

GATTON COLLEGE OF PHARMACY
CATALOG
2015 - 2016



EAST TENNESSEE STATE UNIVERSITY

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ACADEMIC CALENDAR
Fall 2015 through Spring 2016
(Subject to Change)

Fall Semester

APPE Session 3 (P4)	July 1 – 31, 2015
APPE Session 4 (P4)	August 3 – 31, 2015
Orientation – Class of 2018	August 10 - 14, 2015
White Coat Ceremony – Class of 2018	August 14, 2015
Classes begin (P1, P2, P3)	August 17, 2015
APPE Session 5	September 1 – 30, 2015
Labor Day Holiday (P1, P2, P3)	September 7, 2015
APPE Session 6	October 1 – 30, 2015
Career Fair	TBD
Fall Break (P1, P2, P3)	October 12 - 13, 2015
APPE Session 7	November 2 – 30, 2015
Thanksgiving Holiday (P1, P2, P3)	November 25 – 27, 2015
Last Day of Classes (P1, P2, P3)	December 3, 2015
Reading Day/Alternate Final Exam Day (P1, P2, P3)	December 4, 2015
Final Exams (P1, P2, P3)	December 7 - 11, 2015

Spring Semester

APPE Session 8 (P4)	January 4 - 29, 2016
Classes begin (P1, P2, P3)	January 6, 2016
Martin Luther King Day Holiday	January 18, 2016
APPE Session 9 (P4)	February 1 – 29, 2016
APPE Session 10	March 1 – 31, 2016
Spring Break (P1, P2, P3)	March 7 - 11, 2016
APPE Session 11	April 1– 29, 2016
Last Day of Classes (P1, P2, P3)	April 27, 2016
Final Exam (P3)	April 28 – 29, 2016
Reading Days/Alternate Final Exam Day (P1, P2)	April 29, 2016
Final Exams (P1, P2)	May 2 – 5, 2016
APPE Session 1 (Class of 2017)	May 2 – 31, 2016
Hooding and Commencement (P4)	May 6, 2016
APPE Session 2 (Class of 2017)	June 1 – 30, 2016
IPPE Community – P2 (two consecutive weeks during summer)	As Scheduled
IPPE Institutional – P2 (two consecutive weeks during summer)	As Scheduled

GENERAL INFORMATION

East Tennessee State University is a Tennessee Board of Regents institution. The Tennessee Board of Regents is the nation's sixth largest higher education system, governing 45 post-secondary educational institutions. The TBR system includes six universities, 13 two-year colleges, and 26 technology centers. Public higher education in Tennessee is coordinated by the Tennessee Higher Education Commission and consists of two systems – the University of Tennessee campuses, governed by the University Of Tennessee Board Of Trustees, and the state universities, community colleges, and technology centers governed by the Tennessee Board of Regents. The General Assembly created the Commission in 1967 to achieve coordination and unity among the programs of Tennessee's public post-secondary institutions and to serve as a primary source of information concerning higher education in Tennessee.

Degree requirements for the programs of study initiated under provisions of this bulletin shall remain in effect for six years. Students not completing requirements within the six-year period are subject to dismissal. The time limitation may be extended for interruption by military service where enrollment is resumed immediately upon release from service.

The course offerings and requirements of ETSU are continually under examination and revision. This bulletin presents the offerings and requirements in effect at the time of publication, but is no guarantee that they will not be changed or revoked. However, adequate and reasonable notice will be given to students affected by any changes. This bulletin is not intended to state contractual terms and does not constitute a contract between the student and ETSU.

East Tennessee State University reserves the right to make changes as required in course offerings, curricula, academic policies, and other rules and regulations affecting students to be effective whenever determined by the institution. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions.

East Tennessee State University complies fully with the Family Educational Rights and Privacy Act of 1974, as amended. East Tennessee State University is fully in accord with the belief that educational and employment opportunities should be available to all eligible persons without regard to age, gender, color, race, religion, national origin, disability, veteran status, or sexual orientation.

