies: hematology, infectious and communicable diseases, and behavioral/psychiatric disorders. Other topics include abuse and assault, chronic care, environmental emergencies, geriatrics, and patients presenting special challenges. The course is in a lecture and laboratory format.

**EMS 230  Obstetrics & Pediatrics Emergencies**  
CREDITS: 2

This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies.

**EMS 230L  Obstetrics & Pediatrics Emergencies Lab**  
CREDITS: 0

This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies.

**EMS 231  Obstetrics/Pediatrics Emergencies**  
CREDITS: 4

Students are provided with the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies. This course is taught in a lecture and lab format.

Coreq: EMS 231L

**EMS 231L  Obstetrics/Pediatrics Emergencies Lab**  
CREDITS: 0

Students are provided with the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies. This course is taught in a lecture and lab format.

Coreq: EMS 231

**EMS 245  Introduction Emergency Services Research**  
CREDITS: 1

Students are introduced the unique characteristics of research in the emergency services profession. Students explore research problems in the clinical, systems, and education domains and will participate as a research assistant in a faculty led research project.

**EMS 254  Trauma Emergencies**  
CREDITS: 2

This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the patient affected by various trauma conditions: blunt and penetrating trauma, hemorrhage and shock, soft tissue trauma, burns, head and neck trauma, spinal, thoracic, abdominal, and musculoskeletal trauma. The course also addresses trauma systems and mechanisms of injury. The course is in a lecture and laboratory format.

**EMS 254L  Trauma Emergencies Lab**  
CREDITS: 0

This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the patient affected by various trauma conditions: blunt
and penetrating trauma, hemorrhage and shock, soft tissue trauma, burns, head and neck trauma, spinal, thoracic, abdominal, and musculoskeletal trauma. The course also addresses trauma systems and mechanisms of injury. The course is in a lecture and laboratory format.

EMS 255  Trauma Emergencies  CREDITS: 4
Students are provided with the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the patient affected by various trauma conditions: blunt and penetrating trauma, hemorrhage and shock, soft tissue trauma, burns, head and neck trauma, spinal, thoracic, abdominal, and musculoskeletal trauma. Trauma systems and mechanisms of injury are addressed. The course is in a lecture and laboratory format.
Coreq: EMS 255L

EMS 255L  Trauma Emergencies Laboratory  CREDITS: 0
Students are provided with the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the patient affected by various trauma conditions: blunt and penetrating trauma, hemorrhage and shock, soft tissue trauma, burns, head and neck trauma, spinal, thoracic, abdominal, and musculoskeletal trauma. Trauma systems and mechanisms of injury are addressed. The course is in a lecture and laboratory format.
Coreq: EMS 255

EMS 271C  Clinical Practice IV  CREDITS: 1
This clinical course provides students with approximately 50 hours of supervised patient care experiences in areas appropriate to course work.

EMS 271I  Field Internship II  CREDITS: 1
This course provides 50 hours of precepted time with an approved advanced life support (ALS) agency. Students assume the role of attendant-in-charge (AIC) on non-emergent calls. They will continue to expand their knowledge base of the AIC roles and responsibilities as they observe and assist the paramedic preceptor during emergent care situations.

EMS 272C  Clinical Practice III  CREDITS: 2
This clinical course provides students with approximately 100 hours of supervised patient care experiences in areas appropriate to course work. (Pass/Fail)

EMS 281C  Continuing Clinical & Internship I  CREDITS: 2
This clinical and internship course will provide the student with approximately 100 hours of supervised patient care experiences in areas appropriate to course work. The student's schedule will be customized individually based on the needs of the student and didactic course progression. (Pass/Fail)

EMS 301L  Emergency Operations Lab  CREDITS: 2
This course provides the student with the skills and knowledge necessary to operate an emergency vehicle and participate in a rescue operation scene.

EMS 305L  Test Prep Lab  CREDITS: 1
This course provides a review of the paramedic cognitive and psychomotor objectives. Summative written, practical, and oral examinations are included to assist in the validation of the student's competency to sit for the National Registry EMT-Paramedic Examination.
EMS 306L  National Examination Review Lab I  CREDITS:  2
This course provides a review of the paramedic cognitive and psychomotor objectives. Summative written, practical, and oral examinations are included to assist in the validation of the student's competency to sit for the National Registry EMT-Paramedic Examination.

EMS 330  Obstetrics & Pediatrics Emergencies  CREDITS:  2
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies. This course is offered in a lecture and laboratory format.

EMS 330L  Obstetrics & Pediatrics Emergencies Lab  CREDITS:  0
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies.

EMS 360  Educational Methods Emergency Services  CREDITS:  3
This course explores the various theories and applications of adult education in the practice of training, pre-professional education, and post-professional education of emergency services personnel. Critical analysis of the different methods of teaching and training emergency services professionals is accomplished through discussion, investigation, and application.

EMS 366  Medical Emergencies  CREDITS:  4
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.
Coreq: EMS 366L

EMS 366L  Medical Emergencies Lab  CREDITS:  0
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.
Coreq: EMS 366

EMS 370  Comm Risk Reduction/Emergency Services  CREDITS:  3
This course provides a theoretical framework for understanding ethical, sociological, organizational, political, and legal components of community risk reduction. Methods for the development of a comprehensive community risk reduction plan are explored.

EMS 371C  Clinical Practice V  CREDITS:  2
This clinical course provides students with approximately 100 hours of supervised patient care experiences in areas appropriate to course work.

EMS 371I  Field Internship III  CREDITS:  2
This course provides 100 hours of precepted time with an approved advanced life support (ALS) agency. Students assume the role of attendant-in-charge (AIC) on all non-emergent calls and may serve as AIC on emergency calls as deemed appropriate by the preceptor. They continue to expand their knowledge base of the AIC roles and
responsibilities as they assist the paramedic preceptor during emergent care situations.

EMS 381C Continuing Clinical/Internship Exp II  CREDITS: 2
This clinical and internship course will provide the student with approximately 100 hours of supervised patient care experiences in areas appropriate to course work. The student's schedule will be customized individually based on the needs of the student and didactic course progression. (Pass/Fail)

EMS 381I Field Internship IV  CREDITS: 5
This course provides 250 hours of precepted time with an approved advanced life support (ALS) agency and serves as the capstone field internship course. Students will be evaluated as an entry-level paramedic and serve as the attendant-in-charge (AIC) on all calls unless redirected by the preceptor.

EMS 390 Political and Legal Foundations of EMS  CREDITS: 3
This course examines the legal, political, and social issues impacting emergency services including employment, personnel, administration, operations, planning, code enforcement, and legislative and political processes.

EMS 400 Advanced Principles of Safety Survival  CREDITS: 2
This course examines Line of Duty Death (LODD) and injury data, including the history behind the development of the National Fallen Firefighters Foundation. Students review in depth the 16 Firefighter Life Safety Initiatives that have been adopted to ensure that Everyone Goes Home®.

EMS 405L National Exam Review Laboratory II  CREDITS: 1
This course provides a review of the critical care cognitive and psychomotor objectives. Summative written, practical, and oral examinations are included to assist in the validation of the student's competency to sit for the Certified Intensive Care Provider (CICP).

EMS 410 Public Administration for ES  CREDITS: 3
This course examines critical public policy and fiscal issues pertaining to emergency services at the local, state, and federal levels.

Coreq:  EMS 425

EMS 425 Personnel Management for ES  CREDITS: 3
This course examines issues in personnel administration and human resources development within the context of emergency services organizations. Topics include personnel management, organizational development, productivity, recruitment and selection, performance management systems, discipline, and collective bargaining.

Coreq:  EMS 410

EMS 430 Senior Practicum Proposal  CREDITS: 1
In this seminar course the student selects and writes a proposal for the senior practicum project.

EMS 431 Senior Practicum Proposal  CREDITS: 2
The student selects and writes a proposal for the senior practicum project.

EMS 440 Current Issues in Emerg Med Services  CREDITS: 3
This course prepares Emergency Services professionals to objectively evaluate and form an opinion on current issues pertaining to the field of emergency services, including having an understanding of emergency services related literature.
EMS 450  Disaster Planning and Control  CREDITS:  3
This course examines the principles of community risk assessment, planning, response, mitigation, and recovery for man-made and natural disasters.

EMS 480  Emergency Services Administration  CREDITS:  3
This course examines the skills and processes necessary to manage and lead an emergency services department through the challenges of the 21st century. Students develop leadership skills (persuasion, influence, budgeting, change process, problem analysis) needed to develop internal and external cooperation to create a coordinated approach for achieving the department’s mission.

EMS 490  Senior Practicum  CREDITS:  3
In this seminar course, the student integrates and synthesizes core concepts of emergency services in a management or research project. Students are supervised by an organization preceptor or faculty member.
Prereq:  EMS 430

ENG 111  Grammar & Composition I  CREDITS:  3
This course is designed to increase student awareness and aptitude in the composing process: invention, drafting, revision and editing. Included in this course are short, frequent writing assignments in various modes, prepared and extemporaneous speech opportunities, preparation of an information research paper and a review of grammar and mechanics.

ENG 112  Grammar & Composition II  CREDITS:  3
This course is a continuation of English 111. The student will continue to develop the skills of essay writing and analysis of rhetorical modes and methods and techniques of formal research learned in Grammar and Composition I. The emphasis will be on literature and the skills of critical analysis, effective and correct methods of research writing and documentation, formal critical reading and analysis. The student will carefully examine literary samples of fiction, poetry and drama. The student will understand, identify and explain how rhetorical features reflect an author's or writer's purpose, audience and subtleties of style to impact readers or audiences. A formal research paper will be written and documented.

ENG 199  Writing for Publications  CREDITS:  1
This course provides the student the opportunity to practice writing and layout skills while contributing to student publications.
Prereq:  ENG 111

ENG 201  Survey of American Literature  CREDITS:  3
This course provides a comprehensive introduction to the principle forms of fiction: short story, poetry, novel and drama, in a study of imaginative literature to include analysis of the genre and critical thinking. The literature will serve as a springboard for writing.
Prereq:  ENG 111

ENG 202  Survey of English Literature  CREDITS:  3
This course provides a comprehensive introduction to major English works from the Anglo-Saxon period to present. Ideas and characteristics of the British literary tradition are emphasized. Critical reading and writing are included.
Prereq:  ENG 111
ENG 220  Public Speaking  CREDITS:  3
This course is designed to develop the mutually dependent skills of speaking and listening in order to facilitate both formal and informal communication. Through careful preparation the student will learn self-confidence, organization and delivery of material. In addition, vocabulary and diction skills will be enhanced.

ENG 230  Business & Technical Communications  CREDITS:  3
This course is designed to teach clear, purposeful, effective writing and the forms different communications must take. Content includes attention to pre-writing considerations such as audience assessment, intent of the communication and research, as well as the mechanics of writing the draft. Among the forms considered in the course are memorandums, minutes, directions, reports and business letters.
Prereq:  ENG 111

ENG 240  Creative Writing  CREDITS:  3
Students will examine works of established writers of fiction, poetry and essay while practicing techniques designed to enhance their own creativity. In conjunction, daily journal exercises will serve as a reflective tool. Group discussion and peer editing will facilitate learning. Each individual will design and complete a project in poetry, essay or fiction, or a combination of these genres.
Prereq:  ENG 112

ENG 301  Women's Studies in Literature/Culture  CREDITS:  3
Using a broadly feminist theoretical framework, this course examines historical and contemporary texts (books, film, speeches, poetry, articles, etc.) that represent women's studies in literature and culture.
Prereq:  ENG 112

ENG 315  Healthcare and The Media  CREDITS:  3
Students are introduced to the current venues, principles and practices of journalism, and their interface with healthcare professionals.
Prereq:  ENG 112

ENG 325  Communication in Professional Practice  CREDITS:  3
This course stresses the principles of communication, including oral, non-verbal and written strategies important in the healthcare arena. The course is structured to provide the student with the opportunity to develop skills in these areas. Emphasis is placed on professional writing, oral presentations, and refined literature search methods. All writings and supporting documentation follow the format of the American Psychological Association (APA).
Prereq:  ENG 112

ENG 340  PTSD in The History of Literature  CREDITS:  3
Using a broadly humanistic theoretical framework, students examine historical and contemporary texts (books, film, speeches, poetry, plays, literary criticism, op-ed, etc.) that offer cultural representations of and context for PTSD.
Prereq:  ENG 112

ETHC 510  Advanced Bioethics  CREDITS:  3
Foundational theories, concepts, and principles of bioethics are analyzed and evaluated. Topics include patient/client autonomy, confidentiality, decision-making, quality of life,
and the allocation of healthcare/biomedical resources.

**ETHC 520  Bioethics in Organizational Leadership**  
**CREDITS:** 3  
Theories, principles, and methods of bioethics are applied to organizational contexts such as health systems, biomedical/biotechnical businesses, and institutional research settings.  
Prereq: ETHC 510

**ETHC 630  Emerging Trends Bioethics**  
**CREDITS:** 3  
This course introduces students to ethical theory and methods of moral reasoning as tools for analyzing bioethical problems of the twenty first century that arise from emerging medical technology and changes to law and health policy. The bioethical issues will vary to reflect current events and debates. Examples include the impact of the Patient Protection and Affordable Care Act on rural health and human service delivery, the efficacy and safety of telemedicine and telecounseling, and the ethical implications of new advances in genetic medicine. Through these analyses Health and Social Services professionals and other students will develop their ability to both directly provide and allow effective health care ethics consultations in specific cases.

**ETHC 640  Cultural Prospectives in Bioethics**  
**CREDITS:** 3  
This course is typically conducted in a hybrid format. It introduces students to a set of interdisciplinary issues concerning intra- and inter-cultural value and perspectival differences, including their impact on healthcare treatment decisions and/or end of life issues. This “set of interdisciplinary issues” will vary. Examples are: the impact of religious and holistic healing practices on the medical profession; the worlds of injured and PTSD-suffering veterans and their care; visual and performing arts in healthcare. Medical and Social Services professionals will develop useful understandings concerning these differences that enhance their ability to both directly provide and administratively allow effective health care ethics consultations in specific cases.

**FOR 300  Introduction to Forensic Science**  
**CREDITS:** 3  
An introduction to the various fields in forensic science and the evaluation of different types of physical evidence used in criminal investigations are presented. The laboratory component includes the demonstration of proper techniques for collecting evidence and the examination and analysis of physical evidence used in criminal investigations.  
Coreq: FOR 300L

**FOR 300L  Introduction Forensic Science Laboratory**  
**CREDITS:** 0  
An introduction to the various fields in forensic science and the evaluation of different types of physical evidence used in criminal investigations are presented. The laboratory component includes the demonstration of proper techniques for collecting evidence and the examination and analysis of physical evidence used in criminal investigations.  
Coreq: FOR 300

**FOR 310  Crime Scene Investigation**  
**CREDITS:** 3  
A hands-on approach to crime scene investigation methodologies, and tactics is provided. Emphasis is placed on evidence identification, documentation, collection, and chain of custody from the crime scene through trial.

**FOR 320  Introduction to Courts and Criminal Law**  
**CREDITS:** 3  
This course familiarizes the student with the functions, structure, and organization of the agencies that are responsible for the administration of justice. Specifically, the course introduces students to the institutions and processes of law making with emphasis on
criminal law and procedures, constitutional guarantees, the judicial system, and the process of enforcing laws.

**FOR 410  Special Topics in Forensic Science  CREDITS: 3**

Students study special topics in forensic science. Topics may include arson investigation, physical and blood spatter patterns, forensic psychology, criminal profiling, and other topics based upon student needs and interests. This course is repeatable.

Prereq: FOR 300

**GEN 100  Academic Seminar  CREDITS: 1**

This course details specific classroom and individual study skills, appropriate for use at the college level, including ethical decision making, critical thinking, engagement with College resources, project management, self-reflection, and writing and communication. Students use individual assessment to design personal objectives. Students examine problem solving, relationship issues, conflict management and resolution, and self-management skills.

**GEN 101  Freshman Seminar  CREDITS: 3**

In this course, students learn proven strategies for creating greater academic, professional, and personal success. In keeping with the developmental focus of the course, students are expected to adopt techniques for improving writing and critical thinking skills, library research methods, and personal self-management.

**GEN 102  Stress Management for Students  CREDITS: 1**

This course is a lecture course designed to identify specific areas of stress and provide the student with functional skills needed to improve his/her stress management. Course will be graded pass/fail.

**HA 510  Foundations of Healthcare Administration  CREDITS: 3**

Students gain an understanding of health services organizations and delivery systems in the United States. Key contextual and environmental factors affecting the practice of healthcare administration within a variety of settings are examined. Current regulatory and legislative issues impacting healthcare delivery are emphasized.

Coreq: HA 530

**HA 520  Advanced Health Information Systems  CREDITS: 3**

The importance of information systems and information technology in improving decision-making in healthcare organizations is addressed. The student develops expertise in data management and analysis used by healthcare organizations in decision support used to improve and better coordinate patient care, allow for better management of medical records, improve cost controls, and enhance supply inventory and management.

**HA 530  Organizational Theories & Leadership  CREDITS: 3**

An overview of structures and behaviors unique to healthcare organizations that impact organizational performance is examined. The theory and practice of leading and managing individuals and groups, through motivation, communications, teamwork, leadership styles, power, organizational change, coalition building, negotiation, and conflict management/resolution are considered.

Coreq: HA 510

**HA 540  Human Resources Administration  CREDITS: 3**

Strategic human resource management within healthcare organizations is examined. Key roles of human resource personnel pertaining to organizational performance are
assessed in terms of controlling costs, improving quality, and providing excellent customer service. Theoretical and empirical evidence is evaluated in relation to the administrative and strategic activities within human resource management, including legal and ethical considerations.

Prereq: HA 510

HA 550  Research Methods and Analysis  CREDITS: 3
Students gain an understanding of research methods for collecting, analyzing, and interpreting healthcare data for the application of these methods in healthcare organizations. Students distinguish between types of research (quantitative and qualitative) with an emphasis on quantitative analysis in healthcare organizations. The student develops statistical skills applicable to understanding research and decision making processes used in organizational planning and policy development.

Prereq: HA 550

HA 560  Advanced Financial Management Healthcare  CREDITS: 3
Theory, concepts, and techniques used in accounting and finance functions of healthcare organizations are examined. Students gain an understanding of the significance of finance in healthcare organizations and learn various techniques to develop, manage, and control finances. Students learn to develop, apply, and interpret various financial tools as part of the managerial decision-making process.

Prereq: HA 510

HA 565  Information Systems Life Cycle  CREDITS: 3
The processes of selection and implementation of an information system within a healthcare facility are addressed. Students investigate and evaluate the phases of the life cycle: planning, analysis, design, implementation and evaluation.

Prereq: HA 510 and HA 520

HA 610  Legal Issues Affecting Healthcare Organization  CREDITS: 3
The foundations of our legal system as they pertain to healthcare organizations and the delivery of services are addressed. Students gain an understanding of key federal and state regulations, including tort and contract law. Legal and ethical issues related to fraud and abuse, risk management, and organizational governance are examined.

Prereq: HA 510

HA 620  Strategic Healthcare Economics & Policy  CREDITS: 3
The application of health policy and economic principles to healthcare administrative decision-making is examined. Students gain knowledge of the process for policy development and implementation. Key health policy initiatives related to cost, quality, and access are explored. Students examine how economic principles, such as supply, demand, and the determination of market price impact strategic planning for healthcare organizations.

Prereq: HA 510

HA 630  Seminar In Healthcare Administration  CREDITS: 3
Contemporary issues in healthcare management are examined. Current trends in healthcare are analyzed, as well as other topics of special interest.

Prereq: HA 510
HA 640  Operations and Performance Management  CREDITS:  3
Factors that affect performance outcomes within healthcare organizations are explored. Students examine operational assessment, patient care and support-care processes, and system perspectives as they relate to delivery of services. Students use case-based analysis to examine problems and improvement opportunities using analytical techniques and decision support systems.
Prereq: HA 550

HA 650  Quality Assessment & Improvement  CREDITS:  3
Principles and tools needed to integrate quality assessment into management decision-making processes are examined. Students gain an understanding of quality and performance measurement theory and methodology needed to improve organizational processes and outcomes.
Prereq: HA 550

HA 660  Strategic Leadership & Marketing  CREDITS:  3
Marketing and strategic planning in healthcare is the focus of this course. The need for an organized approach that ties strategy to quantifiable objectives and a defined market position is examined. The importance of aligning market issues and needs to the achievement of the strategic plan is addressed.
Prereq: HA 510

HA 665  Healthcare Informatics  CREDITS:  3
Databases, systems operations, and information systems are examined as they apply to healthcare informatics.
Prereq: HA 565

HA 667  Decision Supp Systs Healthcare Orgs  CREDITS:  3
The application of principles and techniques of decision support systems in healthcare is examined. Emphasis is placed on evidence-based practice and the design, evaluation, and application of clinical and managerial decision support systems.
Prereq: HA 565

HA 670  Practicum  CREDITS:  3
The practicum provides an opportunity to apply acquired knowledge and skills and further develop key professional competencies. Experiences are aligned with student academic and professional goals. The practicum consists of a minimum of 120 hours of fieldwork, a project applicable to the host site and scheduled online seminars. The student works under the collaborative guidance of a qualified preceptor within the host organization and a faculty advisor. Students may enroll in this course during the last semester of study leading to graduation.

HCM 300  US Healthcare System  CREDITS:  3
Students receive a practical and conceptual picture of the organization, financing, and delivery of healthcare services. Additionally, policy changes at the state and national levels will be examined to assess their effects on individuals and organizations.

HCM 302  Healthcare Management  CREDITS:  4
Students develop personal, interpersonal, and organizational communication skills that promote effective management and leadership. Evidence-based management practices are analyzed and a variety of hands-on assessments and exercises are used to help students develop effective interpersonal and organizational communications.
HCM 308  Healthcare Economics and Policy  CREDITS:  3
Students receive a global view of post-acute care while examining care and services offered to the aging population. Analysis of the differing operations of each type of organizations are included. Mental health, substance abuse, rehabilitation, and selected specialty services are examined. Focus is placed on interdisciplinary communication and safe transition planning to meet the patient’s holistic well-being.
Prereq:  HCM 302

HCM 325  Health Information Systems  CREDITS:  3
Students explore the role of the healthcare manager in relation to information technology in the healthcare setting, and how computers enhance healthcare practice. Health information exchanges, data standards, health informatics ethics, online resources, and E-search are examined.

HCM 330  Human Resources Management in Healthcare  CREDITS:  4
This course explores the principles and practices of effectively managing people. An overview of the key issues that affect healthcare workforce planning and performance management will be examined and analyzed. An emphasis will be placed on practical techniques and tools to effectively implement human resources practices, as well as an examination of beliefs and traditions that impede implementation of sound human resources management.