East Tennessee State University provides the opportunity for students to increase their knowledge by offering programs of instruction in the various disciplines and programs through faculty who, in the opinion of ETSU, are qualified for teaching at the college level. The acquisition and retention of knowledge by any student are, however, contingent upon the student's desire and ability to learn while applying appropriate study techniques to any course or program. Thus, ETSU must necessarily limit representation of student preparedness in any field of study to that competency demonstrated at that specific point in time at which appropriate academic measurements were taken to certify course or program completion.

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

The right to inspect and review the student's education records within 45 days of the day the university receives a request for access.

Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the university official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed.

The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the university to amend a record that they believe is inaccurate or misleading. They should write the university 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 university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or 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.

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); 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 task. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the university discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by East Tennessee State University to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:

Family Policy Compliance Office

U.S. Department of Education

400 Maryland Avenue, SW

Washington, DC 20202-4605

Directory Information

East Tennessee State University contracts the publication of a directory, which shows student names, addresses (e-mail, mailing, and campus box), major, and phone number. In addition, ETSU may release other directory information. Other directory information is defined as: enrollment status, dates of attendance, classification, previous institution(s) attended, awards, honors, photographs, degrees conferred (including dates), hometown and residency placement information, and sports participation information.

If students prefer not to have these items released, they must submit a written request to prevent disclosure of this data. A non-disclosure form is provided during orientation and is available through the College of Pharmacy Office of Student Affairs. The form must be submitted prior to the start of classes for the term in which the student desires the restriction to go into effect. A form submitted the last term of enrollment will remain in effect until the student re-enrolls.

Student Photos (Permission for Photos of Students)

The College and University provides information to various organizations about pharmacy students' accomplishments and activities during their enrollment and at the time of graduation, which may include the provision of photographs and other visual images of students. As a regular practice, photographs of students, faculty, staff, and visitors to campus are used in publications produced by the College and University for recruitment and general information. Any student who does not wish to appear in any photos used for these purposes must notify the College of Pharmacy Office of Student Affairs prior to the start of classes for the term in which the student desires the restriction to go into effect. Please note that the restriction does not apply to the use of photographs taken of general scenes, events, or classes in session where groups of students may appear.

Campus Security Report

East Tennessee State University makes available to prospective students and employees the ETSU Security Information Report. This annual report includes campus crime statistics for the three most recent calendar years and various campus policies concerning law enforcement, the reporting of criminal activity, and crime prevention programs. The ETSU Security Information Report is available upon request from East Tennessee State University, Department of Public Safety, Box 70646, Johnson City, TN 37614-1702. The report can be accessed on the Internet at: <http://www.etsu.edu/humanres/relations/campussecurity.aspx>.

Falsification of Credentials

According to T.C.A. Sec. 49-7-133, it is a Class A misdemeanor to misrepresent academic credentials. A person commits the offense of misrepresentation of academic credentials who, knowing that the statement is false and with the intent to secure employment at or admission to an institution of higher education in Tennessee, represents, orally or in writing that such person:

- (1) Has successfully completed the required coursework for and has been awarded one (1) or more degrees or diplomas from an accredited institution of higher education;
- (2) Has successfully completed the required coursework for and has been awarded one (1) or more degrees for diplomas from a particular institution of higher education; or
- (3) Has successfully completed the required coursework for and has been awarded one (1) or more degrees or diplomas in a particular field or specialty from an accredited institution of higher education.

Eligibility for admission shall be determined without regard to age, sex, color, race, religion, national origin, disability, or sexual orientation.

Student Conduct, Rights, and Responsibilities

University students are citizens of the state, local, and national governments and of the academic community, and are, therefore, expected to conduct themselves as law-abiding members of each community at all times. Admission to an institution of higher education carries with it special privileges and imposes special responsibilities apart from those rights and duties enjoyed by non-students. In recognition of the special relationship that exists between the institution and the academic community which it seeks to serve, the Tennessee Board of Regents has authorized the president of the university to take such action as may be necessary to maintain campus conditions and preserve the integrity of the institution and its educational environment.

Pursuant to this authorization, the Tennessee Board of Regents has developed regulations that are intended to govern student conduct on the campus. In addition, students are subject to all national, state, and local laws and ordinances. If a student's violation of such laws or ordinances also adversely affects the institution's pursuit of its educational objectives, the institution may enforce its own regulations regardless of any proceedings instituted by other authorities. Conversely, violation of any section of the Tennessee Board of Regents regulations or university rules may subject a student to disciplinary measures by the institution whether or not such conduct is simultaneously in violation of state, local, or national laws.

A complete statement on institutional student disciplinary rules and procedures can be found in the university student handbook that is published annually and distributed to students as part of the campus telephone directory.

Students' Bill of Rights

Students, along with faculty, staff, and administrators, are all members of the East Tennessee State University community. Inherent with such membership is the responsibility to conduct oneself reasonably to maintain a civil community that respects the rights of all individuals.

The student has certain rights guaranteed by the Federal and State Constitutions or statutorily created legislation including:

- Freedom of inquiry, freedom of speech, and freedom of expression that is respectful or sensitive to the rights of individuals.
- The right to peaceably assemble, in accordance with federal, state, local, and ETSU regulations.
- Religious freedom and a clear division of church and state.
- Freedom from unreasonable search and/or seizure of person, or personal property.
- Freedom from discrimination or harassment on the basis of gender, age, race, color, religion, national origin, or other protected status.
- The right to privacy, including the maintenance of confidential records in accordance with provisions of the Family Educational Rights and Privacy Act of 1974 and 1975, qualified by the Tennessee Open Records Law.
- The right to due process.

The Tennessee Board of Regents grants additional rights including:

- The right to due process in disciplinary procedures of the university, including written notification of charges, an explanation of procedures, and a hearing before an appropriate administrator or committee.
- The right to expeditious review of disciplinary sanctions upon appeal.
- The right to participate in the decision-making process of the university through the Student Government Association, other student governance organizations, and membership on university standing and advisory committees.
- The right to affiliate with officially registered student organizations if the membership requirements of those organizations have been met, and the right to seek to establish, through official procedures, additional student organizations of one's choosing.

East Tennessee State University acknowledges that students have a legitimate expectation that:

- Classes meet as scheduled, and begin and adjourn on time.
- Course requirements are clearly specified.
- The instructor is prepared for class and possesses both oral and written communications skills.
- Paper project grades and test results are received in a timely manner.
- Information about progress in coursework is provided.
- The instructor is qualified to teach the subject matter.

Additionally, students have the right to expect:

- Accurate information concerning institutional services, regulations, policies, and procedures, in published form.
- Representation in the university governance system.
- Sound and accurate academic advice, information regarding courses required for graduation, and their schedule sequence.
- Reasonable notice of any changes in academic requirements or programs and

assurance that such changes will not be made in a way that unduly impedes the academic progress of the student already enrolled.

- Flexibility in course scheduling (by dropping and adding) or withdrawing within university guidelines.
- Information about the various types of financial assistance available.
- Freedom to evaluate courses, programs and services, and provide input to appropriate segments of the campus administration.

EAST TENNESSEE STATE UNIVERSITY

Accreditation

East Tennessee State University is accredited by the Commission on Colleges, Southern Association of Colleges and Schools to award baccalaureate, masters, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, telephone 404-679-4500, or Website: www.sacscoc.org with any question regarding the accreditation of East Tennessee State University.

Memberships

- The American Council on Education
- The American Association of State Colleges and Universities
- The Tennessee College Association
- The Council for Advancement and Support of Education
- The Council of Graduate Schools in the United States
- The Council of Southern Graduate Schools
- The Council on Undergraduate Research
- The Tennessee Conference of Graduate Schools
- Association of Academic Health Centers
- Oak Ridge Associated Universities
- Institute of International Education
- National Collegiate Athletic Association
- Southern Conference

ETSU Vision Statement

To become the best regional university in the country

ETSU Values

ETSU pursues its mission through a student-centered community of learning reflecting high standards and promoting a balance of liberal arts and professional preparation, continuous improvement, and based on core values where:

- PEOPLE come first, are treated with dignity and respect, and are encouraged to achieve their potential;
- RELATIONSHIPS are built on honesty, integrity, and trust;
- DIVERSITY of people and thought is respected;
- EXCELLENCE is achieved through teamwork, leadership, creativity, and a strong work ethic;
- EFFICIENCY is achieved through wise use of human and financial resources; and
- COMMITMENT to intellectual achievement is embraced.