HCM 350  Healthcare Management Internship  CREDITS:  3
Off campus, pre-professional, experiential learning relating to principles of healthcare management are provided. Students complete a minimum of 120 hours of supervised observation/activity within approved healthcare facilities or other health-related organizations.
Prereq:  HCM 330

HCM 375  Issues in Community Health  CREDITS:  4
Students receive a global view of post-acute care while examining care and services offered to the aging population. Analysis of the differing operations of each type of organizations are included. Mental health, substance abuse, rehabilitation, and selected specialty services are examined. Focus is placed on interdisciplinary communication and safe transition planning to meet the patient’s holistic well-being.
Prereq:  ENG 112

HCM 380  Healthcare Economics and Policy  CREDITS:  3
Students develop conceptual and analytical skills in the application of economic principles to the organization and delivery of healthcare services. Economic theory is applied to the supply and demand of healthcare, health insurance, payment mechanisms, and market structure. Economic measures are used to analyze the costs/benefits of healthcare systems. Students gain a deeper understanding of state, federal, and local governments’ roles in healthcare.
Prereq:  HCM 302

HCM 390  Medical Practice Management Internship  CREDITS:  3
Off campus, pre-professional, experiential learning relating to principles of healthcare management are provided. Students complete a minimum of 120 hours of supervised observation/activity within approved medical practice management facilities.
Prereq:  HCM 330
HCM 411  Healthcare Quality Management  CREDITS:  4
Students are introduced to methods used to improve healthcare processes, delivery, and outcomes. Specific focus is on analyzing cycle times, measuring productivity, streamlining process flow, and tracking outcomes and performance metrics, while improving health management process outcomes.
Prereq:  HCM 442

HCM 420  Legal & Ethical Issues in Healthcare  CREDITS:  4
Students are introduced to methods used to improve healthcare processes, delivery, and outcomes. Specific focus is on analyzing cycle times, measuring productivity, streamlining process flow, and tracking outcomes and performance metrics, while improving health management process outcomes.

HCM 430  Managerial Communications  CREDITS:  3
Students examine the roles of communication networks and strategies in managerial decision making. There is an emphasis on the role of communication skills in managing change, organizational conflict, coaching, appraisal, and corporate cultures. Cases are used to analyze and address specific management problems.

HCM 442  Healthcare Revenue, Expense & Reimbursement  CREDITS:  4
Students are provided with basic healthcare accounting principles needed to read, analyze, understand, and use financial statements and budgets. Focus is on the complex financial issues facing healthcare organizations as they formulate strategic plans, while anticipating incoming revenue, budgeting for expenses, and collecting reimbursements from payers.
Prereq:  HCM 380

HCM 460  Healthcare Operations Management  CREDITS:  3
Focus is on operations management and the strategic implementation of programs, techniques, and tools for reducing costs, improving financial performance, and improving quality. Students explore how operations and process improvement relate to contemporary healthcare trends, such as evidence-based medicine and pay-for-performance.
Prereq:  HCM 442

HCM 485  HC Strategic Management & Marketing  CREDITS:  4
As the capstone course for the HCM program, the purpose of this course is to integrate theories, principles and practices of health management and policy with practical situations and problems. Students will work in teams to develop strategic plans.
Prereq:  HCM 442

HCM 490  Organizational Development/Leadership  CREDITS:  4
Focus is on operations management and the strategic implementation of programs, techniques, and tools for reducing costs, improving financial performance, and improving quality. Students explore how operations and process improvement relate to contemporary healthcare trends, such as evidence-based medicine and pay-for-performance.
Prereq:  HCM 330 and HCM 430

HCM 491  Long-Term Care Internship  CREDITS:  8
Students are provided with pre-professional experiential learning. The preceptor ensures hours are obtained in the required domains of practice. Projects are approved by HCM
faculty and supervised by the preceptor onsite. Completion of the required hours will allow examination for board licensure as a Nursing Home Administrator.

Prereq: HCM 375

**HCM 492   Long-Term Care Internship II**  
CREDITS: 4

Students are provided with pre-professional experiential learning. The preceptor ensures hours are obtained in the required domains of practice. Projects are approved by HCM faculty and supervised by the preceptor onsite. Completion of the required hours will allow examination for board licensure as a Nursing Home Administrator.

Prereq: HCM 375

**HCM 493   Long-Term Care Internship III**  
CREDITS: 4

Students are provided with pre-professional experiential learning. The preceptor ensures hours are obtained in the required domains of practice. Projects are approved by HCM faculty and supervised by the preceptor onsite. Completion of the required hours will allow examination for board licensure as a Nursing Home Administrator.

Prereq: HCM 375

**HCM 494   Long-Term Care Internship IV**  
CREDITS: 2

Students are provided with pre-professional experiential learning. The preceptor ensures hours are obtained in the required domains of practice. Projects are approved by HCM faculty and supervised by the preceptor onsite. Completion of the required hours will allow examination for board licensure as a Nursing Home Administrator.

Prereq: HCM 375

**HCM 495   Long-Term Care Internship V**  
CREDITS: 2

Students are provided with pre-professional experiential learning. The preceptor ensures hours are obtained in the required domains of practice. Projects are approved by HCM faculty and supervised by the preceptor onsite. Completion of the required hours will allow examination for board licensure as a Nursing Home Administrator.

Prereq: HCM 375

**HES 201   Foundation Health and Exercise Science**  
CREDITS: 1

This course facilitates a general understanding of health and exercise science (HES) as a field of study. Students are introduced to the history and origins of the academic discipline, current trends in the field, and future directions for research and practice. Physical activity, structured exercise, and health-related fitness behaviors and programs are discussed applying a social ecological framework across individual, group, organization, community, and policy levels. Students develop their portfolio framework.

**HES 221   Group Exercise Activities**  
CREDITS: 1

Course content is designed to provide focused instruction and opportunities for sound application including, but not limited to, the following modes of group exercise class activities: high/low impact, step training, studio cycling, water aerobics, body pump, and cardio kickboxing. Each topic will be covered in detail with respect to physiological and biomechanical principles, class organization, choreography, safety, and modifications for involvement of individuals with varying abilities, including current trends and research in the areas of group exercise.

**HES 222   Muscle Fitness Activities**  
CREDITS: 1

Course content is designed to provide focused instruction and opportunities for sound application including, but not limited to, the following modes of group exercise class
activities: high/low impact, step training, studio cycling, water aerobics, body pump, and cardio kickboxing. Each topic will be covered in detail with respect to physiological and biomechanical principles, class organization, choreography, safety, and modifications for involvement of individuals with varying abilities, including current trends and research in the areas of group exercise.

Prereq: HES 221

HES 223 Group Exercise Activities CREDITS: 2
Students learn about physiological and biomechanical principles, class organization, choreography, safety, and modifications for involvement of individuals with varying abilities. Current trends and research in the areas of group exercise for a variety of formats are covered. Students apply their knowledge by developing a group exercise class plan. This course is taught in a lecture/lab format.

Coreq: HES 223L

HES 223L Group Exercise Activities Laboratory CREDITS: 0
Students learn about physiological and biomechanical principles, class organization, choreography, safety, and modifications for involvement of individuals with varying abilities. Current trends and research in the areas of group exercise for a variety of formats are covered. Students apply their knowledge by developing a group exercise class plan. This course is taught in a lecture/lab format.

Coreq: HES 223

HES 224 Muscle Fitness Activities CREDITS: 2
Students receive instruction on resistance training principles and program development. Special emphasis is placed on the physiological/biomechanical principles, training guidelines, and safety procedures in developing and administering programs in muscular fitness, core strength, and balance for populations with varying abilities. Students experience a variety of resistance training modalities and apply their knowledge in development and instruction of a resistance training program. This course is taught in a lecture/lab format.

Prereq: HES 223

Coreq: HES 224L

HES 224L Muscle Fitness Activities Laboratory CREDITS: 0
Students receive instruction on resistance training principles and program development. Special emphasis is placed on the physiological/biomechanical principles, training guidelines, and safety procedures in developing and administering programs in muscular fitness, core strength, and balance for populations with varying abilities. Students experience a variety of resistance training modalities and apply their knowledge in development and instruction of a resistance training program. This course is taught in a lecture/lab format.

Coreq: HES 224

HES 272 Injury Prevention/Post-Rehabilitative Ex CREDITS: 2
This course includes approaches involved in preventing common injuries that occur within the active population and concepts of post-rehabilitative exercise. Topics include risk management and safety within an exercise environment and post-rehabilitation principles for common injuries and illnesses. Emphasis is placed on prevention and recognition of and post-rehabilitative exercise recommendations for the injuries and illnesses most common in non-clinical exercise environments.
HES 302  Exercise Physiology  CREDITS:  4
Course encompasses the acute physiological responses and chronic adaptations of the human body to exercise. Included in the context of this course are the neuromuscular, metabolic, cardiovascular, hormonal, and respiratory systems as they relate to the basic science of human movement and clinical applications. Methodology, procedures, quantification and measurement issues are emphasized in the laboratory component.
Prereq: BIO 212
Coreq: HES 302L

HES 302L  Exercise Physiology Lab  CREDITS:  0
Course encompasses the acute physiological responses and chronic adaptations of the human body to exercise. Included in the context of this course are the neuromuscular, metabolic, cardiovascular, hormonal, and respiratory systems as they relate to the basic science of human movement and clinical applications. Methodology, procedures, quantification and measurement issues are emphasized in the laboratory component.
Coreq: HES 302

HES 311C  Clinical I  CREDITS:  2
This clinical experience provides students with an opportunity to gain entry-level experience in commercial exercise science settings. Students complete a minimum of 100 hours of supervised clinical experience in a fitness center environment that includes land- and water-based group and individual exercise protocols for apparently healthy individuals of various ages and abilities. This rotation includes working with individuals of varying ages and abilities on health fitness tasks as well as with site supervisor and staff on various aspects of fitness center operations. (Pass/Fail)
Prereq: BIO 212 and HES 201

HES 312C  Clinical II  CREDITS:  2
Students are provided with an opportunity to apply the knowledge and skills learned in the classroom to a practical experience in a medically-directed, clinical setting. Students complete a minimum of 100 hours of supervised clinical experience that includes structured and rehabilitative exercise for populations of various ages and abilities with known disease and/or injuries. Experiences are documented in the students’ portfolios demonstrating entry-level knowledge, skills, and abilities in clinical settings. (Pass/Fail)
Prereq: HES 311C

HES 323  Concepts Strength and Conditioning  CREDITS:  3
Advanced study of scientific principles and theories related to strength and conditioning for varying populations. Discussions relative to concepts and applications in the exercise sciences, testing and evaluation, program design, implementation, and evaluation, strength and conditioning, facility organization and administration, as well as safety techniques are emphasized.
Prereq: BIO 212

HES 334  Kinesiology  CREDITS:  3
This course is designed to provide the student with an understanding of human movement and how developmental and pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis, and gait analysis. The student is prepared to identify the various phases of motion and explain the mechanical significance of each in producing the desired
HES 334L  Kinesiology Lab  CREDITS:  0
This course is designed to provide the student with an understanding of human movement and how developmental and pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis, and gait analysis. The student is prepared to identify the various phases of motion and explain the mechanical significance of each in producing the desired outcome.
Coreq:  HES 334

HES 345  Exercise Testing and Prescription  CREDITS:  3
This course focuses on the various procedures and protocols for testing and measuring components of fitness associated with optimal health - cardiorespiratory fitness, muscular fitness, flexibility, and body composition. Students will explore the associations among physical activity, health, and hypokinetic diseases; health screening and risk classification; principles of measurement, assessment, test administration and exercise prescription; various clinical and field-based test modes and protocols for determining levels of health fitness. Students will also practice exercise prescription specific to test outcomes.
Prereq:  HES 302
Coreq:  HES 345L

HES 345L  Exercise Testing and Prescription Lab  CREDITS:  0
This course focuses on the various procedures and protocols for testing and measuring components of fitness associated with optimal health - cardiorespiratory fitness, muscular fitness, flexibility, and body composition. Students will explore the associations among physical activity, health, and hypokinetic diseases; health screening and risk classification; principles of measurement, assessment, test administration and exercise prescription; various clinical and field-based test modes and protocols for determining levels of health fitness. Students will also practice exercise prescription specific to test outcomes.
Coreq:  HES 345

HES 365  Psychosocial Aspects of Exercise  CREDITS:  3
Students examine content and methods of inquiry from psychology and sociology to issues related to physical activity and exercise behaviors. Students focus on the psychosocial factors related to participants and their motivated behaviors, including adoption, adherence, and compliance, in leisure physical activity and exercise. Students gain comprehension of physical activity environments, group processes for enhancing participants’ health and well being, applications of theories for enhancing client psychosocial development, and physical activity behaviors for individuals with diverse cultural identities.
Prereq:  PSY 101

HES 375  Research Methods Health & Exercise Science  CREDITS:  3
This course provides the students with a directed research experience. Students will work as members of the research team to design, write, propose, implement and present a study. Activities include the Internal Review Board (IRB) process, development of a
research question, a literature review strategy and methodology to be employed, data collection, analyses, interpretation and conclusions, and oral and written presentations of findings.

Prereq: (MTH 210 or MTH 301) and HES 345

**HES 411C  Clinical III**  
**CREDITS:** 2  
Students gain experience in health fitness or worksite program site under the direct supervision of a clinical instructor. All aspects of health fitness management, including assessment, programming, and facility administration are practiced. Students complete a minimum of 100 hours of supervised clinical applications, further develop requisite knowledge, skills, and abilities of an entry-level practitioner. (Pass/Fail)

Prereq: HES 312C

**HES 413C  Clinical IV**  
**CREDITS:** 4  
This capstone clinical placement is designed as a selected, structured clinical experience specific to the last semester of enrollment in the Health and Exercise Science (HES) program. Case study methodology, including theory and application, measurement and evaluation, and HES program strategies and outcomes are applied in the development of knowledge, skills, and abilities in a clinical placement specific to the post-baccalaureate goals of the learner. Students complete a minimum of 200 hours of supervised clinical experience, write and present a case study project documenting knowledge, skills, and abilities. (Pass/Fail)

Prereq: HES 411C

**HES 422  Organization & Administration in HES**  
**CREDITS:** 3  
Students examine the various issues, policies, and procedures that influence the administration of health and exercise science across various settings, including clinical, corporate, commercial, and community. Topics include facility organization and design; legal liability issues; personnel management; equipment budgeting, purchasing, and maintenance; confidentiality, record keeping, and billing; health insurance and healthcare services; ethical standards and scope of practice; consulting, counseling and coaching, professional organizations and certifications; needs assessment evaluation approaches; promotion, advocacy, and public relations.

Prereq: HES 201

**HES 426C  Professional Fieldwork in HES**  
**CREDITS:** 2  
This course is designed to provide the student with the opportunity for a variety of applied health and exercise experiences in different settings. This professional field experience offers a challenge to students by testing their potential and interest in selected areas in the field of Health and Exercise Science.

Prereq: HES 311C and HES 312C

**HES 427C  Scholarly Fieldwork in HES**  
**CREDITS:** 2  
Students are provided an opportunity for an applied research experience in health and exercise science under the direction of HES research faculty. The directed research experience offers a challenge to the senior-level student and tests potential and interest in scholarly activity in the field of health and exercise science.

Prereq: IDS 253

**HES 445  Program Devel Aging & Spec Populations**  
**CREDITS:** 3  
This course examines, in detail, the changes that transpire during exercise, both acute and chronic, as it influences the elderly and other individuals with special medical
considerations. The student will develop exercise programs based on evaluation of the results.

Prereq: HES 345

**HES 452 Community Hlt & Physical Activity Promo**  CREDITS: 3

Students examine the practical applications of principles concerning community health and physical activity promotion. A history of community health organizations and activities is presented as well as the organization and responsibilities of community health agencies currently operating nationally and locally. Planning and evaluation frameworks, needs assessment approaches, and public health models will be covered. Current issues impacting community health and physical activity are targeted. Emphasis is on debate of controversial issues.

Prereq: IDS 253

**HES 485 Professional Seminar in HES**  CREDITS: 3

Students are presented with an extensive overview of Health and Exercise Science as a profession and are provided an opportunity to complete their HES electronic portfolio for final presentation. Verbal and non-verbal communication skills, including resume writing, job interviewing, and professional presentations, professional goals and objectives, career opportunities, and graduate school selection are included. Major issues, future trends, and special topics in contemporary Health and Exercise Science are explored.

Prereq: HES 422

**HIS 101 World History to 1650**  CREDITS: 3

The student is introduced to world history from pre-civilization to the early modern era (1650). Topics will include the cradles of civilization, the ancient Greco-Roman world, the medieval and Byzantine eras, the Renaissance, Asian and African cultures, and the birth of modernity.

**HIS 102 World History Since 1650**  CREDITS: 3

The student is introduced to world history from the early modern era (1650) to the present. Topics will include the Age of Enlightenment, the era of global empires, the world wars, the Cold War, modern Asian and African cultures, and the arrival of the post-modern era.

**HLT 111 Personal Health**  CREDITS: 3

This course introduces the concepts of personal health, including the health-illness continuum, fitness, stress management, nutrition, sexuality, substance abuse and safety with an emphasis on personal responsibility for health. The student will design and implement a balanced nutrition plan and a personal, safe, aerobic fitness plan.

**HLT 215 Medical Terminology**  CREDITS: 3

Medical terms, root words (prefixes, suffixes and combing forms) and commonly used scientific/medical abbreviations are introduced and analyzed in this course. This is accomplished using different body systems and specialized areas of medicine and terms associated with the system. Root words are also analyzed for change of meanings, which occur when the parts are connected to form whole words. Special emphasis is placed on the terms associated with common disease states important to the healthcare provider.

**HLT 301 Nutrition**  CREDITS: 3

This course explores major concepts of nutrition and health. Characteristics of adequate and inadequate nutrition, essential nutrients, and nutritional needs across the lifespan are discussed. Dietary modifications for therapeutic purposes and cultural variations are
Included. Students who are licensed RNs may challenge this course using the NLN Challenge Exam.

**HLT 350  Medical Nutrition Therapy  CREDITS: 3**

In this course the student explores the connection between nutrition and specific disease states, focusing on the clinical nutrition management of patients with established disease. Current research will be utilized in the study of disease states that effect nutrition status and require the use of specialized nutrition (modified diets and/or nutrition support) as adjunct therapy to other medical, surgical, and pharmacological therapy. Understanding of the affect that each disease or altered health state has on nutrition requires basic knowledge of normal physiology, nutritional requirements, metabolism, digestion, and absorption.

Prereq: HLT 301

**HPE 104  Therapeutic Massage I  CREDITS: 1**

This course is an introduction to the area of therapeutic massage. Topics of instruction will include general principles of therapeutic massage and basic techniques used in massage. Consideration of massage for specific purposes and specialized systems of massage will be discussed.

Prereq: HPE 104

**HPE 105  Therapeutic Massage II  CREDITS: 1**

This course is designed for students who have completed HPE 104 and would like to increase their knowledge of massage theory and skills for specific types of massage. Emphasis will be on the development of skills for Esalen, Sports and Deep Tissue Massage.

Prereq: HPE 104

**HPE 106  Therapeutic Massage III  CREDITS: 1**

This course will provide students information and skills in Massage Therapy techniques for special populations, including but not limited to, pregnancy, medically fragile, hospital-based clients, and specific orthopedic conditions.

Prereq: HPE 105

**HPE 122  Mindfulness and Yoga  CREDITS: 2**

This course introduces students to the concept of Yoga utilizing ancient complimentary techniques toward better health through mindfulness. The primary focus of the course is to develop an awareness of the body, mind and spirit as the student experiences simple, yet profound movement, relaxation, breathing practices, concentration, and meditation. Mindfulness practices include continued and expanded focus on body sensations through the practices of yoga techniques to facilitate the development of concentration and relaxation.

**HPE 131  Physical Fitness & Wellness I  CREDITS: 1**

This course is designed to promote positive lifestyles through the concept of wellness. The wellness topics presented include the benefits of wellness, stress management, fitness, weight management, substance abuse and sexually transmitted diseases. At the conclusion of the class, the student will compare his/her lifestyle habits existing at the beginning and at the end of the course. The student will affirm positive changes and identify areas of improvement for the future. Pass/Fail.

**HPE 136  Running for Fitness  CREDITS: 1**

This course will introduce both the novice and experienced runner to the methods and considerations necessary for continued improvement of running. There will be lecture
and analysis of proper running and training techniques. Students will keep an accurate training log as part of the grade and will run and workout outside of class time.

**HPE 221 Aerobic Exercise Skills**  
CREDITS: 1  
This course is designed to provide focused instruction and opportunities aimed at the development of the cardiovascular system. Individual and group cardiovascular activities will consist of high/low impact, step, slide, water aerobics and cardio kick boxing. The merit of cardiovascular fitness as a lifetime physical fitness objective is highlighted.

**HPE 222L Resistance Training Skills**  
CREDITS: 1  
This course is designed to provide focused instruction and opportunities aimed at the development of muscular strength and endurance. Individual and group strength training activities including, but not limited to, weight training, Pilates, and core strengthening activities. The merit of muscular strength and endurance as a lifetime physical fitness objective is highlighted.

**HSC 200 Issues in Community Health**  
CREDITS: 3  
Students focus on the history and current status of community health, as well as the determinants of health in populations. The social, political, economic, and biomedical aspects of health and illness and key health issues facing communities today will be explored.

**HSC 221 Concepts of Disease**  
CREDITS: 3  
This lecture course is designed to consider some of the basic characteristics of disease states in the human. Emphasis is placed on basic pathophysiologic principles and common mechanisms of disease. Representative disease states are addressed for all of the human systems. Consideration is given to diseases common in adults and children. Causation, symptoms and treatments are emphasized.

**HSC 300 Foundations in Healthcare Research**  
CREDITS: 3  
Students focus on the foundations of healthcare research methodologies, including research designs, data collection, health analytics, data mining, and ethics. Students are introduced to basic research techniques that can be applied to healthcare management.  
Prereq: MTH 130 or MTH 165 or MTH 170 or MTH 201

**HSC 373 Chronic Disease Management**  
CREDITS: 3  
This course, focused on adult health, provides an introduction to the history of disease management, identifies key concepts of chronic disease management and explores chronic disease management models.  
Prereq: BIO 212 or BIO 240

**HSC 450 Global Health Issues**  
CREDITS: 3  
This course is intended to provide an interdisciplinary qualitative and quantitative review of global health issues. It will focus on cultural variations in healthcare delivery. It will provide a broad survey of the main facts, issues, perspectives, methods, results and conclusions in the area of global populations and health. It will address some of the unique qualities of ethnomedicine, variations in socioeconomic status and the impact of societal variation on contemporary issues affecting global health. The course will provide an opportunity for students to engage in discussions of comparative regional health issues that impact healthcare delivery. The course will facilitate the student’s ability to explain the significant role healthcare plays in the global community.

**HSC 455 Marketing and Public Relations Healthcare**  
CREDITS: 3  
Students focus on effective, ethical, and professional marketing and public relations
methods for healthcare and community health organizations. Students will acquire knowledge about the history of marketing and public relations and gain skills in market/audience research and analysis, campaign development, image and text design, media relations, crisis management, and communication ethics. Students will learn to develop market surveys, write news releases, produce public service announcements, conduct news conferences, and design web pages.