ETSU Mission and Purpose Statement (approved by Tennessee Board of Regents 5/28/2014)

East Tennessee State University prepares students to become productive, enlightened citizens who actively serve their communities and our world. Education is the university's highest priority, and the institution is committed to increasing the level of educational attainment in the state and region. The university conducts a wide array of educational and research

programs and clinical services and is the only Academic Health Sciences in the Tennessee Board of Regents System. Through research, creative activity and public service ETSU advances the cultural, intellectual and economic development of the region and the world.

- ETSU endorses the value of liberal education and provides enriching experiences in honors education, student research and creative activity, study abroad, service learning and community-based education.
- ETSU honors and preserves the rich heritage of Southern Appalachia through distinctive education, research and service programs and is actively engaged in regional stewardship.
- ETSU affirms the contributions of diverse people, cultures and thought to intellectual, social and economic development.
- ETSU awards degrees in over one hundred baccalaureate, masters and doctoral programs, including distinctive interdisciplinary programs and distance education offerings that serve students from the region and beyond.

GATTON COLLEGE OF PHARMACY

The Gatton College of Pharmacy is an integral component of the Academic Health Sciences Center at ETSU which also includes J.H. Quillen College of Medicine, the College of Public Health, the College of Clinical and Rehabilitative Health Sciences and the College of Nursing. Gatton College of Pharmacy is physically located on the grounds of the J.H. Quillen Veterans Affairs Medical Center (Mountain Home) in Johnson City. The college of pharmacy's professional program, leading to a Doctor of Pharmacy Degree (PharmD), is designed to prepare pharmacists to work in a variety of professional arenas, with emphasis on rural and underserved communities.

History

The university along with community leaders had been investigating the feasibility of initiating a college of pharmacy for over a decade. Given the state's only college of pharmacy was almost 500 miles away, most students from this region chose to attend out-of-state public and private institutions for their pharmacy education. As a result, few returned to this area to practice. That fact, plus the lack of state funds for a second state-funded college of pharmacy, fueled the demand for pharmacists in this Southern Appalachian region.

In January 2004, a tuition-funded, rural-focused model was developed as a possible solution to this dilemma. Realizing that considerable private support would be necessary for the model to work, a steering committee led by the Vice President for Health Affairs and comprised of ETSU faculty and staff, pharmacy community leaders, and community leaders at-large began to develop and implement such a plan.

After extensive effort, approval was obtained from the Tennessee Board of Regents and the Tennessee Higher Education Commission in the summer of 2005. Governor Phil Bredesen lent his support to this effort with the challenge to raise \$5 million in 90 days and an additional \$2.5 million before the first class of students entered the program. The \$5 million was raised in 58 days, and the College of Pharmacy passed the \$7.5 million mark on April 3, 2006, with Governor Bredesen personally making the announcement at ETSU. Recognizing the value of a College of Pharmacy at ETSU, over 900 individuals and organizations contributed financially to this effort. With the support and energy from the people of this region, the College of Pharmacy became a reality as the inaugural class of students began studies January 2007.

On May 22 2008, the College of Pharmacy was named the Bill Gatton College of Pharmacy at East Tennessee State University in honor of Bill Gatton, a local philanthropist, whose generosity made the establishment of the ETSU pharmacy school possible.

May 8, 2010 marked the achievement of a major milestone for the College as the first graduates (66 students) were hooded and received their diplomas. Full accreditation was received June 2010.

Accreditation

East Tennessee State University Bill Gatton College of Pharmacy's Doctor of Pharmacy program is fully accredited by the Accreditation Council for Pharmacy Education (ACPE), 135 S. LaSalle Street, Suite 4100, Chicago, IL 60603, 312/664-3575, fax 312/664-4652, website www.acpe-accredit.org. The ACPE accredits Doctor of Pharmacy programs offered by Colleges and Schools of Pharmacy in the United States and selected non-US sites.