**HSC 485  Health Sciences Capstone Project I  CREDITS: 3**

This capstone course is part of the culminating experience for the BSHS major. Health science concepts and applications are integrated through systematic examination of a selected issue or problem in the work setting. Students complete a comprehensive work that includes a focused problem/issue statement, situational analysis, study design, and action plan. This course is the first part of a year-long project.

Prereq:  IDS 453

**HSC 486  Health Sciences Capstone Project II  CREDITS: 3**

This capstone course is the culminating experience for the BSHS major. Health science concepts and applications are integrated through systematic examination of a selected issue or problem in the work setting. Students complete a comprehensive work that includes a focused problem/issue statement, situational analysis, study design, and an action plan. This course is the second part of a year-long project.

Prereq:  HSC 485

**HSC 490  Service Learning Community Health I  CREDITS: 3**

This course involves students in activities that address community-identified health needs while developing academic and critical thinking skills and commitment to community service. A community partnership is established that focuses on improving the health of citizens. Health science concepts and applications are integrated through systematic examination of an identified need within the community health organization. Students complete a comprehensive body of work that may include a needs assessment, situational analysis, and/or development of an action plan to address the community health problem. This course is the first of a two part series in service learning for Health Science majors.

Prereq:  IDS 453

**HSC 491  Service Learning in Community Health II  CREDITS: 3**

This course involves students in activities that address community-identified health needs while developing academic and critical thinking skills and commitment to community service. A community partnership is established that focuses on improving the health of citizens. Health science concepts and applications are integrated through systematic examination of an identified need within the community health organization. Students complete a comprehensive body of work that may include a needs assessment, situational analysis, and/or development of an action plan to address the community health problem. This course is the second of a two part series in service learning for Health Science majors.

Prereq:  HSC 491

**HUE 215  Principles of Human Ecology  CREDITS: 3**

Human ecology is an inquiry into the patterns and process of interaction of humans with their environments. Students are introduced to the history, scope, content, and methods used in the study of the ways that human values, activities, life-styles, and resources
affect and are affected by urban and rural environments.

Prereq: ENG 111

**HUM 116  Introduction to the Humanities**  
*CREDITS: 3*

Students explore and analyze the fields of mythology, religion, philosophy, literature, art, architecture, music, drama, and cinema, using the methods of interpretation and evaluation developed by scholars in the humanities.

**HUM 201  The Experience of Illness**  
*CREDITS: 3*

This course introduces and examines biographical accounts of illness and the hospital experience from the individual’s perspective to students of nursing, medicine, and allied health professionals. A number of case studies will be reviewed and will emphasize the singular implications of illness and hospitalization and the ways in which individuals express their feelings and perceptions of the care they receive. Students will respond critically to the readings through discussion and personal essays.

Prereq: ENG 111

**HUM 215  Film and Society**  
*CREDITS: 3*

This course introduces and examines biographical accounts of illness and the hospital experience from the individual’s perspective to students of nursing, medicine, and allied health professionals. A number of case studies will be reviewed and will emphasize the singular implications of illness and hospitalization and the ways in which individuals express their feelings and perceptions of the care they receive. Students will respond critically to the readings through discussion and personal essays.

**HUM 245  Science, Culture and Human Nature**  
*CREDITS: 3*

Using current theory and research in the fields of evolution, genetics, neuroscience, globalization, and ecological change, students examine the transformation of ideas about human nature. They investigate the relationship between science, technology, culture, and human nature.

Prereq: ENG 111

**HUM 308  Critical Thinking**  
*CREDITS: 3*

This course focuses on the development and application of systematic critical thinking skills. Students learn problem solving strategies, methods and frameworks for analysis of data, written documents, and the spoken word, and reasoning methods. This course facilitates interpretive and analytical skills, and reflective thought through an examination of data, texts, films, historical records, and case studies.

**IDS 100  Intro to Healthcare Delivery Systems**  
*CREDITS: 1*

This course provides an introduction to healthcare delivery systems and settings in the United States. The course offers a historical perspective on the origins of our healthcare system and the forces that change and shape our healthcare delivery systems today. This course includes overview information on healthcare costs, accreditation, and key health professions competencies.

**IDS 101  Introduction to Patient Care Skills**  
*CREDITS: 1*

This course will provide students with the opportunity to learn basic safety practices and infection control. Basic patient care principles and concepts will be discussed with emphasis on meeting selected hygiene and physical needs of the individual. Students will be given the opportunity to practice skills in a lab setting and demonstrate competency by completing the required skills through proficiency check offs. This course is offered in an integrated lecture / skills practice format. (0.5 credit lecture/0.5 credit
IDS 102C  Basic Patient Care Skills Clinical  CREDITS:  2
This course provides the student with the opportunity to develop and demonstrate basic patient care skills learned in previous coursework. This course will focus on practicing basic patient care principles and concepts to meet the physical, psychosocial and spiritual needs of the individual. Skills to be demonstrated include: therapeutic communication, infection control, safety practices and meeting the basic and special needs of the long term care patient.

IDS 107  Introduction to Sign Language  CREDITS:  1
This course is designed to teach basic sign language conversational skills to health care professionals. When appropriate, vocabulary is tailored for use in healthcare settings. This course includes a brief overview of deaf culture including the Americans with Disabilities Act (ADA) and the use of the Virginia Relay System to place calls between standard and text telephones.

IDS 111  Basic Cardiac Rhythm Interpretation  CREDITS:  1
This course will introduce the multi-skilled patient-focused provider to basic skills associated with cardiac rhythm recognition. The student learns basic cardiac anatomy and electrophysiology and the techniques of lead placements. The main focus is the recognition of basic dysrhythmias.

IDS 112  Basic First Aid/CPR Healthcare Providers  CREDITS:  1
This course will introduce the student to basic skills associated with emergency and cardiac care. Instruction will allow the provider to become competent in providing initial care and assisting other healthcare team members in the care of the patient who has specific needs during an emergency situation. This course is offered through a nationally recognized certifying body and includes topics such as interventions for bleeding, choking, poisoning, heart-related emergencies, and CPR. At the conclusion, the student will be eligible to test for certification in First Aid and CPR.

IDS 114  Twelve-Lead ECG Interpretation  CREDITS:  1
This course introduces the healthcare student to the basic skills of 12-Lead ECG interpretation. This course includes a review of ECG basics, acquisition of the 12-Lead ECG, recognition and localization of acute myocardial infarction. Basic treatment modalities with regard to acute coronary syndrome are addressed.

IDS 140  Integrated Sciences for Healthcare  CREDITS:  3
This course is an integration of the major areas of scientific study with application to healthcare. It includes an introduction to the metric system, anatomy and physiology of the heart and lungs, physiologic chemistry, medical physics with emphasis upon the physics of gases and fluids, and basic microbiology.

IDS 201  The Experience of Illness  CREDITS:  3
This course introduces and examines biographical accounts of illness and the hospital experience from the individual's perspective to students of nursing, medicine, and allied health professionals. A number of case studies will be reviewed and will emphasize the singular implications of illness and hospitalization and the ways in which individuals express their feelings and perceptions of the care they receive. Students will respond critically to the readings through discussion and personal essays.

Prereq:  ENG 111
IDS 203  Applied Spanish - Healthcare Profession  CREDITS: 3
This course teaches a basic understanding of the mechanics of spoken and written Spanish, and is constructed specifically for the healthcare setting. Students will learn common terms and phrases used in healthcare settings (e.g., exams, diagnoses, discharge instructions) as well as basic grammar, composition, conversation and culture.

IDS 215  Bioethics  CREDITS: 3
This course focuses on the field of bioethics, including the study of theoretical approaches principles, legal aspects, and process of ethical decision making in healthcare issues. Examination of ethical and legal issues in landmark and contemporary cases will build a foundation for clinical application.

IDS 253  Introduction to Research Methods  CREDITS: 3
The student is introduced to research methodology for the purpose of understanding others' research in preparation for applying research to health care practice. The course includes information on research designs, sampling, and data collection and analysis. Various examples of research will be critiqued focusing on the student's concentration of study. This course is not available to students who are enrolled in or plan to enroll in IDS 254.
Prereq:  MTH 210 or MTH 265 or MTH 301

IDS 254  Introduction to Research Design  CREDITS: 3
The student is introduced to scientific research designs used by the health and human sciences. The student develops general research design methods and prepares to advance to actual data collection and analysis. This course is not available to students who are enrolled in or plan to enroll in IDS 253.
Prereq:  MTH 210 or MTH 265 or MTH 301

IDS 255  Introduction to Library Research  CREDITS: 1
This course is an introduction to methods of library research including use of print, electronic subscription and Web-based resources. Students learn how to effectively search, retrieve, evaluate, and document information for college-level research projects.

IDS 285  Special Topics  CREDITS: 3
This course offers students the opportunity to study special topics based upon the students’ needs and interests. This course is repeatable.

IDS 305  Complementary/Alternative Approaches  CREDITS: 3
This course provides an overview of complementary and alternative therapies and their impact upon health care delivery. Lecture and discussions include the attributes and shortcomings of complementary and alternative approaches and conventional medicine. The history and maturation of complementary and alternative approaches are examined.

IDS 306  Arts in Healing  CREDITS: 3
This course focuses on the use of the expressive arts in the practice of nursing and other healthcare disciplines. This experiential course provides a beginning understanding of how a variety of artistic media, techniques, and aesthetics are used to foster healing in clients as well as healthcare providers.

IDS 307  Topics in Interdisciplinary Healthcare  CREDITS: 3
In this course, students are introduced to challenges facing the American healthcare system and current recommendations for change. Emphasis is placed on factors that contribute to positive interdisciplinary healthcare interventions. Students work in
interdisciplinary groups to develop a client-centered healthcare intervention project.

Prereq: ENG 112 and SOC 213 and IDS 215

**IDS 308 Critical Thinking**  CREDITS: 3
This course focuses on the development and application of systematic critical thinking skills. Students learn problem solving strategies using critical analysis and reasoning methods. This course facilitates independent thought through an examination of attitudes and processes that support sound decision-making.

**IDS 320 Transcultural Healthcare**  CREDITS: 2
This course focuses on transcultural healthcare within a service learning framework. The emphasis is on assessing needs and providing healthcare in a medically underserved community using an interprofessional approach. Guidelines from the World Health Organization will provide a foundation for discussion. (Pass/Fail)

**IDS 340 Appalachian Health and Culture**  CREDITS: 3
In this course students are introduced to the history of health and healthcare in the mountains of Appalachia and the engaging interface between Appalachian culture and health. The region's current health status is discussed with regard to problematic health conditions, leading causes of morbidity and mortality, and access to comprehensive healthcare.

Prereq: (SOC 213 or IDS 215)

**IDS 350 Spanish Language & Culture**  CREDITS: 3
This course for healthcare professionals has been specifically designed using second language learning models. Lessons build upon each other, encouraging the use and re-use of newly acquired language. Emphasis is on the development of oral and aural skills and the practical use of the language for clinical settings. Cultural perspectives are written into each lesson of the course. The cultural perspectives emphasize awareness and sensitivity of the Hispanic client.

**IDS 360 Introduction to Client Education**  CREDITS: 3
The nursing and allied health student will explore and apply learning theory and client teaching strategies to improve healthcare education in various environments. Students will analyze a variety of factors so they can design and develop client education materials and use available technologies to teach clients how to maintain optimal health, prevent disease and disability. These student-developed materials will assist clients to increase independence and improve their quality of life. Students will explore strategies to evaluate learning outcomes to measure teaching effectiveness.

Prereq: ENG 325

**IDS 370 End of Life Issues**  CREDITS: 3
This course will provide the student with the opportunity to examine issues related to end of life care. The nine modules of the End of Life Nursing Education Consortium (ELNEC) Curriculum will be incorporated into the course. Students will apply theory related to the physical, psychosocial and spiritual needs of patients near the end of life in clinical practice and/or case study situations.

**IDS 372 Spirituality in Healthcare**  CREDITS: 3
In this course, the student will examine the role of spirituality in healthcare practice. Healthcare interventions from birth through end-of-life care will be analyzed to determine what impact the spirituality of the patient and/or healthcare provider has on clinical outcomes and the healing process itself. Added focus will be given to specific populations
including children, dying persons, and those who are bereaved.

IDS 450  Global Health Issues  CREDITS:  3
This course is intended to provide an interdisciplinary qualitative and quantitative review of global health issues. It will focus on cultural variations in healthcare delivery. It will provide a broad survey of the main facts, issues, perspectives, methods, results and conclusions in the area of global populations and health. It will address some of the unique qualities of ethnomedicine, variations in socioeconomic status and the impact of societal variation on contemporary issues affecting global health. The course will provide an opportunity for students to engage in discussions of comparative regional health issues that impact healthcare delivery. The course will facilitate the student's ability to explain the significant role of healthcare plays in the global community.

IDS 453  Research Methods  CREDITS:  3
This course is designed to study research methodology pertaining to topics within the health professions. The course will deliver information on research designs, sampling, and data collection and analysis. Various examples of research will be critiqued focusing on the student's concentration of study.

IDS 501  Leadership in Healthcare Systems  CREDITS:  3
This course provides an overview of current theory, principles and skills of leadership in healthcare organizations. The course focuses on the development of competency in the application of leadership theory in a variety of healthcare settings. Students will examine their own leadership styles, discuss the impact of these, and apply leadership skills in team-based, problem-based healthcare situations. Students will explore the implications of current health policies and political and financial issues on the delivery of healthcare.

IDS 502  Research Methodologies  CREDITS:  3
Students will critically review and analyze generic research methods used in healthcare. Emphasis is placed upon the student being able to read and interpret the literature presented. Course content will introduce methods of scholarly research that will be used in their research project.

IDS 503  Advanced Statistics for Healthcare  CREDITS:  3
This course examines statistical methods of analyses of variance and multiple linear regression as used in healthcare research. Content includes descriptive statistics, ANOVA, repeated measures analysis of variances, correlation analysis, and multiple linear regression. Learning statistical theories is coupled with practice of data analysis using statistical software.

IPE 200  Fundamentals of Teamwork  CREDITS:  1
This course introduces the basic elements of what a team is and how an effective team functions. Students engage in various exercises to experience the successes and failures associated with teamwork.

IPE 300  Interprofess Healthcare Discovery Collab  CREDITS:  1
This course provides the framework to understand, value, and respect the contributions of various healthcare professionals in a team-based patient-centered environment.
Prereq:  IPE 200

IPE 400  Interprofessional Healthcare Experiences  CREDITS:  1
This course provides simulated experiences in the application and synthesis of effective interprofessional healthcare team dynamics focused on patient-centered outcomes.
Prereq:  IPE 300
IPE 401 Foundations Interprofessional Leaders I  CREDITS:  2
This course introduces concepts and skills necessary for interprofessional leadership. Students are introduced to interprofessional communication and collaboration for improving patient health outcomes. Through interprofessional group experiences, the student develops the foundation for organizational and systems leadership for quality care and patient safety. (lecture 1 credit, lab 1 credit) Pass/fail.

IPE 402 Foundations Interprofessional Leaders II  CREDITS:  2
This course builds on the concepts and skills presented in Interprofessional Leadership I. Students experience complex interprofessional communication and collaboration through a community-based service-learning project. Through interprofessional group experiences, the student is prepared for organizational and systems leadership for quality care and patient safety. (lecture 1 credit, lab 1 credit) Pass/fail.

IPE 501 Foundation of Interprofessional Leadership I  CREDITS:  2
This course introduces concepts and skills necessary for interprofessional leadership. Students engage in interprofessional communication and collaboration for improving patient-centered health outcomes. This course examines the interprofessional, professional, legal and historical issues commonly faced in practice. Pass/fail.

IPE 502 Foundation of Interprofessional Leadership II  CREDITS:  2
This course builds on the concepts and skills presented in Interprofessional Leadership I. Students experience complex interprofessional communication and collaboration through a community-based service-learning project. Through interprofessional group experiences, the student is prepared to appreciate healthcare organizational and systems leadership for quality care and patient safety. (Pass/Fail)

IPE 507 Ethical and Legal Issues in Practice  CREDITS:  3
This course focuses on the ethical and legal principles that impact healthcare systems. Special emphasis is placed on ethical and legal decision-making from a personal and organizational perspective. (Pass/fail)

IPE 509 Research & Evidence-Based Practice  CREDITS:  3
In this course, students focus on utilization of new knowledge and evidence to provide quality healthcare, initiate change and improve healthcare practice. This includes problem identification, evaluation of research and awareness of patient management and practice outcomes. Students develop skill in accessing, assessing and applying current research to healthcare practice.

MLS 401 Foundations Medical Laboratory Science  CREDITS:  14
Students receive instruction to prepare them for clinical practice in Medical Laboratory Science. Instruction in laboratory operations and quality control, regulatory agencies and requirements, stages of clinical testing, and professionalism is included. Students focus on theory, application, and interpretation of normal and abnormal body processes to determine diagnoses, applicable testing methodologies, and treatment options. Coreq: MLS 421C

MLS 411 Medical Laboratory Science Operations  CREDITS:  14
Students receive instruction to prepare them for clinical practice in Medical Laboratory Science. Physiological biochemistry, normal and abnormal physiology, and interpretation of results using accepted methodologies are covered. Principles of clinical laboratory
management and educational methods related to laboratory professionals are discussed.

Prereq: (MLS 401 and MLS 421C)

Coreq: MLS 431C

**MLS 421C Medical Laboratory Science Rotation I**

CREDITS: 4

This is the first of two clinical rotation blocks required of Medical Laboratory Science students. Students spend time in the clinical laboratory training with certified laboratory scientists. Students must achieve competency equivalent to entry-level expectations in each laboratory department. (Pass/Fail)

Coreq: MLS 401

**MLS 431C Med Lab Science Clinical Rotation II**

CREDITS: 4

This is the second of two clinical rotation blocks required of Medical Laboratory Science students. Students spend time in the clinical laboratory training with certified laboratory scientists. Students must achieve competency equivalent to entry-level expectations in each laboratory department. (Pass/Fail)

Prereq: (MLS 401 and MLS 421C)

Coreq: MLS 411

**MTH 130 Applied Math Healthcare Professionals**

CREDITS: 3

The course develops basic math skills and expertise in math problems that use fractions, decimals, ratios, proportions, and percentages as applied to common healthcare-related calculations. It examines systems of measurement and conversions within and between those systems. It also develops the concepts of dilution, flow rate, and solving for x with basic algebraic formulas.

**MTH 165 College Algebra**

CREDITS: 3

This course presents various topics from algebra within the complex number system. These include linear and quadratic equations and inequalities, functions and graphs, polynomials, logarithms and systems of equations and inequalities. Some topics from analytic geometry and discrete algebra also will be explored.

**MTH 170 Precalculus with Trigonometry**

CREDITS: 3

This course presents basic concepts and methods necessary for the study of calculus. Topics include functions and their properties, systems of equations, matrices, and exponential, logarithmic, trigonometric, and inverse functions.

**MTH 201 Calculus**

CREDITS: 3

This course presents differential calculus of one variable including limits, differentiation, and integration with numerous applications. The course is primarily designed for students in biology, behavioral sciences, and pre-professional studies.

Prereq: MTH 165 or MTH 170

**MTH 202 Calculus II**

CREDITS: 3

This course continues the study of one-variable calculus, including the analyses of definite and indefinite integrals with applications to algebraic and transcendental functions, areas, and volumes of solids. The course is primarily designed for students in biology and pre-professional studies.

Prereq: MTH 201

**MTH 265 Introductory Statistics**

CREDITS: 3

The student focuses on basic statistical concepts and applications based upon
conceptual as well as practical understanding of statistical analyses. Both descriptive and inferential analyses are presented, as well as parametric and nonparametric statistics, including correlation, regression, and group-comparison statistics through two-way factorial analysis of variance.

Prereq: (MTH 130 or MTH 165 or MTH 170 or MTH 201)

**MUS 101  Music Appreciation  CREDITS:  3**

Music appreciation is a course designed to introduce musical elements, forms and stylistic periods, and to stimulate curiosity and enthusiasm and heighten the appreciation of music.

**NSG 201  Dosage Calculations  CREDITS:  1**

This course reviews basic mathematics used by nurses for dosage calculation of medications and solutions. It focuses on calculating medication dosages (oral and parenteral), intravenous fluid flow rates and infusion time, and preparation of solutions. Students learn how to interpret medication orders and drug labels.

Prereq: (MTH 165 or MTH 170 or MTH 201)

**NSG 203  Foundations for Profess Nursing Practice  CREDITS:  3**

Students are introduced to the curriculum framework and foundational concepts for practice as a generalist in the nursing profession. The student explores the roles of provider, designer, manager, and coordinator of care. The nursing process is introduced as the model for critical thinking in evidence-based practice. The student considers the impact of nursing history, nursing theory, professional values, and human diversity on practice. The student develops therapeutic communication, interviewing, and documentation skills.

Prereq: BIO 253

**NSG 204  Found Professional Nrsg Practice ABSN  CREDITS:  3**

Students explore the curriculum framework and foundational concepts for practice as a generalist in the nursing profession. The student explores the roles of provider, designer, manager, and coordinator of care. The nursing process is introduced as the model for critical thinking in evidence-based practice. The student considers the impact of nursing history, nursing theory, professional values, and human diversity on practice. The student develops therapeutic communication, interviewing, and documentation skills.

Prereq: BIO 253

**NSG 255  Health Assessment  CREDITS:  3**

Students are introduced to health assessment, which is the first step in understanding the nursing process. It focuses on the concepts, knowledge, and skills necessary to complete a health assessment for patients in all age groups. The major elements, sequence, and methodology of health assessment are emphasized. (2 lecture, 1 laboratory)

Prereq: BIO 253

Coreq: NSG 255L

**NSG 255L  Health Assessment Laboratory  CREDITS:  0**

Students are introduced to health assessment, which is the first step in understanding the nursing process. It focuses on the concepts, knowledge, and skills necessary to complete a health assessment for patients in all age groups. The major elements,
sequence, and methodology of health assessment are emphasized. (2 lecture, 1 laboratory)

Coreq: NSG 255

**NSG 256 Health Assessment for ABSN**

CREDITS: 3

Students are introduced to health assessment, which is the first step in understanding the nursing process. It focuses on the concepts, knowledge, and skills necessary to complete a health assessment for patients in all age groups. The major elements, sequence, and methodology of health assessment are emphasized. (2 lecture, 1 laboratory)

Coreq: NSG 256

**NSG 256L Health Assessment for ABSN**

CREDITS: 0

Students are introduced to health assessment, which is the first step in understanding the nursing process. It focuses on the concepts, knowledge, and skills necessary to complete a health assessment for patients in all age groups. The major elements, sequence, and methodology of health assessment are emphasized. (2 lecture, 1 laboratory)

Coreq: NSG 256

**NSG 290 Nursing Independent Study**

CREDITS: 1

Independent study courses are designed to permit the students, with faculty supervision, to study topics or areas of particular interest. The subjects are usually continuations in greater depth of a topic covered in a regular course and usually involve extensive readings, clinical practice under supervision of a preceptor and may include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director.