Membership

American Association of Colleges of Pharmacy

Diversity

The Gatton College of Pharmacy and East Tennessee State University strive to develop an environment where the value of diversity among students, faculty and staff is accepted, encouraged and embraced. Diversity encompasses differences in race, creed, color, sex, religion, age, national origin, disabilities, veteran status or sexual orientation. The individual characteristics, talents and contributions of all people are valued and recognized for the unique contribution they make to the college.

Vision

The vision of the Gatton College of Pharmacy is to become a recognized leader of pharmacy education in the southeast.

Mission

The mission of Gatton College of Pharmacy is to develop progressive pharmacists that improve healthcare, focusing on rural and underserved communities. The College accomplishes this mission by:

- Providing outstanding education with emphasis on interprofessional education
- Developing and delivering exceptional direct patient care
- Conducting innovative research and scholarship
- Engaging and serving the university, community and profession

Values

The Gatton College of Pharmacy embraces the educational philosophy and values of East Tennessee State University and is committed to the following core values:

Academic Excellence

We strive to achieve excellence in teaching, scholarship, and service to the university, local, and professional communities.

Professionalism, Integrity, and Character

We aim to create an environment that instills professionalism, integrity, empathy, a high standard of ethical behavior, and the highest professional commitment to the patient, the community, and the employer.

A Caring Community

We endeavor to create a caring community characterized by mutual respect, patience, kindness, and generosity; and one that respects, values, and promotes the dignity and diversity of faculty and students.

A Culture of Service

We strive to create a culture that values and promotes service to our patients, school, community, and profession.

Life-long Learning

We pursue a passion for life-long learning and a commitment to personal and professional growth as we serve our patients, community, and profession.

Guiding Principles and Goals to Achieve the Mission

Improving Care Through Excellence in Scholarship

- Provide students with the knowledge, skills, judgment, professional attitudes, and values to deliver contemporary patient care in a changing healthcare environment;
- Promote the development of teaching excellence, innovation, continuous quality improvement, and creativity in the context of interdisciplinary patient-centered care;
- Develop and enhance students' skills in problem solving, critical thinking, and individual and group communication;
- Facilitate and encourage the development of mature, independent, and life-long learners in a diverse student body with different learning styles.

Improving Care Through Excellence in Scholarship

- Recognize, value, and promote scholarly inquiry and outcomes assessment, clear reasoning, and the application of evidence-based practices as a means of improving the health outcomes of patients, especially the care of a rural underserved population;
- Contribute to the advancement of the clinical and basic medical and pharmaceutical sciences through independent and collaborative research, presentation and publication;
- Embrace the scholarship of teaching to optimize educational effectiveness.

Improving Care Through Excellence in Clinical and Professional Service

- Provide and teach pharmacist-delivered patient care, including medication therapy management services, to further advance an evolving profession that benefits society today and in the future;
- Foster a culture of service to the community and profession;
- Advance healthier lifestyles through health promotion, preventive healthcare, and education of the public;
- Promote active student involvement in the profession, community service projects, and volunteer activities;
- Collaborate with the professional community to serve as an agent of positive change, advancing the level of pharmaceutical care practiced within the community, thereby improving healthcare and enriching the lives of patients in the region.

Improving Care Through Professional Development

- Support and mentor faculty in their pursuit of scholarly activity and service recognizing that these activities are essential for continued professional growth;
- Encourage a commitment to and passion for lifelong learning and develop and equip students for postgraduate training;
- Encourage students, faculty, and preceptors to grow as professionals and to optimize their skills and capabilities in providing excellent patient-centered care;
- Support continuing professional development of alumni thereby fostering a positive and continuing relationship with graduates.

Improving Care Through Interdisciplinary Collaboration

- Cultivate an educational environment of inter-professional teamwork and collaboration among students, faculty, staff and administration within the Division of Health Sciences;
- Partner with local practitioners, health-care facilities, organizations, and patients to maximize the professional and educational experiences of our students;
- Create an interdisciplinary and collaborative learning experience as a fundamental model that prepares students for collaborative practice and shared responsibility.