**NSG 300 Pharmacology**

CREDITS: 3

Students are provided with a foundation in basic pharmacological principles. Students focus on how the knowledge base and nursing process are applied to safely administer and monitor the effects of drugs in patient care across the lifespan.

**NSG 302 Professional Nursing Skills I**

CREDITS: 2

Students develop the psychomotor, cognitive, and affective nursing skills necessary to practice safely and competently across the lifespan. Students are provided the theoretical basis for professional nursing skills and the course is offered in an integrated lecture/skills practice format. (1 credit lecture, 1 credit skills practice)

**NSG 306 Arts in Healing**

CREDITS: 3

This course focuses on the use of the expressive arts in the practice of nursing and other healthcare disciplines. This experiential course provides a beginning understanding of how a variety of artistic media, techniques, and aesthetics are used to foster healing in clients as well as healthcare providers.

**NSG 307 Professional Nursing Practice I ABSN**

CREDITS: 1

Students are provided with the opportunity to assess progress toward achievement of program outcomes and readiness for entry level nursing practice. Students demonstrate progress toward achievement of program outcomes via standardized testing. Students develop strategies related to preparation for professional licensure examination and readiness for entry-level nursing practice.

Prereq: NSG 354
NSG 308  Professional Nursing Skills II  CREDITS:  2
This course develops the advanced psychomotor, cognitive, and affective nursing skills necessary to practice safely and competently across the lifespan in diverse healthcare settings. This course provides students with the theoretical basis for professional nursing skills and is offered in an integrated lecture / skills practice format. (1 credit lecture, 1 credit skills practice)
Prereq:  (NSG 324 and NSG 326)
Coreq:  NSG 327

NSG 309  Professional Nursing Practice I  CREDITS:  1
This course provides students with the opportunity to assess progress toward achievement of program outcomes and readiness for entry level nursing practice. Students demonstrate progress toward achievement of program outcomes via standardized testing. Students develop strategies related to preparation for professional licensure examination and readiness for entry-level nursing practice.
Prereq:  (NSG 325 or NSG 327)

NSG 311  NRSG Process Aging/Mental Hlth ABSN  CREDITS:  4
Students are provided with the opportunity to assess progress toward achievement of program outcomes and readiness for entry level nursing practice. Students demonstrate progress toward achievement of program outcomes via standardized testing. Students develop strategies related to preparation for professional licensure examination and readiness for entry-level nursing practice.
Prereq:  NSG 204 and NSG 256
Coreq:  NSG 358C

NSG 312  RN Nursing Concepts Roles & Issues  CREDITS:  3
Students are introduced to the foundational concepts for practice as a generalist in the profession of nursing. The roles of provider, designer, manager, and coordinator of care are explored. Students examine the impact of nursing history, nursing theory, evidence-based practice, and professional ethics on the practice of professional nursing and the delivery of patient-centered care.

NSG 313  Nsg Process Mental Health/Gerontology  CREDITS:  5
This course explores the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the care of mental health clients across their lifespan and older adult clients. Emphasis is placed on nursing strategies that promote physical and mental health, and safe, quality patient-centered care.
Prereq:  (NSG 203 and NSG 255)

NSG 314  Nursing Process Psychiatric/Mental Hlth  CREDITS:  3
This course explores the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the promotion of mental health along the mental health mental illness continuum across the lifespan. Emphasis is placed on nursing strategies that promote physical and mental health and safe, quality patient-centered care.
Prereq:  NSG 203 and NSG 255

NSG 316  Nursing Process in Gerontology  CREDITS:  3
Students explore the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the care of older adult clients. Emphasis is placed on
nursing strategies that promote wellness in older adults, patient engagement, and safe, quality patient-centered care along the aging continuum.

Prereq: NSG 203 and NSG 255

NSG 319 RN Comprehensive Approach Health/Illness I CREDITS: 3
This course presents a comprehensive approach to health and illness through the lifespan. Emphasis is placed on health assessment, health promotion, health literacy, and teaching/learning principles. The course examines the etiology, genetics and genomics, pathophysiology, and clinical manifestations of common disease processes. Students demonstrate physical assessment techniques and integrate knowledge of pharmaceutical and non-pharmaceutical treatment modalities into evidence-based practice.

NSG 320 Informatics & Technology in Healthcare CREDITS: 3
Students investigate the use of computer applications in the healthcare environment, particularly in the area of clinical practice, education, and research. The use of computer technology in communication and networking is also explored.

NSG 324 Nursing Process Applications I CREDITS: 3
This course develops the knowledge base needed to provide patient-centered care. Concepts of illness and disease management are integrated. The students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.

Prereq: NSG 255

NSG 325 Nursing Process Applications II CREDITS: 3
This course continues to develop the knowledge base needed to provide patient-centered care. Concepts of illness and disease management are integrated. Students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.

Prereq: NSG 324

NSG 326 Nursing Process Applications TBSN I CREDITS: 4
This course develops the knowledge base needed to provide patient-centered care. Concepts of illness, disease management and pharmacology are integrated. The students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.

Prereq: (NSG 203 and NSG 255)

NSG 327 Nursing Process Applications TBSN II CREDITS: 4
Students investigate the use of computer applications in the healthcare environment, particularly in the area of clinical practice, education, and research. The use of computer technology in communication and networking is also explored.

Prereq: NSG 326
Coreq: NSG 308

NSG 328C Clinical Practicum TBSN I CREDITS: 3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the first in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the novice level of clinical performance.

Prereq: NSG 203 and NSG 255
NSG 331  Nursing Process Families with Children  CREDITS:  4
Students focus on maternal-newborn care and on the care of children from infancy through adolescence. Conception, pregnancy, fetal development, childbirth, and postpartum care are addressed. Emphasis is placed on nursing care of families, child growth and development from conception through adolescence, and common recurring pediatric illnesses. Nursing strategies that promote health, reduce risk, and prevent disease will be included.
Prereq:  (NSG 324 or NSG 326)

NSG 332  High Acuity Nursing I  CREDITS:  3
This course provides students with the knowledge base needed to care for high acuity patients with complex nursing needs. In this course the students apply pathophysiological and pharmacological concepts to high acuity patients to enhance clinical decision-making. Incorporated into this course are the current American Association of Critical Care Nurses (AACN) Standards for Acute and Critical Care Nursing.
Prereq:  (NSG 325 or NSG 312)

NSG 333  NRSG Proc Families W/Children ABSN  CREDITS:  4
Students focus on maternal-newborn care and on the care of children from infancy through adolescence. Conception, pregnancy, fetal development, childbirth, and postpartum care are addressed. Emphasis is placed on nursing care of families, child growth and development from conception through adolescence, and common recurring pediatric illnesses. Nursing strategies that promote health, reduce risk, and prevent disease are included.
Coreq:  NSG 369C

NSG 334  RN Writing in Professional Nursing  CREDITS:  3
Students develop knowledge and skills in professional writing, both formal and informal. Students focus on communicating professional information through writing in an interprofessional environment.

NSG 338C  Clinical Practicum TBSN II  CREDITS:  3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the second in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the assisted level of clinical performance.
Prereq:  NSG 328C

NSG 342  RN Health Assessment  CREDITS:  3
Students focus on the concepts, knowledge, and skills necessary to complete a health assessment for patients across the lifespan. The major elements, sequence, and methodology of health assessment are emphasized using a body systems approach.

NSG 350  Professional Nursing Skills for ABSN  CREDITS:  3
Students develop psychomotor, cognitive, and affective nursing skills and the theoretical basis necessary to practice safely and competently across the lifespan. This course is presented in an integrated lecture/skills practice format. (2 credits lecture, 1 credit skills practice)

NSG 354  Nursing Process Applications for ABSN I  CREDITS:  3
Students develop knowledge, skills, and attitudes needed to provide quality patient-
centered care. Concepts of health, illness, and disease management are integrated. In the role of provider of care, the student applies the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.

Prereq: NSG 350

**NSG 355  Disaster Nursing**  CREDITS: 3
This course provides information on types of disasters and how the state, local, and national responses work together with nursing both in the field and within the hospital. The course provides an opportunity for students to engage in discussions regarding social, cultural, and legal and ethical issues with regard to the effects of a disaster. The course facilitates the student's ability to explain the significant role nurses play in responding to a disaster.

**NSG 358C  Clinical Practice for ABSN I**  CREDITS: 4
During this practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the novice level of clinical performance.

Prereq: NSG 300
Coreq: NSG 311

**NSG 360  Principles of Client Education**  CREDITS: 3
The nursing and allied health student will explore and apply learning theory and client teaching strategies to improve healthcare education in various environments. Students will analyze a variety of factors so they can design and develop client education materials and use available technologies to teach clients how to maintain optimal health, prevent disease and disability. These student-developed materials will assist clients to increase independence and improve their quality of life. Students will explore strategies to evaluate learning outcomes to measure teaching effectiveness.

Prereq: ENG 325

**NSG 361  Nursing Process Application ABSN II**  CREDITS: 3
Students develop the knowledge, skills, and attitudes needed to provide acute, ambulatory, and home care for selected health problems. Students apply the nursing process in increasingly complex situations, integrating concepts of illness, disease management, and health promotion. Emphasis is on the roles of designer/manager/coordinator of care and interprofessional collaborator.

Prereq: (NSG 354 and NSG 358C)
Coreq: NSG 369C

**NSG 369C  Clinical Practicum for ABSN II**  CREDITS: 4
During this practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the supervised level of clinical performance.

Prereq: (NSG 354 and NSG 358C)
Coreq: NSG 333 and NSG 361

**NSG 370  End of Life Issues**  CREDITS: 3
This course will provide the student with the opportunity to examine issues related to end of life care. The nine modules of the End of Life Nursing Education Consortium (ELNEC) Curriculum will be incorporated into the course. Students will apply theory related to the physical, psychosocial and spiritual needs of patients near the end of life in clinical
practice and/or case study situations.

**NSG 372  Spirituality in Healthcare Practice**  CREDITS: 3
In this course students examine the roles of spirituality in healthcare practice. Healthcare interventions from birth through end-of-life care will be analyzed to determine what impact the spirituality of the patient and/or healthcare provider has on clinical outcomes and the healing process itself. Added focus will be given to specific populations including children, dying persons, and those who are bereaved.

**NSG 373  Chronic Disease Management**  CREDITS: 3
This course, focused on adult health, provides an introduction to the history of disease management identifies key concepts of chronic disease management and explores chronic disease management models.
Prereq: ENG 111

**NSG 375  RN Gerontological Nursing**  CREDITS: 3
Students explore the gerontological nursing role of provider, designer, manager, and coordinator of care as they relate to the care of older adult clients. Emphasis is placed on nursing strategies that promote healthy aging and quality of life in older adults as well as safe, quality patient-centered care.
Prereq: BIO 300

**NSG 408  Professional Nursing Prac II ABSN**  CREDITS: 1
Students explore the gerontological nursing role of provider, designer, manager, and coordinator of care as they relate to the care of older adult clients. Emphasis is placed on nursing strategies that promote healthy aging and quality of life in older adults as well as safe, quality patient-centered care.
Prereq: NSG 307

**NSG 409  Professional Nursing Practice II**  CREDITS: 1
In this capstone course, students validate achievement of program outcomes and readiness for entry-level generalist nursing practice. The students demonstrate clinical reasoning within the context of patient-centered care. Students integrate current evidence-based concepts from nursing science, humanities, social and natural sciences, and apply them in a case-study based capstone paper. Students demonstrate knowledge for entry-level practice via standardized testing.
Prereq: (NSG 424 or NSG 426)

**NSG 410  Research Applications in Healthcare**  CREDITS: 3
Students are introduced to the role of research in the delivery of healthcare. The scientific method and research process are examined. The students evaluate and discuss research designs, sampling designs, data collection methods, and data analysis.
Prereq: MTH 265

**NSG 412  Professional Nursing Capstone for ABSN**  CREDITS: 2
Students validate achievement of program outcomes and readiness for entry-level generalist nursing practice. The students demonstrate clinical reasoning within the context of patient-centered care. Students integrate current evidence-based concepts from nursing science, humanities, social and natural sciences, and apply them in a case-study based capstone paper. Students develop strategies related to preparation for professional licensure examination and demonstrate readiness via standardized
remediation and testing.
Prereq: NSG 361

**NSG 418 RN Comprehensive Appro Health/Illness II**  
**CREDITS:** 3

This course presents a comprehensive approach to health and illness in increasingly complex health situations through the lifespan. Emphasis is placed on health assessment, health promotion, health literacy, and teaching/learning principles. The course examines the etiology, genetics and genomics, pathophysiology, and clinical manifestations of complex disease processes. Students demonstrate physical assessment techniques and integrate knowledge of pharmaceutical and non-pharmaceutical treatment modalities into evidence-based practice.
Prereq: NSG 361

**NSG 419 Promoting Health in Community ABSN**  
**CREDITS:** 4

Students are provided a foundation for health education, health promotion, and nursing practice in community health. Topics include health promotion, environmental health, epidemiology, care of family as client, care of community as client, care of vulnerable populations, contemporary problems in community health nursing, genetic and genomic factors affecting health of individuals and families, and settings for community health nursing practice. Students apply concepts of cultural competence, health promotion, and health education to population health.
Prereq: NSG 361  
Coreq: NSG 479C

**NSG 420 RN Community Health Nursing**  
**CREDITS:** 3

Students are provided with the foundation for community health nursing practice. Topics include health promotion, environmental health, epidemiology, family as client, community as client, vulnerable populations, contemporary problems in community health nursing, and settings for community health nursing practice. The concept of population health is emphasized.
Prereq: NSG 324  
Coreq: NSG 422C and NSG 486

**NSG 421 Promoting Health in Community**  
**CREDITS:** 4

This course provides a foundation for health education, health promotion, and nursing practice in community health. Topics include health promotion, environmental health, epidemiology, care of family as client, care of community as client, care of vulnerable populations, contemporary problems in community health nursing, genetic and genomic factors affecting health of individuals and families, and settings for community health nursing practice. Students apply concepts of cultural competence, health promotion, and health education to population health.
Prereq: NSG 325 or NSG 327 or NSG 361  
Coreq: NSG 424

**NSG 422C RN Community Health Nursing Clinical**  
**CREDITS:** 2

Students integrate the concepts and theory of population health in the clinical setting. Clinical experiences take place in selected community health agencies. (pass/fail)
Coreq: NSG 420
NSG 424  Nursing Process Applications III  CREDITS:  3
This course develops the knowledge base needed to provide patient-centered care to include acute intervention, ambulatory, and home care for selected health problems. Students apply the nursing process in increasingly complex situations. Concepts of illness and disease management are integrated.
Prereq:  NSG 325
Coreq:  NSG 421 and NSG 428C

NSG 425  Nursing Process Applications IV  CREDITS:  3
This course develops the knowledge base needed to provide patient-centered care in high acuity settings. Students apply the nursing process to clients in complex healthcare situations. Concepts of illness and disease management are integrated.
Prereq:  NSG 424

NSG 426  Nursing Process Applications TBSN III  CREDITS:  4
This course develops the knowledge base needed to provide patient-centered care to include acute intervention, ambulatory, and home care for selected health problems. Students apply the nursing process in increasingly complex situations. Concepts of illness, disease management and pharmacology are integrated.
Prereq:  NSG 327
Coreq:  NSG 429C

NSG 427  Nursing Process Applications TBSN IV  CREDITS:  4
This course develops the knowledge base needed to provide patient-centered care in high acuity settings. Students apply the nursing process to clients in complex healthcare situations. Concepts of illness, disease management, and pharmacology are integrated.
Prereq:  NSG 426

NSG 428C  Clinical Practicum III  CREDITS:  3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the third in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the supervised level of clinical performance.
Prereq:  NSG 325
Coreq:  NSG 424

NSG 429C  Clinical Practice TBSN III  CREDITS:  4
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the third in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the supervised level of clinical performance.
Prereq:  NSG 327 and NSG 338C
Coreq:  NSG 426

NSG 432  High Acuity Nursing II  CREDITS:  3
This course provides students with the knowledge base needed to care for high acuity patients with complex nursing needs. In this course the students apply hemodynamic, research and pharmacological concepts to high acuity patients to enhance clinical
decision-making. Incorporated into this course are the current American Association of Critical Care Nurses (AACN) Standards for Acute and Critical Care Nursing and AACNPEARL (Practice, Evidence, Application, Resources, and Leadership) guidelines.

Prereq: (NSG 312 or NSG 332)

**NSG 435 Nursing Case Management**

This course will provide students with opportunities to develop skills in the nursing case management role. Students will explore collaborative strategies to enhance client care in a managed care environment and effective means to evaluate outcomes of interventions.

Prereq: NSG 325 or NSG 312

**NSG 438C Clinical Practicum TBSN IV**

During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the capstone (final) course in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the self-directed level of clinical performance.

Prereq: (NSG 424 or NSG 426) and (NSG 425 or NSG 427)

Coreq: NSG 473

**NSG 441 Holistic Nursing**

This course introduces students to the concept of self-healing within a philosophical and theoretic framework that includes quantum mechanics, mind/body phenomenon, innate intelligence and the energy body. This foundation is used to explore holistic nursing and energy therapy practice.

**NSG 449 Critical Care Transport**

This is an elective course offered to students who have an interest in ground and air-medical transport. Areas of study include history of air medevac, basic helicopter orientation, crew resource management, and interprofessional communications. The course focuses on management of the critically ill patient during transport.

Prereq: NSG 325

**NSG 450 Global Health Issues**

This course is intended to provide an interdisciplinary qualitative and quantitative review of global health issues. It will focus on cultural variations in healthcare delivery. It will provide a broad survey of the main facts, issues, perspectives, methods, results and conclusions in the area of global populations and health. It will address some of the unique qualities of ethnomedicine, variations in socioeconomic status and the impact of societal variation on contemporary issues affecting global health. The course will provide an opportunity for students to engage in discussions of comparative regional health issues that impact healthcare delivery. The course will facilitate the student's ability to explain the significant role healthcare plays in the global community.

**NSG 455 Ethical Issues/Current Nursing Practice**

This course examines ethical issues confronting nursing practice in the dynamic environment of expanding technology, rising costs, and a diverse global society. These issues arise across the human lifespan and are analyzed using the available models of ethical decision-making including the Code of Ethics for Nurses.

**NSG 460 Advanced Nursing Leadership**

The student will explore and define diverse components and skills of successful leaders
in nursing and health care. Emphasis is on knowledge of process/project management, professional presentations, grant processes, quality measures, work style analysis, and career options.

Prereq: ENG 325

**NSG 461  Nursing Process Applications ABSN III**  CREDITS:  3

Students continue the development of knowledge, skills, and attitudes to provide acute, ambulatory, and home care for selected health problems. Students apply the nursing process, integrating concepts of illness and disease management, and health promotion. The roles of the provider of care, designer/manager/coordinator of care, and interprofessional collaborator in complex nursing situations are emphasized.

Prereq: NSG 369C

Coreq:  NSG 479C

**NSG 470  Special Topics in Nursing**  CREDITS:  3

This course offers students the opportunity to study special topics in nursing. Topics include issues in Aging, Forensics, Adult Health, and other courses based upon student needs and interests.

**NSG 473  Leadership/Health Policy NRSG TBSN**  CREDITS:  3

Students integrate the concept of leadership roles, principles, theories, models, and health policies in healthcare practice. Emphasis is on the knowledge, skills, and attitudes required for interdisciplinary leadership in the clinical setting.

Coreq:  NSG 438C

**NSG 474  Leadership/Health Policy Nrsg ABSN**  CREDITS:  3

Students integrate the concept of leadership roles, principles, theories, models, and health policies in healthcare practice. Emphasis is on the knowledge, skills, and attitudes required for interdisciplinary leadership in the clinical setting.

Coreq:  NSG 479C

**NSG 475  Leadership and Health Policy in Nursing**  CREDITS:  3

Students integrate the concept of leadership roles, principles, theories, models, and health policies in healthcare practice. Emphasis is on the knowledge, skills, and attitudes required for interdisciplinary leadership in the clinical setting.

Coreq:  NSG 475C

**NSG 475C  RN Leadership/Health Policy NSG Clinical**  CREDITS:  2

Students integrate the concept of leadership roles, principles, theories, models, and health policies in healthcare practice. Emphasis is on the knowledge, skills, and attitudes required for interdisciplinary leadership in the clinical setting. (pass/fail)

Coreq:  NSG 475

**NSG 478C  Clinical Practicum for ABSN III**  CREDITS:  4

During the practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the self-directed level of clinical performance.

Prereq: NSG 361 and NSG 368C

**NSG 479C  Clinical Practice ABSN III**  CREDITS:  5

During this practicum, students participate in clinical experiences that complement the
accompanying nursing theory courses. Students reach the self-directed level of clinical performance.
Prereq: NSG 361
Coreq: NSG 419 and NSG 461 and NSG 474

NSG 485 RN Capstone Research CREDITS: 1
In this capstone course, students will validate achievement of program outcomes for generalist nursing practice. Students integrate and apply current evidence-based concepts from nursing science, humanities, and social and natural sciences.
Prereq: NSG 418

NSG 486 RN Capstone CREDITS: 3
Students validate achievement of program outcomes for generalist nursing practice. Students integrate and apply current evidence-based concepts from nursing science, humanities, and social and natural sciences.
Prereq: NSG 475
Coreq: NSG 420

NSG 490 Contemporary Nursing Issues CREDITS: 3
This course incorporates the generalist nursing knowledge common to baccalaureate nursing education as delineated in AACN The Essentials of Baccalaureate Education for Professional Nursing Practice. Students will explore and analyze current issues facing the professional practice of nursing as a foundation for advanced nursing education. (This course is open only to students accepted in the MSN program.)

NSG 502 Healthcare Systems & Policy CREDITS: 3
Healthcare systems, policy design, implementation and evaluation are analyzed. Strategies for policy advocacy as well as legislative and regulatory issues are explored.

NSG 506 Nursing Theory and Role Development CREDITS: 3
Students critically analyze theories from nursing and related fields and apply these in a variety of situations that involve the health care of individuals, groups and communities. The development of advanced practice roles is explored, particularly in the areas of administration and education. Professional, social and legal factors that influence the roles and practice of nursing are considered.

NSG 509 Translation of Evidence CREDITS: 3
Translation of new knowledge and evidence into practice is examined. Current research is accessed, assessed, and applied to healthcare practice.

NSG 510 Princ of Primary Care & Family Health CREDITS: 3
Fundamental concepts associated with primary care practice and family health are examined

NSG 515 Advanced Issues in Clinical Practice CREDITS: 3
This course focuses on the study of current issues affecting clinical practice. Systems and multidisciplinary aspects of care will be considered as they impact the delivery of healthcare. Students will select a clinical area of interest and explore particular patient care issues through a problem-based analysis of client outcomes and healthcare interventions. Student will incorporate theories and research regarding best practice in delivery of healthcare and consider future trends.
Prereq: IPE 507
NSG 516  Quality & Safety in Healthcare  CREDITS:  3
Strategies, theories, and methods to improve health outcomes are explored. Concepts of healthcare quality and safety are analyzed with a focus on patient and population health outcomes.

NSG 517  Quality Outcomes in Healthcare  CREDITS:  3
In this course, students explore quality management in healthcare. Concepts essential to the development of quality outcomes will be emphasized. Students will work in teams to synthesize quality concepts through the development of improvement plans.

NSG 522  Ethical & Legal Practice in Healthcare  CREDITS:  3
In this course, the student examines and analyses the impact of ethical, legal and political issues that are a force in the delivery of healthcare today. Through case studies, specific points of healthcare delivery are identified and used by the student for the analysis of the ethical, political and legal issues. The student will apply ethical, legal and political knowledge to both professional and organizational behavior.
Prereq: IPE 507

NSG 523  Population and Diversity  CREDITS:  3
Population focused disease prevention and health promotion concepts are analyzed. Influences of social, biological, cultural and geographic variables on health outcomes are explored.

NSG 530  Advanced Pathophysiology and Diagnostics  CREDITS:  3
This course provides nursing students with an understanding of physiology and pathophysiology that will support clinical decision making about diagnosis and treatment of acute and chronic presentations. The course will explore physiologic functions of the human body and its organ systems, along with concepts of pathophysiology pertaining to prevalent disorders, to explain etiology, predict clinical manifestations, and rationalize clinical nursing interventions. Nursing theoretical perspectives, developmental variables, and current research findings are emphasized throughout.

NSG 531  Adv Physiology and Pathophysiology  CREDITS:  3
Students obtain advanced knowledge on selected physiologic and pathophysiologic mechanisms in health and disease across the life span.

NSG 545  Advanced Pharmacology  CREDITS:  3
Students examine advanced concepts in pharmacotherapeutics necessary for the nurse practitioner role. Emphasis is placed on the pharmacokinetics and pharmacodynamics of drug classes.

NSG 549  Organizational Behavior & Theory  CREDITS:  3
Factors that affect organizational performance are explored. Students analyze and apply the concepts of organizational and leadership behavior and theories in healthcare.

NSG 550  Advanced Health Assessment  CREDITS:  2
Students obtain advanced knowledge to perform health histories, as well as developmental, physical, and psychosocial assessments for all systems across the lifespan.
Prereq: NSG 531

NSG 550L  Advanced Health Assessment Lab  CREDITS:  1
Students develop competence to perform advanced health histories, as well as developmental, physical, and psychosocial assessments for all systems across the
NSG 552L  Clinical Testing & Procedures Lab  CREDITS:  1
Students are introduced to interpretation of common diagnostic tests and performance of clinical procedural skills utilized in the primary care setting.
Coreq:  NSG 550L

NSG 570  Analytical Thinking/Writing Nurse Practice  CREDITS:  3
This course focuses on the refinement of analytic thinking and writing. The student will gain knowledge of various writing forms and styles. The student will synthesize and integrate this knowledge to develop professional communications, papers and presentations.

NSG 599  Independent Study in Nursing  CREDITS:  3
This course offers students the opportunity to study special topics in nursing based upon the students' needs and interests.

NSG 600  Educational Theory & Practice  CREDITS:  3
In this course students explore and critique theories and philosophical foundations of education and instructional design and their applications to education in nursing and healthcare. Students utilize principles of curriculum development, learning theories and instructional design to facilitate learning. Curriculum development is emphasized at institutional level, course level, and individual class level in academic and clinical settings. Students will develop a knowledge base in evidence-based educational practice.
Prereq:  NSG 517

NSG 605  Collaborative and Inter-prof Leadership  CREDITS:  3
The characteristics, roles, and practices of effective interprofessional teams are explored. The impact of collaboration and interprofessionalism on organizational leadership and clinical outcomes is emphasized.

NSG 609  Instructional Strategies and Evaluation  CREDITS:  3
In this course students explore, analyze, and evaluate teaching strategies and assessment as applied to diverse populations. Students select appropriate teaching strategies and evaluation methods for traditional, on-line, and clinical instruction. Class activities offer opportunities to study the uses and limitations of a variety of instructional, assessment and evaluation techniques. Students apply technology tools with a primary focus in either the teaching/learning environment or healthcare practice.

NSG 614  Primary Care Adults and Geriatrics I  CREDITS:  3
Students focus on the development of clinical decision making and other knowledge and skills needed to deliver advanced practice healthcare throughout the adult lifespan. Assessment, diagnosis, health promotion and prevention, and management of acute and chronic health issues within primary healthcare environments are emphasized.
Prereq:  NSG 550 and NSG 552L
Coreq:  NSG 615C

NSG 615C  Practicum I:Prim Care Adults and Geri  CREDITS:  2
Students develop competence to function in the advanced practice provider role with
adults and older adults experiencing acute and chronic conditions.

Coreq: NSG 614

**NSG 620  Infomatics and Data Management**  CREDITS:  3

Current and emerging patient care, communication, data management and health information technologies are analyzed. Quantitative data analysis skills are developed and decision support systems are explored.

**NSG 624  Primary Care Adults and Geriatrics II**  CREDITS:  3

This course is a continuation of Primary Care of Adult and Geriatrics I. Students focus on the development of clinical decision making and other knowledge and skills needed to deliver advanced practice healthcare throughout the adult lifespan. Assessment, diagnosis, health promotion and prevention, and management of acute and chronic health issues within primary healthcare environments are emphasized.

Prereq: NSG 614 and NSG 615C
Coreq: NSG 625C

**NSG 625C  Practicum II Prim Care Adults/Geriatrics**  CREDITS:  2

This course is a continuation of Practicum I. Students further develop competencies to function in the advanced practice provider role with adults and older adults experiencing acute and chronic conditions.

Coreq: NSG 624

**NSG 634  Primary Care of Children/Adolescents**  CREDITS:  3

Students focus on the development of clinical decision making and other knowledge and skills needed to deliver advanced practice healthcare to children and adolescents. Assessment, diagnosis, health promotion and prevention, and management of common health issues in children and adolescents within primary healthcare environments are emphasized.

Prereq: NSG 624 and NSG 625C

**NSG 635  Primary Care in Reproductive Health**  CREDITS:  2

Students focus on the development of knowledge and skills for clinical decision making needed to deliver advanced practice healthcare to individuals regarding reproductive health. Assessment, diagnosis, health promotion/disease prevention, and management of acute and chronic health issues for individuals and populations are emphasized.

Prereq: NSG 624 and NSG 625C

**NSG 636C  Pract III Children/Adolescents/Women**  CREDITS:  3

Students prepare to function in the advanced practice provider role with children, adolescents, and women.

**NSG 649  Organizational Planning and Marketing**  CREDITS:  3

This course focuses on the role of strategic planning and marketing within healthcare organizations and in the global healthcare economy. Analytical tools and decision making paradigms for market planning and strategy are explored. Various planning approaches, styles and theories are introduced. Emphasis is placed on methodologies for developing nursing and organizational strategic marketing plans.

**NSG 654  Adv Practice Roles and Leadership**  CREDITS:  1

Concepts of leadership are explored for Advanced Practice Roles in nursing.

Coreq: NSG 696
NSG 655  Financial Management of Healthcare  CREDITS:  3
 Terminology, tools, and methods of financial management in healthcare organizations and systems are examined. Concepts critical to making sound business and financial decisions in an ever changing healthcare economic climate are explored.

NSG 660  Human Resources  CREDITS:  3
 Human resource leadership and management practices in healthcare are explored. Advancing a culture of excellence through lifelong learning, building and leading collaborative interprofessional teams and designing innovative human resource practices will be emphasized.

NSG 665  Administrative Data and Info Management  CREDITS:  3
 In this course, students develop expertise in data management and quantitative thinking required for the strategic use of administrative data sets. Students apply quantitative analytical skills to nursing and healthcare systems decision making.
 Prereq: NSG 660 and NSG 655

NSG 671C  Administrative Residency  CREDITS:  3
 A capstone administrative experience is supervised by practice experts in nursing and healthcare administration. Competencies essential for the role of the nurse administrator are refined.
 Prereq: NSG 509

NSG 675C  FNP Preceptorship  CREDITS:  4
 Students refine history, examination, diagnosis, and management skills related to acute and chronic problems across the life span.
 Prereq: NSG 636C

NSG 681C  Educator Residency  CREDITS:  3
 This course is the capstone learning activity for the MSN concentration in Nurse Clinician Educator. Students actively participate in nursing education practice with supervision from education experts in nursing. Students learn and demonstrate growing competency with knowledge and skills essential to the nurse clinician educator.

NSG 695  Master's Project  CREDITS:  3
 This course provides the opportunity for students to integrate knowledge into a scholarly project in their area of interest under the direction of a faculty project advisor. Students identify a problem relevant to nursing, critique relevant literature and develop a plan to promote health, prevent disease or improve nursing practice. This course focuses on the refinement of analytic thinking and writing (pass/fail).
 Prereq: NSG 671C or NSG 681C

NSG 696  Integration Evidence in Adv Nrsng Pract  CREDITS:  2
 Students identify an issue worthy of inquiry relevant to advanced practice nursing. Students critique and integrate evidence based literature to develop and present a scholarly project. Analytic thinking and writing skills are refined.
 Coreq: NSG 654

OT 501  Fundamentals of Occupation  CREDITS:  3
 This course focuses on the history of occupational therapy (OT) and the development of OT philosophy, frames of reference, and theory. OT Practice Framework and activity analysis will be introduced with an overview of the OT process. The course will focus on
developing critical thinking, clinical reasoning, and interpersonal skills that are necessary to become an effective and successful occupational therapist. This course will examine the OT's role in health and wellness, the OT/OTA practitioner relationship, OT ethics and the core values of OT practice, as well as the structure and functions of the national and state professional organizations.

Coreq: OT 510 and OT 550 and OT 554

**OT 502 Research Methodologies**  CREDITS: 3
Students critically review and analyze research methods used in healthcare. Emphasis is placed upon the student being able to appraise the literature. Course content introduces scholarly research and provides students with a knowledge base to begin the research process, including evidence-based practice, research methodology, design, data analysis, and interpretation.

**OT 510 Use of Occupations in Mental Health**  CREDITS: 3
This course focuses on principles and intervention techniques used with individuals and populations experiencing a range of psychosocial dysfunction. Topics include models of practice within psychiatric OT practice settings, introduction to therapeutic use of self and the development of communication skills. Creating a list of various assessment tools used in Mental Health settings and practicing group dynamics skills are part of this course. Analysis of evidence-based practice articles concerning mental health issues will be conducted.

Coreq: OT 501 and OT 554

**OT 520 Humans in Motion**  CREDITS: 3
This comprehensive lecture and laboratory study analyzes normal human motion through task analysis. Students learn through hands-on laboratory sessions to enhance lectures and reading materials. Students are expected to have previous knowledge of human anatomy, specifically the musculoskeletal and nervous systems.

Prereq: BIO 521
Coreq: BIO 530 and OT 520L

**OT 520L Humans in Motion Lab**  CREDITS: 0
This comprehensive lecture and laboratory study analyzes normal human motion through task analysis. Students learn through hands-on laboratory sessions to enhance lectures and reading materials. Students are expected to have previous knowledge of human anatomy, specifically the musculoskeletal and nervous systems.

Coreq: OT 520

**OT 531 Occupational Response Pathological Cond**  CREDITS: 3
This course explores the many different pathological conditions that can affect human beings. Attention is placed on the effect of occupation as a result of developing various conditions. The holistic approach to medicine is applied to each disease process. Students will examine how OT can help improve the quality of life for individuals now faced with physical/mental challenges.

Coreq: OT 551

**OT 540 Occupation Using Adaptations**  CREDITS: 3
This course provides students multiple opportunities to explore and experience the gamut of technology as it applies to occupational therapy intervention and practice. Students will explore different resources that supply adaptive equipment and technology and the necessary forms/steps required for reimbursement of such devices. Students will
examine a myriad of adaptive devices as well as learn the use, application, and how to design/create splints. On-site visitation to prosthetic/orthotic manufacturer and state center for the evaluation of adaptive equipment (high and low tech) use by clients is included in this course.

Prereq: OT 531

OT 554 Fieldwork I-A Mental Health  CREDITS: 1

Students are provided clinical experiences, supervised by professionals in mental health settings. Placements are designed to enrich classroom learning through direct observation and participation in treatment and intervention. Roles are assigned by program faculty and on-site supervisors. Students will document observations and interactions using reflective journal entries and structured assignments.

Coreq: OT 501 and OT 510

OT 555 Fieldwork I-B  CREDITS: 1

Students engage consumers in community-based settings to explore issues concerning occupational therapy intervention within a variety of service populations (e.g. disability camps, shelters, adult day centers, elderly driving programs, etc.). Placements are designed to enrich classroom learning through direct observation and participation. Students document interactions in journals and assignments.

Coreq: OT 670

OT 556 Fieldwork I-C (Pediatric)  CREDITS: 1

Students engage consumers in pediatric settings (e.g. early intervention, schools, clinics, etc) to explore issues concerning occupational therapy intervention. Placements are designed to enrich classroom learning through hands-on experiences. Students are supervised by occupational therapy personnel. Students will document interactions in structured assignments.

Coreq: OT 602

OT 557 Fieldwork I-D (Geriatric)  CREDITS: 1

Students are provided clinical experiences supervised by occupational therapy personnel in adult and geriatric settings (e.g. clinics, hospitals, nursing homes, home health agencies) to explore issues concerning occupational therapy intervention. Placements are designed to enhance classroom learning through hands-on experiences. Students will document interactions in structured assignments.

Prereq: OT 602

Coreq: OT 603

OT 560 Client Advocacy/Public Policy  CREDITS: 3

This course will introduce the student to various governmental agencies and regulations impacting the practice of healthcare today. Understanding how a bill becomes law and effective lobbying techniques will be explored. How to advocate for a client in various settings and situations will be assessed.

OT 599 Independent Study in Occupational Therapy  CREDITS: 1

This course offers students the opportunity to study special topics within the practice of occupational therapy based upon the student’s needs and interests. This course is repeatable.

OT 602 Occupations through the Lifespan I  CREDITS: 4

This course incorporates knowledge, skills, methods, attitudes and judgments required to
participate in OT programs in pediatrics. Lectures and lab activities will teach OT students to explore and study methods for evaluation, interpretation, and treatment techniques with the pediatric population in a variety of settings. Culture, politics, ethics, legal, socioeconomic and spiritual issues/needs will be addressed through case study, diagnosis related research, evaluation/assessment research and treatment strategies.

Prereq: OT 560
Coreq: OT 552 and OT 556 and OT 602L

**OT 602L  Occupations through the Lifespan I Lab**  CREDITS: 0
Coreq: OT 602

**OT 603  Occupations through the Lifespan II**  CREDITS: 4
This course reviews theories of aging, occupational therapy specific assessment tools and intervention techniques, and issues of family dynamics. This course also focuses on patient and family education with an emphasis on a multiplicity of diagnoses. Students will learn to understand the attitudes, beliefs and values of the healthy and non-healthy aging population and relationships within their communities (socioeconomic, spiritual, cultural).

Prereq: OT 602
Coreq: OT 553 and OT 557 and OT 603L

**OT 603L  Occupations through the Lifespan II Lab**  CREDITS: 0
Coreq: OT 603

**OT 610  Clinical Reasoning**  CREDITS: 3
This course challenges the student to view, develop, and use clinical reasoning skills on both the micro (individual consumer) and the macro (community) levels. Content addresses case study practice situations in concert with actual clients with whom they may be working during their fieldwork. Each student will recognize and prioritize problems and the full range of potential solutions from the client's point of view while considering the ramifications of different courses of action. Through classroom discussions and onsite interviews with clients and agency representatives, students will analyze pertinent issues to understand client outcomes.

**OT 615  Client Care Techniques**  CREDITS: 3
The student will develop skills in client care techniques used in occupational therapy interventions. These interventions include self-care, occupational tasks of daily living, orthoses, prosthetics, adaptive devices, adaptation principles and applications for a myriad of needs and settings. Theoretical frames of reference and a wide range of assessment and treatment tools and techniques are addressed. This course affords the student opportunities to engage in the initiation of and practice with assessment tools and adaptive intervention techniques.
Coreq: OT 615L

**OT 615L  Client Care Techniques Lab**  CREDITS: 0
The student will develop skills in client care techniques used in occupational therapy interventions. These interventions include self-care, occupational tasks of daily living, orthoses, prosthetics, adaptive devices, adaptation principles and applications for a myriad of needs and settings. Theoretical frames of reference and a wide range of assessment and treatment tools and techniques are addressed. This course affords the student opportunities to engage in the initiation of and practice with assessment tools and
adaptive intervention techniques.

Coreq: OT 615

**OT 629  Research Project Decisions I**  CREDITS: 1

This course is the second of a four part series in which the student designs and conducts the research project.

Prereq: OT 502

**OT 630  Research Project Design**  CREDITS: 2

This course introduces the student to the process of designing a research study. The student will identify a topic of interest, develop a research question, conduct a literature review, and identify the appropriate method to address the research question.

Prereq: IDS 502

**OT 631  Research Project Decisions**  CREDITS: 3

This course enables the student to participate in the process of designing a research study. The student will identify their topic of interest, develop their research question, conduct an extensive literature review, and identify the most appropriate method to collect the data required to answer their research question.

**OT 632  Research Project Decisions II**  CREDITS: 2

This course is the second of a four part series in which the student designs and conducts the research project.

Prereq: OT 629

**OT 635  Program Development**  CREDITS: 3

This course prepares the student to develop, alter or enhance OT programs in a wide variety of practice settings. Significant program designs, methods to implement these designs, and procedures for their evaluation from a business perspective will be explored. The student will design services that address cultural, political, ethical, legal, socioeconomic, and spiritual issues.

**OT 640  Topics in Administration**  CREDITS: 2

This course will introduce the student to elements of the business world as it relates to the delivery of occupational therapy services. Using the principles of business management, the student will be challenged to critically think in the role of a manager of a clinic of his/her own design.

Prereq: OT 635

**OT 650  Research Project Implementation**  CREDITS: 3

In this course the student will implement the plan for the research study developed in OT 630. The student will fine-tune his/her design, collect data, analyze and interpret results, and present findings.

Prereq: OT 630

**OT 670  Occupational Fitness for Life**  CREDITS: 2

This course will introduce the student to the concept of a healthy lifestyle through the lifespan. The importance of nutrition and exercise will be examined. Occupations for all age groups to engage in for leisure and exercise will be explored. Students will critique their own lifestyle and balance of work, rest and play. The concept of wellness will be assessed throughout the lifespan exploring the effects on an individual's occupations.
when faced with the expected difficulties presented by aging, illness, and/or infirmities.
Coreq: OT 555

**OT 682 OT Fieldwork II-A**  
**CREDITS:** 8

The student uses accumulated academic, laboratory, and Level I fieldwork experiences in progression toward entry level occupational therapy competence. The student engages in clinical activities in facilities providing occupational therapy services to varied individuals, groups and populations across the life span. Provides increased opportunities to demonstrate skills in clinical reasoning and professionalism. Evaluation is pass/fail.
Coreq: OT 692

**OT 692 OT Fieldwork II-B**  
**CREDITS:** 8

The student uses accumulated academic, laboratory, and Level I fieldwork experiences in progression toward entry level occupational therapy competence. The student engages in clinical activities in facilities providing occupational therapy services to varied individuals, groups and populations across the life span. Provides increased opportunities to demonstrate skills in clinical reasoning and professionalism. Evaluation is pass/fail.
Coreq: OT 682

**OT 695 Professional Seminar**  
**CREDITS:** 1

Students meet in the academic setting to discuss essential professional activities: resume writing, employment interviewing, contract negotiation, issues of supervision, and registry examination preparation.
Prereq: OT 692

**OTA 110 Human Movement for Occupation I**  
**CREDITS:** 1

This course introduces students to the following foundations of human movement: osteology, arthrology, myology, neurology, arthrokinematics, and biomechanics. Students begin to analyze occupational performance based on their knowledge of human body systems.

**OTA 120 Foundations of the Profession I**  
**CREDITS:** 3

This course provides an orientation to the profession of occupational therapy in the context of current and emerging practice areas. An overview of the history, philosophy, ethics, tenets, and core values of the profession is presented. Students are introduced to the concepts of theory, models, frames of reference, and client-centered practice.

**OTA 130 Human Movement for Occupation II**  
**CREDITS:** 3

This course provides students with a broader perspective into the foundations of human movement. Students apply foundation topics presented in Human Movement for Occupation I to specific muscles of the human body, and perform in-depth occupational analysis. Basic pathological conditions related to each area of the body are presented.
Prereq: OTA 110
Coreq: OTA 130L and OTA 140

**OTA 130L Human Movement for Occupation II Lab**  
**CREDITS:** 0

This course provides students with a broader perspective into the foundations of human movement. Students apply foundation topics presented in Human Movement for Occupation I to specific muscles of the human body, and perform in-depth occupational analysis. Basic pathological conditions related to each area of the body are presented.
Coreq: OTA 130
OTA 140  Foundations of the Profession II  CREDITS:  3
This course builds on topics presented in Foundations of the Profession I. Additional topics include basic patient care skills, evidence-based practice, activity analysis, management, professional development, and the application of the current Occupational Therapy Practice Framework: Domain and Process (OTPF). The practice environment, the roles of health care professionals, and a variety of influences on occupational performance are examined and discussed. The impact of culture, learning styles, and self-awareness is also explored.
Prereq:  OTA 120
Coreq:  OTA 130

OTA 170  Behavioral Health - Principles and Techn  CREDITS:  3
In this course, students learn the roles of occupational therapy practitioners working with individuals who have behavioral health challenges. Frames of reference, basic group process skills, therapeutic use of self, and various intervention techniques are presented as they apply across settings and populations.
Prereq:  (OTA 120 and PSY 120) or (PSY 101 and PSY 220)
Coreq:  OTA 170C and OTA 170L

OTA 170C  Behavioral Health Fieldwork - Level I  CREDITS:  1
In this course, students observe and interact with individuals with behavioral health challenges. Students are assigned to diverse settings that provide a variety of behavioral health services. On-site supervision is provided at each setting. In addition to observation, students are provided with opportunities to develop communication skills and professional behaviors.
Coreq:  OTA 170

OTA 170L  Behavioral Health - Principles Techn Lab  CREDITS:  0
In this course, students learn the roles of occupational therapy practitioners working with individuals who have behavioral health challenges. Frames of reference, basic group process skills, therapeutic use of self, and various intervention techniques are presented as they apply across settings and populations.
Coreq:  OTA 170

OTA 201L  Therapeutic Media Lab  CREDITS:  1
This course examines therapeutic use of purposeful and meaningful occupations with diverse client populations. Students learn how to design, select, and complete goal directed client-centered activities.
Prereq:  OTA 140

OTA 203  Pathologic Conditions - Effects on Occup  CREDITS:  2
This course presents selected pathological conditions across the lifespan and their effects on occupational performance. Students explore the holistic process and begin to explore the role of occupational therapy during intervention.
Prereq:  OTA 130

OTA 220  Pediatrics - Principles and Techniques  CREDITS:  4
This course examines the developmental process from birth to adolescence. Students explore pediatric diagnoses and related effects on development and occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging
intervention processes and techniques.
Prereq:  OTA 201L and OTA 203
Coreq:   OTA 220C and OTA 220L

OTA 220C  Pediatric Fieldwork - Level I  CREDITS:  1
In this course, students observe and provide hands-on services in pediatric occupational therapy settings, under the supervision of experienced occupational therapy personnel and other healthcare practitioners. Students continue to develop communication skills and professional behaviors through interactions with clients, families, healthcare practitioners, and facility staff.
Prereq:  OTA 201L and OTA 203
Coreq:   OTA 220

OTA 220L  Pediatrics - Principles and Techniques L  CREDITS:  0
This course examines the developmental process from birth to adolescence. Students explore pediatric diagnoses and related effects on development and occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.
Coreq:   OTA 220

OTA 235  Physical Dysfunction - Princ/Techniques  CREDITS:  5
This course examines the occupational performance of young adult to geriatric clients with physical dysfunctions. Students explore a variety of medical conditions and related effects on occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.
Prereq:  OTA 201L and OTA 203
Coreq:   OTA 235C and OTA 255

OTA 235C  Adult/Geriatric Fieldwork - Level I  CREDITS:  1
In this course, students observe and provide hands-on services in adult/geriatric occupational therapy settings, under the supervision of experienced occupational therapy personnel and other healthcare practitioners. Students continue to develop communication skills and professional behaviors through interactions with clients, families, healthcare practitioners, and facility staff.
Prereq:  OTA 201L and OTA 203
Coreq:   OTA 235

OTA 235L  Physical Dysfunction - P&T Lab  CREDITS:  0
This course examines the occupational performance of young adult to geriatric clients with physical dysfunctions. Students explore a variety of medical conditions and related effects on occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.