DOCTOR OF PHARMACY DEGREE PROGRAM

Degree Offered

Gatton College of Pharmacy offers the Doctor of Pharmacy degree (PharmD). The PharmD degree¹ is intended to prepare pharmacists who will be able to:

- *provide patient-centered care*, through the ability to:
 - design, implement, monitor, evaluate, and adjust pharmacy care plans that are patient-specific; address health literacy, cultural diversity, and behavioral psychosocial issues; and are evidence-based
 - manage a successful patient-centered practice (including establishing, marketing, and being compensated for medication therapy management and patient care services rendered)
- *provide population-based care*, through the ability to develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmacoeconomic data, medication-use criteria, medication use review, and risk-reduction strategies
- *manage human, physical, medical, informational, and technological resources*, through the ability to ensure efficient, cost-effective use of these resources in the provision of patient care
- *manage medication use systems*, through the ability to apply patient- and population-specific data, quality improvement strategies, medication safety and error reduction programs, and research processes to minimize drug misadventures and optimize patient outcomes; to participate in the development of drug use and health policy; and to help design pharmacy benefits
- *promote the availability of effective health and disease prevention services and health policy* through the ability to apply population-specific data, quality improvement strategies, informatics, and research processes to identify and solve public health problems and to help develop health policy

DiRected Educational Aspirations and Markers of Success (DREAMS)

Adopted by the Faculty Council on November 27, 2012

Consistent with the above, the Gatton College of Pharmacy curriculum prepares graduates to demonstrate the following professional competencies and outcomes, which emphasize good science,* self-directed lifelong learning,[†] and individualized training. Graduates are expected to apply learning to both the present practice of pharmacy and the advancement of the profession, serving as leaders and agents of change.¹ To this end, faculty members aspire to develop graduates that:

1. Display a mastery of fundamental knowledge and skills¹
 - 1.1. Demonstrate knowledge of and accept responsibility for knowledge of commonly used medications, formulations and drug products.¹
 - 1.2. Apply principles of biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences to critically solve problems.^{1,5}

¹ *Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree*. January 15, 2006. Accreditation Council for Pharmacy Education.

- 1.3. Utilize pharmaceutical and pharmacokinetics mathematics to perform accurate medication calculations.¹
 - 1.4. Retrieve, analyze, and interpret the literature.^{1,2,3,5}
 - 1.5. Evaluate the quality of basic science and clinical research evidence to appropriately apply study results to practice decisions.¹
 - 1.6. Demonstrate competency in informatics and emerging technologies.^{1,5}
 - 1.7. Compound drugs in appropriate dosage forms using appropriate safety measures.⁵
 - 1.8. Identify physicochemical properties that affect drug solubility, stability, and pharmacokinetics.
 - 1.9. Predict drug action based on physiological and biochemical concepts.
2. Demonstrate professional attitudes and values¹
 - 2.1. Carry out duties in accordance with legal, ethical, social, cultural, economic, and professional guidelines.^{1,2,3,5}
 - 2.2. Work with individuals of other health professions to maintain a climate of mutual respect and shared values.⁴
 - 2.3. Use the knowledge of one's own role and those of other professions.⁴
 - 2.4. Communicate with patients, families, communities, and other health professionals.^{1,2,4,5}
 - 2.5. Apply relationship-building values and the principles of team dynamics.⁴
 - 2.6. Maintain professional competence by identifying and analyzing emerging issues, products, and services.^{1,2,4,5}
 - 2.7. Reflect critically on personal skills and actions to make improvements, as necessary.³
 - 2.8. Accept and respond to constructive feedback.³
3. Provide excellent patient-centered care¹
 - 3.1. Identify and assess subjective and objective patient data to define health and medication related problems.^{1,3,5}
 - 3.2. Design, implement, monitor, evaluate, and adjust pharmacy care plans that are patient-specific and evidence-based.^{1,2,3,5}
 - 3.3. Provide patient care in cooperation with patients and other healthcare providers as part of an interprofessional health care team.^{1,2,3,4,5}
 - 3.4. Addresses health literacy, cultural diversity, and behavioral psychosocial issues when communicating with patients and when designing, evaluating, or modifying therapeutic plans.^{1,5}
 - 3.5. Counsel patients, caregivers, and other health care providers regarding care plans.^{1,5}
 - 3.6. Demonstrate accurate and appropriate documentation of pharmacy care activities.^{3,5}
 - 3.7. Apply knowledge, skills, attitudes, and values to manage a successful patient-centered practice.^{1,5}
4. Promote health improvement, wellness, and disease prevention^{1,3}
 - 4.1. Identify and mitigate public health problems.^{1,3,5}
 - 4.2. Interpret epidemiologic data relevant to specific diseases and their management.^{3,5}
 - 4.3. Interpret economic data relevant to treatment of disease.³
 - 4.4. Develop and implement population-specific, evidence-based disease management programs and protocols.^{1,2,5}