OTA 255  Assistive Technology  CREDITS:  2
This course provides students multiple opportunities to explore and experience the gamut of technology as it applies to Occupational Therapy intervention and practice. Students learn to grade and adapt the environment, tools, materials, occupations, and
interventions to reflect the changing needs of the client.

Prereq: OTA 201L and OTA 203
Coreq: OTA 235

**OTA 255L Assistive Technology Lab**

This course provides students multiple opportunities to explore and experience the gamut of technology as it applies to Occupational Therapy intervention and practice. Students learn to grade and adapt the environment, tools, materials, occupations, and interventions to reflect the changing needs of the client.

**OTA 270C Fieldwork - Level II-A**

In this course, students develop the skills of a competent, entry-level, generalist occupational therapy assistant (OTA). Students have the opportunity to provide Occupational Therapy (OT) services under the supervision of an experienced OT practitioner. The fieldwork experience is designed to promote clinical reasoning appropriate to the occupational therapy assistant role and to develop professionalism and competence in career responsibilities.

Prereq: OTA 255
Coreq: OTA 285

**OTA 271C Fieldwork - Level II-B**

In this course, students develop the skills of a competent, entry-level, generalist occupational therapy assistant (OTA). Students have the opportunity to provide Occupational Therapy (OT) services under the supervision of an experienced OT practitioner. The fieldwork experience is designed to promote clinical reasoning appropriate to the occupational therapy assistant role and to develop professionalism and competence in career responsibilities.

Prereq: OTA 255

**OTA 285 Professional Seminar**

This capstone course prepares students for the national certification exam and the application process for state licensure. This course also addresses students’ readiness for entry-level practice, responsibilities to the profession, and the requirements for maintaining professional credentials.

Prereq: OTA 255
Coreq: OTA 270C

**PBH 350 Principles Public Health**

A comprehensive introduction to public health concepts and practice is provided by examining the philosophy, purpose, history, organization, functions, tools, activities and results of public health practice at the national, state, and community levels. Important health issues and problems facing the public health system are addressed.

**PBH 370 Fundamentals of Epidemiology**

Students focus on the concepts and methods of epidemiology and its application to public health and clinical practice. The epidemiological approach is utilized to understand disease mechanisms, measure population health, and develop interventions designed to modify and improve health. The application of basic epidemiology measures is used to draw appropriate inferences from epidemiological data.

**PBH 399 Special Topics in Public Health**

Students engage in supervised study related to public health. The student prepares a
written report on a public health topic affecting a population, and presents the report findings in an online format. Prior to enrolling in the course, the student must receive approval from the Health Sciences Program Director.

**PBH 415  Population Health Management**  
**CREDITS:** 3

Students examine the definition, measurement, economic concepts, ethics, policies, and issues in population health management. The multiple determinants of health including medical care, socioeconomic status, physical environment, individual behavior and their interactions are discussed. Students explore the various theories of health promotion and clinical prevention and the importance of providing appropriate healthcare that is sensitive to diverse populations.

**PBH 425  Environmental Health**  
**CREDITS:** 3

Students examine health issues, scientific understanding of causes, and approaches to control environmental health problems. Topics include: how the human body reacts to environmental agents; physical, chemical, and biological agents of environmental contamination; solid and hazardous waste; risk management; scientific basis for policy decisions; and emerging global environmental health problems.

**PBH 499  Special Topics in PBH: Interventions**  
**CREDITS:** 1

Students engage in a supervised study related to public health. The student develops a public health intervention, prepares a written proposal, and presents the proposed intervention in an online format. Prior to enrolling in the course, the student must receive approval from the Health Sciences Program Director.

**PHA 506  Clinical Medicine I**  
**CREDITS:** 4

This course is the first in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe, and patient-centered management in the delivery of primary care to patients. An organ system approach will be used in conjunction with the MSPA course of study. Each disease or disorder will be analyzed in terms of epidemiology, pathophysiology, genetics and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to the clinical application of information.

**PHA 507  Clinical Medicine II**  
**CREDITS:** 4

This course is the second in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe and patient-centered management in the delivery of primary care to patients. An organ system approach is used in conjunction with the MSPA course of study. Each disease or disorder is described in terms of the epidemiology, pathophysiology, genetic and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to clinical application of information.

**Prereq:** PHA 506

**PHA 508  Clinical Medicine III**  
**CREDITS:** 4

This course is the third in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective,
safe and patient-centered management in the delivery of primary care to patients. An organ system approach is used in conjunction with the MSPA course of study. Each disease or disorder is described in terms of the epidemiology, pathophysiology, genetic and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to clinical application of information.

Prereq: PHA 507

**PHA 509 Clinical Medicine IV**  
**CREDITS:** 2

This course is the fourth in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe and patient-centered management in the delivery of primary care to patients. An organ system approach is used in conjunction with the MSPA course of study. Each disease or disorder is described in terms of the epidemiology, pathophysiology, genetic and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to clinical application of information.

Prereq: PHA 508

**PHA 514 Clinical Pathophysiology I**  
**CREDITS:** 2

This is the first in a sequence of three classes designed to provide a conceptual understanding of pathophysiology as a basis for future clinical practice. Building on knowledge from normal anatomy and physiology, the course presents pathophysiological principles such as clinical manifestations and alterations in physiological functions in organ systems. Analysis and interpretation of common laboratory testing will be examined relative to the pathophysiological principles and concepts. The course follows an organ system approach in conjunction with the MSPA plan of study.

Prereq: PHA 514

**PHA 515 Clinical Pathophysiology II**  
**CREDITS:** 2

This is the second in a sequence of three classes designed to provide a conceptual understanding of pathophysiology as a basis for future clinical practice. Building on knowledge from normal anatomy and physiology, the course presents pathophysiological principles such as clinical manifestations and alterations in physiological functions in organ systems. Analysis and interpretation of common laboratory testing will be examined relative to the pathophysiological principles and concepts. The course follows an organ system approach in conjunction with the MSPA plan of study.

Prereq: PHA 514

**PHA 516 Clinical Pathophysiology III**  
**CREDITS:** 2

This is the third in a sequence of three classes designed to provide a conceptual understanding of pathophysiology as a basis for future clinical practice. Building on knowledge from normal anatomy and physiology, the course presents pathophysiological principles such as clinical manifestations and alterations in physiological functions in organ systems. Analysis and interpretation of common laboratory testing will be examined relative to the pathophysiological principles and concepts. The course follows an organ system approach in conjunction with the MSPA plan of study.

Prereq: PHA 515
PHA 525  Clinical Skills I  CREDITS: 4
This course is the first of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq:  PHA 525L

PHA 525L  Clinical Skills I Lab  CREDITS: 0
This course is the first of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq:  PHA 525

PHA 526  Clinical Skills II  CREDITS: 4
This course is the second of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Prereq:  PHA 525
Coreq:  PHA 526L

PHA 526L  Clinical Skills II Lab  CREDITS: 0
This course is the second of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq:  PHA 526

PHA 527  Clinical Skills III  CREDITS: 2
This course is the third of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Prereq:  PHA 526
Coreq:  PHA 527L

PHA 527L  Clinical Skills III Lab  CREDITS: 0
This course is the third of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq:  PHA 527
PHA 529  Clinical Skills IV  CREDITS:  4
This course is the fourth of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Prereq:  PHA 527
Coreq:  PHA 529L

PHA 529L  Clinical Skills IV Lab  CREDITS:  0
This course is the fourth of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq:  PHA 529

PHA 530  Research and Evidence - Based Practice  CREDITS:  3
In this course, students focus on utilization of new knowledge and evidence to provide quality health care, initiate change and improve healthcare practice. Emphasis is placed on problem identification, evaluation of evidence, and awareness of patient management and practice outcomes. Students develop skill in accessing, assessing and applying current research to healthcare practice.

PHA 533  Behavioral Medicine I  CREDITS:  2
This course is designed to foster the development and application of knowledge concerning the interrelationships of health, illness, culture and behavior for prevention, diagnosis, treatment, and health promotion for both the individual and the community.

PHA 534  Behavioral Medicine II  CREDITS:  1
This course is the second of two courses designed to foster the development and application of knowledge concerning the interrelationship of health, illness, culture, and behavior for disease prevention, diagnosis, treatment, and health promotion. Behavior Medicine II focuses on public health concerns, health policy, and disease prevention and health promotion guidelines across the lifespan.
Prereq:  PHA 533

PHA 538  Research & Evidence-Based Practice  CREDITS:  2
In this course, students focus on utilization of new knowledge and evidence to provide quality healthcare, initiate change and improve healthcare practice. Emphasis is placed on problem identification, evaluation of evidence, and awareness of patient management and practice outcomes. Students develop skill in accessing, assessing and applying current research to healthcare practice.

PHA 541  Clinical Pharmacotherapeutics I  CREDITS:  2
This is the first in a sequence of three courses designed to provide a solid foundation in pharmacokinetics and pharmacological and non-pharmacological interventions. This course combines the disciplines of traditional pharmacology, pharmacokinetics, and clinical pharmacotherapeutics. The course will enable PA students to acquire and refine the knowledge and skills necessary for the effective, safe and cost-effective management in the delivery of patient care. Included in this course are the principles of pharmacokinetics and pharmacodynamics; the mechanism of action, toxicities, and
interactions; and medical therapeutics of specific drugs and drug groups. This course will follow an organ system approach in conjunction with the MSPA plan of study. This course fulfills a portion of the State of Virginia's requirements for Physician Assistants to apply for prescriptive authority.

**PHA 542  Clinical Pharmacotherapeutics II  CREDITS:  2**

This is the second in a sequence of three courses designed to provide a solid foundation in pharmacokinetics and pharmacological and non-pharmacological interventions. This course combines the disciplines of traditional pharmacology, pharmacokinetics, and clinical pharmacotherapeutics. The course will enable PA students to acquire and refine the knowledge and skills necessary for the effective, safe and cost-effective management in the delivery of patient care. Included in this course are the principles of pharmacokinetics and pharmacodynamics; the mechanism of action, toxicities, and interactions; and medical therapeutics of specific drugs and drug groups. This course will follow an organ system approach in conjunction with the MSPA plan of study. This course fulfills a portion of the State of Virginia's requirements for Physician Assistants to apply for prescriptive authority.

Prereq:  PHA 541

**PHA 545  Clinical Pharmacotherapeutics III  CREDITS:  1**

This is the third in a sequence of three courses designed to provide a solid foundation in pharmacokinetics and pharmacological and non-pharmacological interventions. This course combines the disciplines of traditional pharmacology, pharmacokinetics, and clinical pharmacotherapeutics. The course will enable PA students to acquire and refine the knowledge and skills necessary for the effective, safe and cost-effective management in the delivery of patient care. Included in this course are the principles of pharmacokinetics and pharmacodynamics; the mechanism of action, toxicities, and interactions; and medical therapeutics of specific drugs and drug groups. This course will follow an organ system approach in conjunction with the MSPA plan of study.

Prereq:  PHA 541

**PHA 551  Introduction to Master's Project I  CREDITS:  1**

In this course, students will continue to apply the knowledge learned in PHA 530 towards the completion of a Master's Project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.

**PHA 552  Introduction to Master's Project II  CREDITS:  1**

In this course, students will continue to apply the knowledge learned in PHA 551 towards the completion of a Master's project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.

Prereq:  PHA 551
PHA 553  **Introduction to Master's Project III**  CREDITS: 1

In this course, students will continue to apply the knowledge learned in PHA 552 towards the completion of a Master's Project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.

Prereq: PHA 552

PHA 554  **Introduction to Master's Project IV**  CREDITS: 1

In this course, students will continue to apply the knowledge learned in PHA 553 towards the completion of a Master's Project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.

Prereq: PHA 553

PHA 575  **Independent Study**  CREDITS: 1

This course is designed to enable Physician Assistant students to remediate course material. The material to be covered in this course will be determined by the course instructor based on the areas of weakness in the MSPA course and will be stated in the expanded course syllabus.

PHA 601  **Internal Medicine I Clinical Rotation**  CREDITS: 3

This four week required rotation is designed to provide the student with an understanding of internal medicine as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the internal medicine setting.

PHA 602  **Internal Medicine II Clinical Rotation**  CREDITS: 3

This four week required rotation is a continuation of PHA 601 and is designed to provide the student with an understanding of internal medicine as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the internal medicine setting.

PHA 603  **Primary Care I Clinical Rotation**  CREDITS: 3

This required rotation is designed to provide the student with an understanding of primary care as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the primary care setting.

PHA 604  **Primary Care II Clinical Rotation**  CREDITS: 3

This four week required rotation is a continuation of PHA 603 and provides the student with an understanding of primary care as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention,
assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the primary care setting.

**PHA 605 Pediatric Medicine Clinical Rotation**  
**CREDITS:** 3

This four week required rotation is designed to provide the student with an understanding of pediatrics as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the pediatric setting.

**PHA 606 Women’s Health Clinical Rotation**  
**CREDITS:** 3

This four week required rotation is designed to provide the student with an understanding of common obstetrics, gynecology and other women’s health specific conditions as practiced in the hospital or non-hospital outpatient setting. The rotation will provide students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in practice.

**PHA 607 General Orthopedics Clinical Rotation**  
**CREDITS:** 3

This four week required rotation is designed to provide the student with an understanding of general orthopedics as practiced in the inpatient or outpatient setting. The rotation will provide students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the orthopedic setting.

**PHA 608 General Surgery Clinical Rotation**  
**CREDITS:** 3

This four week required rotation is conducted in both clinical and hospital settings. The rotation is designed to provide the student with an understanding of general surgery as practiced in the hospital setting. The rotation will provide students an opportunity to develop skills in the diagnosis, treatment, and management of both the inpatient and outpatient surgical patient.

**PHA 609 Psychiatry/Behavioral Med Clin Rotation**  
**CREDITS:** 3

This four week required rotation is designed to provide the student with an understanding of psychiatry as practiced in the inpatient or outpatient setting. The rotation will provide students an opportunity to develop skills in the assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the psychiatry setting.

**PHA 611 Emergency Medicine Clinical Rotation**  
**CREDITS:** 3

This four week required rotation is designed to provide the student with an understanding of emergency medicine as practiced in a hospital-based emergency department. The rotation will provide students an opportunity to develop skills in the assessment, diagnosis, management, and treatment of common emergency, urgent, and non-urgent medical problems that present to the emergency room.

**PHA 612 Elective Clinical Rotation I**  
**CREDITS:** 3

This four week elective rotation is designed to provide the student an opportunity to pursue an area of personal interest, including medical subspecialties, medical education, health administration, and research. The student may also use this rotation to strengthen skills in a required area. The final decision on elective course content will be at the discretion of the PA Program Clinical Coordinator.

**PHA 613 Elective Clinical Rotation II**  
**CREDITS:** 3

This four week elective rotation is designed to provide the student an opportunity to
pursue an area of personal interest, including medical subspecialties, medical education, health administration, and research. The student may also use this rotation to strengthen skills in a required area. The final decision on elective course content will be at the discretion of the PA Program Clinical Coordinator.

**PHA 621  Master's Capstone**  
**CREDITS: 4**

This course provides each student the opportunity to formally present the results of his/her individual EBM research completed during PHA 551-554. In addition, the course will provide an intensive review of common diseases and conditions of organ systems as outlined in the National Commission on the Certification of Physician Assistant's content blueprint for the Physician Assistant National Certification Exam. Knowledge and skills related to patient history and physical, diagnostics, differential diagnosis, clinical therapeutics, health maintenance and scientific concepts will also be reviewed. Program faculty will facilitate self-directed learning approaches to exam preparation.

Prereq: PHA 554

**PHL 115  Foundations of Ethics**  
**CREDITS: 3**

This course provides an introduction to the main branches of the philosophical field of ethics. Content consists of the main theories and debates in (1) metaethics, (2) normative ethics, and (3) applied/practical ethics including bioethics. Students become familiar with various ethical positions and perspectives as well as the arguments given in support of those views. Additionally, students learn to think critically about arguments and positions within theoretical and practical ethics.

**PHL 116  Introduction to Philosophy**  
**CREDITS: 3**

Students receive an overview of the enduring issues and problems in philosophy as they have been formulated and evaluated in the works of ancient, modern, and contemporary philosophers from all traditions.

**PHL 215  Bioethics**  
**CREDITS: 3**

This course focuses on the field of bioethics, including the study of theoretical approaches in bioethics, principles and historical precedents in bioethics, legal aspects, and methods applicable to practical ethical decision making regarding bioethical issues, dilemmas, and problems. Examination of ethical and legal issues in landmark and contemporary cases build a foundation for clinical application.

**PHL 320  World Religions**  
**CREDITS: 3**

In this course students develop knowledge of the diversity of world religions, the origins of religions and an understanding of the basic tenants of the major religions. In keeping with the multicultural focus of this course, students are expected to engage in a cross-cultural analysis and focus on contemporary features of selected world religions.

Prereq: (IDS 215 or SOC 213)

**PHY 110  Physics for Health Sciences**  
**CREDITS: 4**

This one semester course is designed as an introduction to underlying physical principles applied in the study the human body. Students of health sciences use mechanics, energy conservation, and the study of liquids and gases to model skeletal-muscular interactions, circulation, and respiration. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.

Coreq: PHY 110L

**PHY 110L  Physics for Health Sciences Lab**  
**CREDITS: 0**

This one semester course is designed as an introduction to underlying physical principles
applied in the study the human body. Students of health sciences use mechanics, energy conservation, and the study of liquids and gases to model skeletal-muscular interactions, circulation, and respiration. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.

Coreq: PHY 110

**PHY 201  General Physics I**  CREDITS: 4

This course is the first of a two-semester lecture and laboratory study of general physics. The course is designed to present the fundamental principles of physics with emphasis on classical mechanics, gravitation, special relativity and elements of quantum mechanics. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in experimentation that measure basic principles of physics. The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.

Prereq: MTH 165 or MTH 201 or MTH 170

Coreq: PHY 201L

**PHY 201L  General Physics I Laboratory**  CREDITS: 0

The laboratory will require students to be involved in experimentation that measure basic principles of physics. The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.

Coreq: PHY 201

**PHY 202  General Physics II**  CREDITS: 4

This course is the second of a two-semester lecture and laboratory study of general physics. The course is a continuation of the topics considered during the first semester of physics. Emphasis will be placed on an introduction to the basic concepts and fundamental principles of electricity, magnetism, optics, wave mechanics and modern physics. The laboratory will require students to be involved in experimentation that measure basic principles of physics as defined during lectures. The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.

Prereq: PHY 201

Coreq: PHY 202L

**PHY 202L  General Physics II Laboratory**  CREDITS: 0

The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.

Coreq: PHY 202

**PLA 200  Prior Learning Assessment Seminar**  CREDITS: 1

This course is designed to provide a foundation for students pursuing prior learning assessment (PLA) credit for learning experiences that have taken place outside of a college course. Emphasis is placed on creating a portfolio that reflects the learning and experiences unique to each student, the student's professional, educational, and experiential history. This course is pass/fail and is repeatable.

Prereq: ENG 111
PSY 101  **Introduction to Psychology**  CREDITS:  3
This course provides an introductory study of psychology with a broad knowledge base that includes psychological theory, research, and historical trends. This survey of psychology acquaints students with the major concepts and terminology of the discipline, including the biopsychosocial mode of behavior. Emphasis is placed on learning process, perception, biological bases of behavior, personality and social psychology. Particular focus is placed on motives and emotions as they affect human behavior and on individual differences. This course is not available for students who have completed PSY 120.

PSY 110  **Introduction Field of Health Psychology**  CREDITS:  1
This course facilitates a general understanding of Health Psychology (HPSY) as a field of study. Students are introduced to and document knowledge, skills, and abilities as appropriate to developing and demonstrating the attainment of student learning outcomes in Health Psychology.

PSY 120  **Intro and Developmental Psychology**  CREDITS:  4
This course combines an introductory study of psychology with an overview and general understanding of how the basic principles of psychology relate to human growth and development over the entire lifespan. The course addresses the major biopsychosocial variables that contribute to an individual's development, the ability to process information, concepts of learning and memory, and aspects that contribute to the development of personality. This course is not available for students who have completed PSY 101 and/or PSY 220.

PSY 199  **Supervised Study in Health Psychology**  CREDITS:  3
Supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course involves extensive readings and/or research under the supervision of a faculty member, and includes written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. This course may be repeated once for a total of 6 credits.

PSY 215  **Introductory Fieldwork**  CREDITS:  2
Students reflect upon their observation of health psychology work occurring in the field. Students complete writing assignments concerning their observational placements to provide further exposure to the clinical field of health psychology. Permission from the Program Director is necessary to enroll in this course.
Prereq:  PSY 240 or PSY 235  
Coreq:  PSY 215C

PSY 215C  **Introductory Fieldwork Placement**  CREDITS:  1
Students participate in off-campus observation of fieldwork involving the principles and applications of health psychology.
Coreq:  PSY 215

PSY 220  **Lifespan Development**  CREDITS:  3
This course is designed to study the basic biopsychosocial principles of human growth and development across the lifespan. The interaction between biological processes and psychological functioning is emphasized. The course encompasses research in human development, the effects of heredity, childbirth, preschool development, the challenges of adolescence, psychosocial interactions in adulthood, and issues involved in death and dying. This course may not be taken by students who have completed PSY 120.
Prereq:  PSY 101
PSY 230  Positive Psychology  CREDITS: 3
This course explores the concepts, historical background, and empirical grounding of positive psychology, as well as the techniques and exercises that are designed to enhance well-being. Positive Psychology is the study of how human beings prosper in the face of adversity. The goals of positive psychology include identifying and enhancing the human strengths and virtues that make life worth living and allow individuals and communities to thrive.
Prereq: PSY 101 or PSY 120

PSY 235  Social Psychology  CREDITS: 3
The student examines and applies theory and research concerning individuals and groups, including social interactions and processes, social change and stability, and development and change of attitudes. The effects of social settings on individual beliefs, attitudes, and behaviors are addressed, with an emphasis on understanding social determinants.
Prereq: PSY 101 or PSY 120

PSY 240  Abnormal Psychology  CREDITS: 3
This course examines the nature, causes, and dynamics of abnormal behavior. Major psychological theories are examined and applied to psychological disorders, with special emphasis on understanding the biopsychosocial model. Etiology, symptoms, and treatments of the major categories of mental disorders are also covered.
Prereq: (PSY 101 or PSY 120)

PSY 250  Health Psychology  CREDITS: 3
This course covers the theoretical, empirical and clinical aspects of health psychology and the interaction between behavior, health, and illness. The relationship of health psychology to other areas of psychology and health are discussed. Students apply key concepts of health psychology to enhance health behaviors.
Prereq: (PSY 101 or PSY 120)

PSY 299  Supervised Study in Health Psychology  CREDITS: 3
These supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course will involve extensive readings and/or research under the supervision of a faculty member, and will include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. Each course is a variable credit course that can be repeated once for a total of 6 credits.

PSY 300  Career Options in Psychology  CREDITS: 1
The student examines and applies theory and research concerning individuals and groups, including social interactions and processes, social change and stability, and development and change of attitudes. The effects of social settings on individual beliefs, attitudes, and behaviors are addressed, with an emphasis on understanding social determinants.
Prereq: ENG 112

PSY 310  Research Methods in Psychology  CREDITS: 3
This course provides an introduction to psychological research techniques and methodology. Topics covered include research design, data collection and interpretation, evaluation of research findings, and legal and ethical issues. Concepts are illustrated with examples of research on various topics in psychology. Electronic databases and
access to empirical findings are also covered.

Prereq: (PSY 101 or PSY 120) and ((MTH 301 or MTH 210))

Coreq: PSY 310L

**PSY 310L  Research Methods Laboratory**  
**CREDITS: 1**

Students in this course apply the knowledge and skills learned in the corequisite course concerning psychological research techniques and methodology. In addition, students learn how to use SPSS for data management and statistical analyses.

Coreq: PSY 310

**PSY 335  Social Psychology of Health & Wellness**  
**CREDITS: 3**

This course includes detailed examination and application of theory and research concerning individuals and groups, including social interactions and processes, social change and stability, and development and change of attitudes. The effects of social settings on individual beliefs, attitudes, and behaviors are addressed, with an emphasis on understanding social determinants and their relation to health and wellness behaviors.

Prereq: PSY 310

Coreq: PSY 335L

**PSY 335L  Social Psychology Laboratory**  
**CREDITS: 1**

Students in this course apply knowledge and skills learned in the corequisite course concerning psychological research techniques and methodology. In addition, students enhance their knowledge of data management and statistical analyses.

Coreq: PSY 335

**PSY 340  Health Behavior Change Methods**  
**CREDITS: 4**

The student evaluates and applies biopsychosocial theories and research concerning public and individual health management and treatment. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition the student enhances knowledge of data management and statistical analyses. This course contains a lab component.

Prereq: IDS 254

Coreq: PSY 340L

**PSY 340L  Health Behavior Change Laboratory**  
**CREDITS: 0**

The student evaluates and applies biopsychosocial theories and research concerning public and individual health management and treatment. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition the student enhances knowledge of data management and statistical analyses. This course contains a lab component.

Coreq: PSY 340

**PSY 345  Community Psychology**  
**CREDITS: 3**

In this course, students explore and evaluate theory, research, historical foundations, and methods of community psychology. Students analyze potential relevance of community psychology for addressing major social and health problems. Students examine existing empirical knowledge base, including effective modes of community-based intervention.

Prereq: PSY 310

Coreq: PSY 345L
PSY 345L  Community Psychology Laboratory  CREDITS:  1
Students in this course apply the knowledge and skills learned in the corequisite course concerning psychological research techniques and methodology. In addition, students enhance their knowledge of data management and statistical analyses.
Coreq:  PSY 345

PSY 355  Health Psychology  CREDITS:  4
The student examines and applies theoretical, empirical and clinical aspects of health psychology and the interaction between behavior, health, and illness. The relationship of health psychology to other areas of psychology and health is discussed. The student applies key concepts of health psychology to enhance health behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Prereq:  IDS 254
Coreq:  PSY 355L

PSY 355L  Health Psych Laboratory  CREDITS:  0
The student examines and applies theoretical, empirical and clinical aspects of health psychology and the interaction between behavior, health, and illness. The relationship of health psychology to other areas of psychology and health is discussed. The student applies key concepts of health psychology to enhance health behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Coreq:  PSY 355

PSY 380  Learning and Memory  CREDITS:  4
The student examines and applies the major theories and research concerning learning, memory, and attention. The experimental study of conditioning, mental representation, memory systems, and knowledge acquisition are addressed. The student applies these theories and research to health and wellness behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Prereq:  IDS 254
Coreq:  PSY 380L

PSY 380L  Learn and Memory Laboratory  CREDITS:  0
The student examines and applies the major theories and research concerning learning, memory, and attention. The experimental study of conditioning, mental representation, memory systems, and knowledge acquisition are addressed. The student applies these theories and research to health and wellness behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Coreq:  PSY 380
**PSY 399  Supervised Study in Health Psychology  CREDITS: 3**

These supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course will involve extensive readings and/or research under the supervision of a faculty member, and will include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. Each course is a variable credit course that can be repeated once for a total of 6 credits.

**PSY 401  Senior Research I  CREDITS: 3**

The student collaborates with a faculty member and contributes to an ongoing psychological research program. The student presents and defends that contribution before an open panel of students, faculty, and/or staff.

Prereq: IDS 254

**PSY 402  Senior Research II  CREDITS: 3**

The student continues the research collaboration begun in PSY 401, including appropriate data collection, analysis, and manuscript preparation. The student presents and defends the project before an open panel of students, faculty, and/or staff.

Prereq: PSY 401

**PSY 415  Senior Fieldwork I  CREDITS: 2**

The student meets weekly with course instructor to synthesize new experiences from field placement with prior knowledge. The student begins the capstone project integrating theory, research, and clinical application of knowledge.

Prereq: PSY 215C and PSY 355

Coreq: PSY 415C

**PSY 415C  Field Placement I  CREDITS: 2**

Students participate in off-campus supervised fieldwork placements involving the principles and applications of health psychology.

Coreq: PSY 415

**PSY 425  Senior Fieldwork II  CREDITS: 2**

Students continue their field placement in the second semester. Students meet weekly with course instructor to complete their capstone projects, synthesizing theory, research, and clinical application of knowledge.

Prereq: PSY 415 and PSY 415C

Coreq: PSY 425C

**PSY 425C  Field Placement II  CREDITS: 2**

Students continue their participation in off-campus supervised fieldwork placements involving the principles and applications of health psychology.

Coreq: PSY 425

**PSY 442  Personality Theories and Assessments  CREDITS: 3**

The student synthesizes prior learning with new learning about the concept of personality, the various components and theories of personality, and contemporary research and issues in the field of personality. Students focus on the basic theoretical and empirical approaches to understanding the concept of personality, and on contemporary research, assessments, and issues in the field of personality psychology.
PSY 444  Addiction and Recovery  CREDITS:  3
Students focus not only on the etiology of addiction, but also on the process of recovery. Students explore historical and modern concepts and interventions utilized in addiction and recovery to appreciate addiction as both a disease and a behavioral phenomenon. Employing the biopsychosocial model the student compares and contrasts the efficacy of various models of addiction, treatment, and recovery. Current developments in neuroscience and impact of technology and social media on treatment and recovery are examined.
Prereq:  PSY 240

PSY 445  Community Psychology  CREDITS:  3
The student explores and evaluates theory, research, historical foundations, and methods of community psychology. The student analyzes potential relevance of community psychology for addressing major social and health problems. The student examines existing empirical knowledge, including effective modes of community-based intervention.

PSY 447  Sensation and Perception  CREDITS:  3
Students examine how humans sense and perceive the world around them with an emphasis on the practical application of these concepts in our daily lives. The student studies the five primary senses (i.e., skin senses, chemical senses—smell and taste, audition, and vision) as well as the perception of time. Students examine changes in perception across the lifespan. The effect of life history, experience, learning, and personality factors will also be considered as they relate to the diversity of viewpoints and perspectives present in the world.
Prereq:  PSY 220

PSY 470  Neuroscience  CREDITS:  3
The student engages in advanced study of neuroscience, including consideration of topics such as sleep, pain, eating, and learning and memory. Special emphasis is placed on understanding cutting edge topics such as receptor subtypes, biological basis for learning and memory, neuronal plasticity, and psychoneuroimmunology.
Prereq:  PSY 310 or BIO 312 or NSG 410 or IDS 453

PSY 490  History & Systems of Psychology  CREDITS:  3
The student develops an appreciation and understanding of the history of psychology as both a science and a clinical application. Major theoretical approaches to understanding human and animal behavior are considered, as are developments of subspecialties within the discipline, including health psychology. The student gains experience in the seminar approach to learning as well as enhances skills with respect to critical thinking and oral and written communication through the development of a professional quality literature review.
Prereq:  PSY 310 or BIO 312 or NSG 410 or IDS 453

PSY 491  Senior Seminar in Psychology  CREDITS:  3
Students develop an appreciation and understanding of special topics in psychology as both a science and a clinical application. Students gain experience in the seminar approach to learning as well as enhance skills with respect to critical thinking and oral and written communication through the development of a professional quality literature review.

PSY 492  Group Dynamics  CREDITS:  3
Students focus on the various stages of groups, including group development, the initial
stage, the transition stage, the working stage, and the ending stage of groups. Various types of groups that may be encountered and used in a variety of health psychology fields to promote behavior change are experienced and assessed by the student. Students incorporate experiential learning as they explore the roles of the facilitator and examine ethical and multicultural issues as applied to groups.

**PSY 493  Chronic Disease Self-Management**  
CREDITS:  3  
Students explore key issues in chronic disease self-management as it pertains to asthma, diabetes, arthritis, and other chronic diseases. Students read, evaluate, and discuss self-management research articles in public health, health psychology, and clinical/counseling psychology that have been designed and implemented. Students design a program that integrates evidence-based self-management techniques.

**PSY 499  Supervised Study in Health Psychology**  
CREDITS:  3  
These supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course will involve extensive readings and/or research under the supervision of a faculty member, and will include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. Each course is a variable credit course that can be repeated once for a total of 6 credits.

**PTA 106  Basic Skills for the PTA**  
CREDITS:  3  
This course is designed to orient the student to the physical therapy profession, to begin to define the role of the physical therapist assistant, relevant information of professional history, ethics and physical therapy practice. Course content includes the organization of the medical chart, documentation, peer review, clinical roles and responsibilities of various physical therapy staff and basic patient care skills.  
Coreq:  PTA 106L and PTA 110

**PTA 106L  Basic Skills for the PTA Lab**  
CREDITS:  0  
This course is designed to orient the student to the physical therapy profession, to begin to define the role of the physical therapist assistant, relevant information of professional history, ethics and physical therapy practice. Course content includes the organization of the medical chart, documentation, peer review, Clinical roles and responsibilities of various physical therapy staff and basic patient care skills.  
Coreq:  PTA 106

**PTA 108L  Clinical Assessment Skills**  
CREDITS:  2  
Clinical Assessment Skills is a lab class designed to educate the student in basic clinical assessment skills that are routinely utilized by the Physical Therapist Assistant while delivering patient care. Areas of content include obtaining vital signs, goniometric measurement of joint range of motion, manual muscle testing, use of tilt table and appropriate documentation of assessment procedures.

**PTA 110  Integrated Sciences for the PTA**  
CREDITS:  2  
This course provides an integration of the major areas of scientific study to prepare the physical therapist assistant student for the proper use of modalities and understanding of exercise principles. The focus is on the study of math skills and physics concepts relevant to the practice of physical therapy.  
Coreq:  PTA 106

**PTA 150  Functional & Applied Anatomy**  
CREDITS:  4  
This course is designed to provide the student with an understanding of human
movement and how pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis and gait analysis.

**Prereq:** PTA 106 and BIO 211
**Coreq:** PTA 150L

**PTA 150L Functional & Applied Anatomy Lab**  
**CREDITS:** 0

This course is designed to provide the student with an understanding of human movement and how pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis and gait analysis.

**Coreq:** PTA 150

**PTA 161 Principles and Procedures of PT I**  
**CREDITS:** 6

This course is designed for the student to perform basic procedures used by the physical therapist assistant in the delivery of healthcare. The course includes the instruction of theory of the clinical use, as well as the application of therapeutic modalities. The process of performing sterile technique is also included. The course format includes lectures related to the course content and laboratory sessions for students to practice techniques in a simulated clinical setting. In addition, students participate in a clinical rotation to practice techniques learned in the laboratory on patients in an actual clinical setting. Successful completion of 120 clinical hours under the direct supervision of a Physical Therapist or Physical Therapist Assistant is required.

**Prereq:** PTA 150 and PTA 108L
**Coreq:** PTA 161C and PTA 161L

**PTA 161C Principles & Procedures of PT I Clinical**  
**CREDITS:** 0

This course is designed for the student to perform basic procedures used by the physical therapist assistant in the delivery of healthcare. The course includes the instruction of theory of the clinical use, as well as the application of therapeutic modalities. The process of performing sterile technique is also included. The course format includes lectures related to the course content and laboratory sessions for students to practice techniques in a simulated clinical setting. In addition, students participate in a clinical rotation to practice techniques learned in the laboratory on patients in an actual clinical setting. Successful completion of 120 clinical hours under the direct supervision of a Physical Therapist or Physical Therapist Assistant is required.

**Coreq:** PTA 161

**PTA 161L Principles & Procedures of PT I Lab**  
**CREDITS:** 0

This course is designed for the student to perform basic procedures used by the physical therapist assistant in the delivery of healthcare. The course includes the instruction of theory of the clinical use, as well as the application of therapeutic modalities. The process of performing sterile technique is also included. The course format includes lectures related to the course content and laboratory sessions for students to practice techniques in a simulated clinical setting. In addition, students participate in a clinical rotation to practice techniques learned in the laboratory on patients in an actual clinical setting. Successful completion of 120 clinical hours under the direct supervision of a Physical Therapist or Physical Therapist Assistant is required.

**Coreq:** PTA 161
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 201</td>
<td>Principles of Therapeutic Exercise</td>
<td>2</td>
<td>This course is designed to provide information to the student relating to normal and abnormal responses to exercise, exercise physiology and rehab exercise program design and implementation, neuromuscular facilitation techniques and balance and coordination exercises. Prereq: PTA 108L and PTA 150 and BIO 212 Coreq: PTA 201L</td>
</tr>
<tr>
<td>PTA 201L</td>
<td>Principles of Therapeutic Exercise Lab</td>
<td>0</td>
<td>This course is designed to provide information to the student relating to normal and abnormal responses to exercise, exercise physiology and rehab exercise program design and implementation, neuromuscular facilitation techniques and balance and coordination exercises. Coreq: PTA 201</td>
</tr>
<tr>
<td>PTA 203</td>
<td>Pathology for the Phys Therapist Asst</td>
<td>2</td>
<td>This course will provide the students with information about the basic pathological processes that occur in the human body. Consideration will be given to diseases commonly encountered by physical therapist assistants. Prereq: PTA 161 and PTA 201 Coreq: PTA 251C</td>
</tr>
<tr>
<td>PTA 221</td>
<td>Psychosocial Aspects of Therapy</td>
<td>2</td>
<td>This lecture course focuses on the psychological reactions and behavioral changes seen in patients and their families experiencing illness and disability. Effective interaction between patient and the allied healthcare provider is emphasized. Prereq: PSY 120 or (PSY 101 and PSY 220)</td>
</tr>
<tr>
<td>PTA 235</td>
<td>Principles &amp; Procedures of PT II</td>
<td>4</td>
<td>This course will provide the student with the information and therapeutic techniques needed to treat a wide variety of conditions associated with the medical/surgical patient, including: cardiac rehab, pulmonary rehab, wound care, burn care, amputee rehab, orthosis use, home assessment and wheelchair mobility. Basic pharmacology and its effects on physical therapy care also will be presented throughout the course. The course is designed as a lecture and laboratory format. Prereq: PTA 161 and PTA 201 Coreq: PTA 235L</td>
</tr>
<tr>
<td>PTA 235L</td>
<td>Principles &amp; Procedures of PT II Lab</td>
<td>0</td>
<td>This course will provide the student with the information and therapeutic techniques needed to treat a wide variety of conditions associated with the medical/surgical patient, including: cardiac rehab, pulmonary rehab, wound care, burn care, amputee rehab, orthosis use, home assessment and wheelchair mobility. Basic pharmacology and its affects on physical therapy care also will be presented throughout the course. The course is designed as a lecture and laboratory format. Coreq: PTA 235</td>
</tr>
<tr>
<td>PTA 236</td>
<td>Principles &amp; Procedures of PT III</td>
<td>4</td>
<td>This course provides the student with the essential information and therapeutic techniques necessary to treat the orthopedically impaired clients in the physical therapy</td>
</tr>
</tbody>
</table>
setting. This course is designed with a lecture/laboratory format.

Prereq:  PTA 161 and PTA 201
Coreq:   PTA 236L

PTA 236L  Principles & Procedures of PT III Lab  CREDITS:  0

This course provides the student with the essential information and therapeutic techniques necessary to treat the orthopedically impaired clients in the physical therapy setting. This course is designed with a lecture/laboratory format.

Coreq:  PTA 236

PTA 241  Pediatric Physical Therapy  CREDITS:  2

Pediatric conditions of infants through adolescents with emphasis on developmental disabilities and providing Pediatric physical therapy in a variety of settings including outpatient clinic, school and early intervention, normal motor development, treatment theories and interventions, including handling techniques and use of pediatric equipment.

Prereq:  PTA 203 and PTA 221 and PTA 236
Coreq:  PTA 241L and PTA 252C

PTA 241L  Pediatric Physical Therapy Laboratory  CREDITS:  0

Pediatric conditions of infants through adolescents with emphasis on developmental disabilities and providing Pediatric physical therapy in a variety of settings including outpatient clinic, school and early intervention, normal motor development, treatment theories and interventions, including handling techniques and use of pediatric equipment.

Coreq:  PTA 241

PTA 242  Adult Neurological Rehabilitation  CREDITS:  3

This course explores the pathophysiology of and rehabilitation for a variety of neurological disorders. It is designed to inform the Physical Therapist Assistant student of common neurological pathology and appropriate physical therapy interventions for the adult patient population.

Prereq:  PTA 203 and PTA 235
Coreq:  PTA 242L

PTA 242L  Adult Neurological Rehabilitation Lab  CREDITS:  0

This course explores the pathophysiology and rehabilitation for a variety of neurological disorders including: cerebral vascular accident, spinal cord injuries, closed head injuries, commonly seen upper and lower motor neuron pathologies, and vestibular pathologies. This course is designed to inform the student of common neurological pathology and appropriate physical therapy intervention for this patient population.

Coreq:  PTA 242

PTA 251C  Clinical Practicum I  CREDITS:  3

This full-time practicum is designed to provide the student the opportunity to apply previously learned and practiced skills in an actual clinical setting. The experience is four weeks in length with an emphasis on acute care and/or orthopedics. Supervision during the affiliation will be provided by clinical instructors in the health care facility to which the student is assigned. It is planned for clinical instructors to provide supervision, direction and guidance, but formal instruction will not be a planned part of these clinical experiences. Pass/Fail.

Coreq:  PTA 203
PTA 252C  Clinical Practicum II  CREDITS:  7
This full-time clinical experience is designed to provide the student the opportunity to apply previously learned and practiced skills in an actual clinical setting. The experience is eight weeks in length at selected clinical facilities with emphasis on long-term rehab. Supervision during the clinical will be provided by clinical instructors in the health care facility to which the student is assigned. It is planned for clinical instructors to provide supervision, direction and guidance, but formal instruction will not be a planned part of these clinical experiences. Pass/Fail.
Coreq:  PTA 241

PTA 285  Professional Seminar  CREDITS:  2
This course is discussion/lecture designed to provide the student with current information concerning issues in the field of rehabilitation and to provide preparation for the licensing procedure. The student also will prepare for job seeking by writing cover letters, resumes and undergoing a mock job interview. This course will also prepare the student in group presentation using multimedia equipment and the internet for research.

RTH 301  Patient Assessment  CREDITS:  2
This course provides essential components of patient assessment including patient interview, physical assessment, physiological monitoring, and basic diagnostic testing.
Prereq:  BIO 212 or BIO 240

RTH 302  Respiratory Therapy Procedures I  CREDITS:  4
This course delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing entry-level therapies. The laboratory component ensures integration of psychomotor competency with the equipment and procedures introduced in the classroom.
Prereq:  BIO 212
Coreq:  RTH 302L

RTH 302L  Respiratory Therapy Procedures I Lab  CREDITS:  0
This course delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing entry-level therapies. The laboratory component ensures integration of psychomotor competency with the equipment and procedures introduced in the classroom.
Coreq:  RTH 302

RTH 304  Cardiopulmonary Anatomy & Physiology  CREDITS:  3
This course is a concentrated study of the anatomy and physiology of the renal, cardiac, and pulmonary systems. Emphasis is placed on the functional integration of these systems.
Prereq:  BIO 212

RTH 305  Integrated Science for Resp Therapy  CREDITS:  3
This course is an integration of the major areas of scientific study with application to the theory and procedures in the field of Respiratory Therapy. The course focuses on applied mathematics, organic, inorganic, and physiologic chemistry, and medical physics with emphasis on physical principles of gases.
Prereq:  BIO 212
RTH 308C  Clinical Practice I  CREDITS: 1
This course is an introduction to Respiratory Therapy and patient care in the clinical setting. Initially, the students will observe patient care. The level of clinical participation will increase after demonstration of laboratory procedure competency. (Pass/Fail)
Prereq: BIO 212

RTH 309  Patient Assessment  CREDITS: 3
This course provides essential components of patient assessment including patient interview, physical assessment, physiological monitoring, and basic diagnostic testing.
Prereq: BIO 212

RTH 310  Cardiopulmonary Pharmacology  CREDITS: 3
This course focuses on a comprehensive review of all drugs that are either administered by respiratory therapists or play an integral part in the management of patients. Emphasis is placed on the clinical application of pharmacological agents, mechanism of action, and their therapeutic and adverse effects.
Prereq: RTH 304

RTH 311  Respiratory Therapy Procedures II  CREDITS: 4
This course is a continuation of the practices in Respiratory Therapy. It delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing intermediate-level therapies. The laboratory component ensures integration of psychomotor competency with equipment and procedures introduced in the classroom.
Coreq: RTH 311L

RTH 311L  Respiratory Therapy Procedures II Lab  CREDITS: 0
This course is a continuation of the practices in Respiratory Therapy. It delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing intermediate-level therapies. The laboratory component ensures integration of psychomotor competency with equipment and procedures introduced in the classroom.
Coreq: RTH 311

RTH 318C  Clinical Practice II  CREDITS: 3
This course provides the student with continuing experiences needed for integration of classroom and laboratory knowledge within the clinical arena. Demonstrated proficiency in the laboratory must be completed prior to performing any task in patient-care settings. This clinical experience provides opportunities for observation and participation within acute care settings predominantly outside of the Intensive Care Units. (Pass/Fail)
Prereq: RTH 302 and RTH 308C

RTH 320  Mechanical Ventilation  CREDITS: 4
This course provides an introduction to mechanical ventilation. Underlying concepts, historical development, classification, and modes specifically related to non-invasive and invasive mechanical ventilation are examined.
Prereq: RTH 311
Coreq: RTH 320L

RTH 320L  Mechanical Ventilation Laboratory  CREDITS: 0
This course provides an introduction to mechanical ventilation. Underlying concepts,
historical development, classification, and modes specifically related to non-invasive and invasive mechanical ventilation are examined.