5. Effectively manage health care resources^{1,3}
 - 5.1. Address the unique needs of rural and underserved communities.⁵
 - 5.2. Manage and use human, physical, financial, informational and technological resources in the provision of patient care.^{1,2,5}
 - 5.3. Provide high-quality, cost-effective healthcare.³
 - 5.4. Provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution.^{1,2,3,5}
 - 5.5. Identify and use risk reduction strategies to minimize medication errors.^{2,3,5}
 - 5.6. Assist patients and care givers to obtain their medications and related parapharmaceuticals in an affordable manner that meets their health care needs.¹
 - 5.7. Interpret and apply drug use policy and health policy.^{1,2,3,5}

Degree Requirements

The Doctor of Pharmacy degree is conferred by East Tennessee State University upon certification by the faculty that the student has successfully completed all requirements. All courses and practice experiences of the approved curriculum, required and elective, must be completed with a minimum passing grade of C. The student must complete the didactic portion of the curriculum (first three years) within five years of initial enrollment, unless the time has been extended for military service.

In addition to completing the prescribed curriculum and meeting the scholarship requirements of the program, students must have satisfied all financial obligations to the College or University in order to qualify for graduation and receipt of the degree.

* Good science implies having the following characteristics: evidence-based, logical, convincing, explanatory, honest, testable, and systematic¹

† Lifelong learning entails continuously building upon existing knowledge and skills throughout one's lifetime

¹ Accreditation Council for Pharmacy Education. *Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree Version 2.0*. 2011.

² American Association of College of Pharmacy. *Center for the Advancement of Pharmaceutical Education Educational Outcomes*. 2004.

³ American Association of College of Pharmacy. *Graduation Survey: Professional Competencies - Outcomes*. 2011.

⁴ Interprofessional Education Collaborative. *Core Competencies for Interprofessional Collaborative Practice*. 2011.

⁵ Gatton College of Pharmacy. *Student Learning Outcome Expectations for the Doctor of Pharmacy Program*. 2008.

Curriculum Structure

First Professional Year

Fall Semester

PMIN 3100	IDEALS I: Integrated Environment for Applied Learning & Skills	1
PMPR 3140	Contemporary Practice of Pharmacy I: Exploring Ourselves, Our Patients & Our Profession	2
PMPR 4182	Communication Skills for Health Professionals	2
PMSC 3114	Pharmaceutical Biochemistry	4
PMSC 3116	Human Physiology	5
PMSC 3122	Pharmacy Calculations	2
PMSC 3133	Pharmaceutics of Drug Delivery Systems	2
IPPE 3312	Introductory Pharmacy Practice - Longitudinal	0.5
Credit Hrs Subtotal		18.5

Spring Semester

PMIN 3200	IDEALS II: Integrated Environment for Applied Learning & Skills	2
PMPR 3240	Contemporary Practice of Pharmacy II: Exploring Ourselves, Our Patients & Our Profession	2
PMPR 3270	Non-Prescription Therapies & Self-Care I	2
PMSC 3202	Immunology	2
PMSC 3204	Pathophysiology: Concepts In Altered Health States	4
PMSC 3223	Foundational Principles: Principles of Pharmacology & Autonomics	2
PMSC 3224	Foundational Principles: Medicinal Chemistry	2
PMSC 3233	Biopharmaceutics & Biotechnology	3
IPPE 3312	Longitudinal - Introductory Pharmacy Practice Experience	0.5
IPPE 3322	Introductory Pharmacy Practice Experience Community I (summer)	2
Credit Hrs Subtotal		21.5