Coreq: RTH 320

**RTH 330  Cardiopulmonary Physiology  CREDITS: 3**

This course focuses on the etiology and pathogenesis of cardiopulmonary diseases. Additional emphasis is placed on the clinical manifestations, diagnosis, complications, and general therapeutic intervention of reviewed diseases.

Prereq: RTH 320

**RTH 332  Pulmonary Function Studies  CREDITS: 2**

This course reviews bedside spirometry and progresses to advanced pulmonary function testing (PFT) procedures. Quality assurance requirements are introduced. Interpretation of data related to diagnosis of pulmonary disorders is integrated within the course.

Prereq: RTH 301

**RTH 411  Patient Education and Rehabilitation  CREDITS: 2**

This course focuses on a comprehensive review of all drugs that are either administered by respiratory therapists or play an integral part in the management of patients. Emphasis is placed on the clinical application of pharmacological agents, mechanism of action, and their therapeutic and adverse effects.

Prereq: RTH 330

**RTH 420  Neonatal/Pediatric Respiratory Therapy  CREDITS: 3**

This course focuses on the etiology, pathophysiology, diagnoses, and treatment of cardiopulmonary conditions encountered in the newborn and pediatric patient. It provides information on the developmental stages and assessment of the fetus, newborn, and child, and the implications for respiratory therapy for these age groups. Neonatal and pediatric resuscitation are introduced.

Prereq: RTH 311

**RTH 430  Patient Case Management I  CREDITS: 3**

This course is a continuation of RTH 320. The student is provided with an in-depth discussion of the initiation, management, and discontinuation of mechanical ventilation within traditional and nontraditional settings.

Prereq: RTH 320 and RTH 318C

**RTH 448C  Clinical Practice III  CREDITS: 3**

This course provides the student with continuing experiences needed for integration of classroom and laboratory knowledge within the clinical arena. Demonstrated proficiency in the laboratory must be completed prior to performing any task in patient care settings. This clinical experience also provides opportunities for observation and participation in specialty rotations including: (1) Pediatric and Neonatal Intensive Care, (2) Operating Room for airway management, (3) Polysomnography, (4) Cardiopulmonary Rehabilitation and Homecare, and (5) Pulmonary Function Testing. All previous competencies will be maintained. (Pass/Fail)

Prereq: RTH 318C

**RTH 450  Case Management II  CREDITS: 3**

This course provides strategies for the management of the critically ill patient. Emphasis is placed on the gathering of pertinent information and management of patients with
specific disease states
Prereq: RTH 448C

**RTH 478C Clinical Practice IV**
**CREDITS: 3**
This course provides the student with continuing experiences needed for integration of classroom and laboratory knowledge within the clinical arena. This clinical experience also provides opportunities for observation and participation in specialty rotations including: (1) Pediatric and Neonatal Intensive Care, (2) Operating Room for airway management, (3) Polysomnography, (4) Cardiopulmonary Rehabilitation and Homecare, and (5) Pulmonary Function Testing (if not completed in RTH 448). All previous competencies will be maintained. (Pass/Fail)
Prereq: RTH 430 and RTH 448C

**RTH 488C Clinical Specialty Rotation**
**CREDITS: 1**
This course provides the student with a focused clinical experience. It allows for individualized exploration of a variety of settings and geographical locations not previously addressed in prior rotations.
Prereq: RTH 430 and RTH 448C

**RTH 490 Professional Seminar**
**CREDITS: 3**
This capstone course prepares students for entry into the profession of Respiratory Therapy. This course also addresses current socioeconomic and political issues, healthcare trends, professionalism, and life-long learning.
Prereq: RTH 430

**SCI 101 Introduction to the Natural Sciences**
**CREDITS: 3**
This course provides an overview of the content within different disciplines in the natural sciences. Through consideration of the scientific method, students develop a fundamental understanding of all sciences. Students also develop scientific literacy, understanding science and its impact upon everyday life as well as professional and clinical practice.

**SOC 101 Introduction to Sociology**
**CREDITS: 3**
This course introduces students to the scientific study of human society and social behavior. The course focuses on the influence of culture, socialization, social structure, stratification, and social institutions. It identifies differentiations by race, ethnicity, gender, age, class and socio/cultural change and their effects on attitudes and behavior. Students engage in the process of thinking critically and logically about social issues from the sociological perspective.

**SOC 210 Medical Sociology**
**CREDITS: 3**
This course is a survey of the social, economic and cultural factors in health and illness. The focus will be the sociology of health and medical care organizations and settings. The sociology of health occupations and selected contemporary issues and healthcare trends will be discussed.

**SOC 213 Social Issues in Health Care Delivery**
**CREDITS: 3**
This course will introduce students to vital social issues affecting healthcare delivery in the United States. Course content will include health related demographics, ethnic and cultural diversity, applied communication methods and skills and an orientation to community healthcare. An experiential learning module will place students in a volunteer role working 20 hours with a community agency serving healthcare needs. Agencies serving geriatric clients or underserved populations will take priority.
SOC 225  Family Dynamics  CREDITS:  3
This course is designed to provide the student and overview of the diversity of the family unit. Information presented will assist in the comparison of similarities, differences and concerns of various families and individuals. Family structure, ethnic diversity and lifestyle variations also will be addressed.
Prereq:  SOC 213

SOC 301  Race & Ethnicity in Healthcare  CREDITS:  3
This course will provide students with a fundamental understanding of the dynamics of racial and ethnic relations in American daily life. The course will present an in-depth look at the history, theory, and methods that inform social science research on pressing social issues, such as diversity and inequality, and their impact on healthcare locally, regionally, and nationally.
Prereq:  SOC 213

SOC 320  Deviance and Medicalization  CREDITS:  3
The course is a study of the nonconformity to social norms as defined from the point of view of a particular normative structure. The course addresses the development of these standards, or norms, and the consequences of violating norms, socially and legally, and the development of deviant identity and subgroups. In addition, the concept of social control, both positive and negative, which motivates people to adhere to traditions and rules and laws, is examined. The course will be informed, where applicable, by health and medicine.
Prereq:  SOC 213

SOC 340  Appalachian Health Culture  CREDITS:  3
In this course students are introduced to the history of health and healthcare in the mountains of Appalachia and the engaging interface between Appalachian culture and health. The region’s current health status is discussed with regard to problematic health conditions, leading causes of morbidity and mortality, and access to comprehensive healthcare.
Prereq:  SOC 213

SPA 111  Spanish I  CREDITS:  4
An introductory course that delivers oral and written communication in Spanish with emphasis in the present tense. Tutorial labs are included.

SPA 112  Spanish II  CREDITS:  4
A continuation of Spanish I with emphasis upon communication in the present and past tense. Tutorial labs are included.
Prereq:  SPA 111

SUR 100  Introduction to Surgical Technology  CREDITS:  2
Students are introduced to the hospital, healthcare organization, and operating room environment. The curriculum framework and foundational concepts for practice as a certified surgical technologist are presented.
Prereq:  BIO 211 and HLT 215
Coreq:  SUR 103 and SUR 108

SUR 103  Principles of Surgical Technology  CREDITS:  7
The student is introduced to the principles of surgical technology and examines the
perioperative roles of the surgical technologist. The creation and maintenance of the sterile field and identification of surgical instrumentation are presented. Concepts taught didactically are reinforced via laboratory practice and demonstrations. (3 credits class, 4 credits lab)

Prereq: BIO 211 and HLT 215
Coreq: SUR 100 and SUR 103L and SUR 108

**SUR 103L  Princ Surgical Technology Laboratory**  CREDITS: 0

The student is introduced to the principles of surgical technology and examines the perioperative roles of the surgical technologist. The creation and maintenance of the sterile field and identification of surgical instrumentation are presented. Concepts taught didactically are reinforced via laboratory practice and demonstrations. (3 credits class, 4 credits lab)

Coreq: SUR 103

**SUR 108  Principles of Asepsis**  CREDITS: 2

The focus of this course is microorganisms and how they relate to infection. The student is introduced to the principles of asepsis and surgical conscience, sterilization and disinfection, environmental disinfection, sterile storage and distribution, and wound healing.

Prereq: BIO 211 and HLT 215
Coreq: SUR 100 and SUR 103

**SUR 111C  Surgical Practicum I**  CREDITS: 3

This course is the first of three clinical practicums. Students participate in supervised clinical experiences and selected observational experiences that complement the surgical procedures taught in didactic coursework. Students will apply theoretical knowledge while gaining aptitude, skills and proficiency.

Prereq: SUR 100 and SUR 103 and SUR 108
Coreq: SUR 201

**SUR 113  Surgical Pharmacology**  CREDITS: 2

The student is introduced to drug classifications and appropriate uses related to surgical procedures. Dosage calculation, conversions, abbreviations, and techniques for use during surgery are discussed and practiced. The role of the surgical technologist in handling intraoperative medications/solutions and in assisting with the administration of surgical anesthesia during various surgical procedures is addressed.

Prereq: SUR 201 and SUR 111C
Coreq: SUR 210 and SUR 214C

**SUR 201  Surgical Procedures I**  CREDITS: 3

This course is the first in a series of three that introduces the student to surgical procedures. Pathophysiology, surgical anatomy, instrumentation, and procedural steps are discussed and combined with a consistent method of reinforcement at the clinical site.

Prereq: SUR 108
Coreq: SUR 111C

**SUR 210  Surgical Procedures II**  CREDITS: 3

This course is the second in a series of three that introduces the student to surgical
procedures. Pathophysiology, surgical anatomy, instrumentation, and procedural steps are discussed and combined with a consistent method of reinforcement at the clinical site.

Prereq:  SUR 201 and SUR 111C  
Coreq:  SUR 113 and SUR 214C

**SUR 212C  Surgical Practicum Elective  **  
CREDITS:  3

The student participates in selected supervised surgical technologist clinical and observational experiences during this clinical practicum elective. (Pass/Fail)

Prereq:  SUR 111C

**SUR 214C  Surgical Practicum II  **  
CREDITS:  6

This course is the second of three clinical practicum. The student participates in supervised clinical experiences and selected observational experiences that complement the surgical procedures taught in didactic coursework. The student applies theoretical knowledge while gaining aptitude, skills, and proficiency.

Prereq:  SUR 201 and SUR 111C  
Coreq:  SUR 113 and SUR 210

**SUR 215C  Surgical Practicum III  **  
CREDITS:  6

This course is the third of three clinical practicum. The student participates in supervised clinical experiences and selected observational experiences that complement the surgical procedures taught in didactic coursework. The student applies theoretical knowledge while gaining aptitude, skills, and proficiency.

Prereq:  SUR 210 and SUR 214C  
Coreq:  SUR 221 and SUR 228

**SUR 221  Surgical Procedures III  **  
CREDITS:  3

This course is the third in a series of three that introduces the student to surgical procedures. Pathophysiology, surgical anatomy, instrumentation, and procedural steps are discussed and combined with a consistent method of reinforcement at the clinical site.

Prereq:  SUR 210 and SUR 214C  
Coreq:  SUR 215C and SUR 228

**SUR 228  Surgical Technology Seminar  **  
CREDITS:  2

In this capstone course, the student demonstrates achievement of program outcomes and readiness for entry-level practice as a surgical technologist. The student demonstrates knowledge for entry-level practice via standardized testing and preparation for the NBSTSA Certified Surgical Technologist (CST) Exam.

Prereq:  SUR 210 and SUR 214C  
Coreq:  SUR 215C and SUR 221

**ZES 0001  Intermediate to Paramedic  **  
CREDITS:  0

The EMT- Intermediate to Paramedic Program is designed to certify the technician to the highest level of pre-hospital advanced life support care available in Virginia. This program fulfills all the requirements of the 2010 National EMS Education Standards for Paramedic (www.ems.gov/educationstandards.htm).
ZES 0010  EMT Initial Training  CREDITS:  0
The Emergency Medical Technician – Basic course is designed to provide training to prepare an individual to function independently in a medical emergency. This course provides the basic knowledge and skills needed to provide basic life support (BLS) care and is required to progress to more advanced levels of pre-hospital patient care.
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<th>Institution(s)</th>
<th>Contact Information</th>
</tr>
</thead>
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</thead>
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<thead>
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<th>Phone</th>
<th>Email</th>
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</tbody>
</table>

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<thead>
<tr>
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<th>Phone</th>
<th>Email</th>
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<table>
<thead>
<tr>
<th><strong>Semester</strong></th>
<th><strong>Fall 2015</strong></th>
<th><strong>Spring 2016</strong></th>
<th><strong>Summer 2016</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuition Fees Due</strong></td>
<td>Jul. 20</td>
<td>Dec. 14</td>
<td>Apr. 25</td>
</tr>
<tr>
<td><strong>Faculty Semester Begins</strong></td>
<td>Aug. 10</td>
<td>Jan. 4</td>
<td></td>
</tr>
<tr>
<td><strong>College Meeting for Faculty &amp; Staff</strong></td>
<td>Aug. 10</td>
<td>Jan. 6</td>
<td></td>
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<tr>
<td><strong>BLUE Week</strong></td>
<td>Aug. 11-14</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Orientation for Students</strong></td>
<td>Aug. 17</td>
<td>Jan. 11</td>
<td></td>
</tr>
<tr>
<td><strong>Convocation &amp; Programmatic Orientation</strong></td>
<td>Aug. 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classes Begin: General, 1st Half, &amp; 10 Wk. Sessions</strong></td>
<td>Aug. 19</td>
<td>Jan. 13</td>
<td>May 16</td>
</tr>
<tr>
<td><strong>Graduate Students: Last Day to Add/Drop w/full refund</strong></td>
<td>Aug. 26</td>
<td>Jan. 20</td>
<td>May 23</td>
</tr>
<tr>
<td><strong>Undergraduates: Last Day to Add/Drop w/full refund</strong></td>
<td>Sept. 2</td>
<td>Jan. 27</td>
<td>May 23</td>
</tr>
<tr>
<td><strong>College Closed (Memorial/Labor Day)</strong></td>
<td>Sept. 7</td>
<td></td>
<td>May 30</td>
</tr>
<tr>
<td><strong>Spring Break (No classes, Offices open)</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: 1st Half Session</strong></td>
<td>Sept. 15</td>
<td>Feb. 5</td>
<td>May 31</td>
</tr>
<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: Ten Week Session</strong></td>
<td>Sept. 23</td>
<td>Feb. 19</td>
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<tr>
<td><strong>Midterm Grades Due</strong></td>
<td>Oct. 9</td>
<td>Mar. 4</td>
<td></td>
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<tr>
<td><strong>Classes End: 1st Half Session</strong></td>
<td>Oct. 12</td>
<td>Mar. 15</td>
<td>Jun. 20</td>
</tr>
<tr>
<td><strong>Summer Exams 1st Half Session</strong></td>
<td></td>
<td></td>
<td>Jun. 21</td>
</tr>
<tr>
<td><strong>Last day to Remove an &quot;I&quot;</strong></td>
<td>Oct. 12</td>
<td>Mar. 18</td>
<td></td>
</tr>
<tr>
<td><strong>Reading Day/Faculty Ed Day (No classes, Offices open)</strong></td>
<td>Oct. 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classes Begin: 2nd Half Session</strong></td>
<td>Oct. 14</td>
<td>Mar. 14</td>
<td>Jun. 22</td>
</tr>
<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: General Session</strong></td>
<td>Oct. 16</td>
<td>Mar. 18</td>
<td>Jun. 9</td>
</tr>
<tr>
<td><strong>Classes End: Ten Week Session</strong></td>
<td>Oct. 27</td>
<td>Mar. 29</td>
<td></td>
</tr>
<tr>
<td><strong>College Closed (Independence Day)</strong></td>
<td></td>
<td></td>
<td>Jul. 4</td>
</tr>
<tr>
<td><strong>Returning Students Registration Begins</strong></td>
<td>Nov. 5</td>
<td>Mar. 24 (SU), Apr. 7 (FA)</td>
<td></td>
</tr>
<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: 2nd Half Session</strong></td>
<td>Nov. 6</td>
<td>Apr. 6</td>
<td>Jul. 8</td>
</tr>
<tr>
<td><strong>New Student Registration Begins</strong></td>
<td>Nov. 12</td>
<td>Mar. 31 (SU), Apr. 14 (FA)</td>
<td></td>
</tr>
<tr>
<td><strong>No Classes, Offices Open</strong></td>
<td>Nov. 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>College Closed (Thanksgiving)</strong></td>
<td>Nov. 26-27</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classes End: General Session &amp; 2nd Half Session</strong></td>
<td>Dec. 1</td>
<td>Apr. 26</td>
<td>Jul. 25</td>
</tr>
<tr>
<td><strong>Exams</strong></td>
<td>Dec. 2 – 4, 7 - 8</td>
<td>Apr. 27 – 29, May 2 - 3</td>
<td>Jul. 26 - 29</td>
</tr>
<tr>
<td><strong>Final Grades Due (noon)</strong></td>
<td>Dec. 9</td>
<td>May 4</td>
<td>Aug. 2</td>
</tr>
<tr>
<td><strong>Graduation</strong></td>
<td>Dec. 11</td>
<td>May 6</td>
<td></td>
</tr>
<tr>
<td><strong>Residence Hall Move-out (noon; non-returning students)</strong></td>
<td>Dec. 12</td>
<td>May 7</td>
<td>Jul. 30</td>
</tr>
<tr>
<td><strong>College Closed</strong></td>
<td>Dec. 21 – Jan. 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**College Closed**: No classes held and offices are not expected to be open. PTO accruing employees should refer to the Compensation for Time-off and College Closings policy for expectations.

**Faculty Semester Begins**: Full and part-time faculty should be present to prepare for the upcoming semester.
# 2016 – 2017 Academic Calendar

<table>
<thead>
<tr>
<th>Event</th>
<th>Fall 2016</th>
<th>Spring 2017</th>
<th>Summer 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition Fees Due</td>
<td>Jul. 21</td>
<td>Dec. 15</td>
<td>Apr. 20</td>
</tr>
<tr>
<td>Faculty Semester Begins</td>
<td>Aug. 8</td>
<td>Jan. 2</td>
<td></td>
</tr>
<tr>
<td>College Meeting for Faculty &amp; Staff</td>
<td>Aug. 8</td>
<td>Jan. 4</td>
<td></td>
</tr>
<tr>
<td>BLUE Week</td>
<td>Aug. 9 – 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence Hall Move-in</td>
<td>Aug. 12</td>
<td>Jan. 6</td>
<td>May 12</td>
</tr>
<tr>
<td>Orientation for Students</td>
<td>Aug. 15</td>
<td>Jan. 9</td>
<td></td>
</tr>
<tr>
<td>Convocation &amp; Programmatic Orientation</td>
<td>Aug. 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classes Begin: General, 1st Half, &amp; 10 Wk. Sessions</strong></td>
<td>Aug. 17</td>
<td>Jan. 11</td>
<td>May 15</td>
</tr>
<tr>
<td>Graduate Students: Last Day to Add/Drop w/full refund</td>
<td>Aug. 24</td>
<td>Jan. 18</td>
<td>May 22</td>
</tr>
<tr>
<td>Undergraduates: Last Day to Add/Drop w/full refund</td>
<td>Aug. 31</td>
<td>Jan. 25</td>
<td>May 22</td>
</tr>
<tr>
<td>College Closed (Memorial/Labor Day)</td>
<td>Sept. 5</td>
<td></td>
<td>May 29</td>
</tr>
<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: 1st Half Session</strong></td>
<td>Sep. 13</td>
<td>Feb. 3</td>
<td>May 30</td>
</tr>
<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: Ten Week Session</strong></td>
<td>Sep. 21</td>
<td>Feb. 17</td>
<td></td>
</tr>
<tr>
<td>Reading Day/Faculty Ed Day (No classes, Offices open)</td>
<td>Oct. 4</td>
<td></td>
<td></td>
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<tr>
<td>Midterm Grades Due</td>
<td>Oct. 7</td>
<td>Mar. 3</td>
<td></td>
</tr>
<tr>
<td>Spring Break (No classes, Offices open)</td>
<td></td>
<td>Mar. 6 – 12</td>
<td>Jun. 19</td>
</tr>
<tr>
<td><strong>Classes End: 1st Half Session</strong></td>
<td>Oct. 10</td>
<td>Mar. 15</td>
<td>Jun. 20</td>
</tr>
<tr>
<td>Summer Exams 1st Half Session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classes Begin: 2nd half Session</strong></td>
<td>Oct. 11</td>
<td>Mar. 16</td>
<td>Jun. 22</td>
</tr>
<tr>
<td>Last day to Remove an &quot;I&quot;</td>
<td>Oct. 17</td>
<td>Mar. 17</td>
<td></td>
</tr>
<tr>
<td><strong>Last day to Withdraw &quot;W&quot;: General Session</strong></td>
<td>Oct. 17</td>
<td>Mar. 17</td>
<td>Jun. 8</td>
</tr>
<tr>
<td><strong>Classes End: Ten Week Session</strong></td>
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<td>Mar. 28</td>
<td></td>
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<td>Jul. 7</td>
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<tr>
<td>New Student Registration Begins</td>
<td>Nov. 10</td>
<td>Mar. 30 (SU), Apr. (13 FA)</td>
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<td>No Classes, Offices Open</td>
<td>Nov. 23</td>
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<td></td>
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<td>May 6</td>
<td>Jul. 29</td>
</tr>
<tr>
<td>College Closed (Winter Break)</td>
<td>Dec. 19 – Jan. 1</td>
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Jefferson College of Health Sciences

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