Second Professional Year

Fall Semester

PMIN 4100	IDEALS III: Integrated Environment for Applied Learning & Skills	1
PMPR 4140	Evidence-Based Practice of Pharmacy I	3
PMIN 4110	Integrated Series: Infectious Diseases	3.5
PMPR 4170	Integrated Series: Non-Prescription Therapies & Self-Care II	2.5
PMSC 4124	Principles of Medicinal Chemistry	3
PMSC 4134	Pharmacokinetics and Pharmacogenomics	4
XXXX xxxx	Elective Course(s)*	2
Credit Hrs Subtotal		19

Spring Semester

PMIN 4200	IDEALS IV: Integrated Environment for Applied Learning & Skills	2
PMPR 4240	Evidence-Based Practice of Pharmacy II	3
PMIN 4210	Integrated Series: Cardiovascular	5
PMIN 4220	Integrated Series: Renal	2
PMPR 4283	Pharmacy Law and Ethics	3
PMPR 4233	Principles of Clinical Pharmacokinetics	2
XXXX xxxx	Elective Course(s)*	2

		Credit Hrs Subtotal	19
IPPE 4322	Introductory Pharmacy Practice Experience P2 - Community Focus		2
IPPE 4332	Introductory Pharmacy Practice Experience P2 - Institutional Focus		2
		Credit Hrs Subtotal	4

Third Professional Year

Fall Semester

PMIN 5100	IDEALS V: Integrated Environment for Applied Learning & Skills	2	
PMPR 5140	Advanced Contemporary Practice of Pharmacy I	2	
PMIN 5110	Integrated Series: Neurology & Psychiatry	6	
PMIN 5120	Integrated Series: Endocrinology, EENT & Dermatology	3	
PMIN 5130	Integrated Series: Women's & Men's Health	2	
PMIN 5140	Integrated Series: Gastroenterology & Nutrition	2	
PMPR 5361	Clinical Seminar I	+	
IPPE 5312	Introductory Pharmacy Practice Experience - P3	+	
XXXX xxxx	Elective Course(s)*	2	
		Credit Hrs Subtotal	19

Spring Semester

PMIN 5200	IDEALS VI: Integrated Environment for Applied Learning & Skills	2	
PMPR 5240	Advanced Contemporary Practice of Pharmacy II	2	
	Integrated Series I †		
PMIN 5210	Immunology & Hematology/Oncology	4	
PMIN 5220	Critical Care & Toxicology	2	
PMIN 5230	Pediatrics & Geriatrics	2	
PMIN 5240	Capstone	2	
PMPR 5361	Clinical Seminar I	1	
IPPE 5312	Introductory Pharmacy Practice Experience - P3	1.5	
	Elective Course(s)*	2	
		Credit Hrs Subtotal	18.5

Fourth Professional Year**

PMPR 5461	Clinical Seminar II	1	
APPE 6001	Institutional Practice	4	
APPE 6002	Community Practice	4	
APPE 6003	Acute Care Practice I	4	
APPE 6004	Ambulatory/Primary Care Practice I	4	
APPE 6503 or APPE 6504	Acute Care Practice II or Ambulatory/Primary Care Practice II	4	
APPE XXX	Advanced Practice Electives (complete a minimum of 4)	16	
		Credit Hrs Subtotal	37

Total Degree Credits 156.5

Curriculum Notes

+ Year-long course; Credit awarded in the spring semester of the same professional year

* See information about electives below

**Must complete all didactic courses, IPPEs, and pre-APPE assessments to begin Fourth Professional Year

Elective Courses

Students are required to complete four elective courses (totaling at least eight credit hours) with a minimum passing grade prior to beginning Advanced Pharmacy Practice Experiences. Only approved courses may be used to fulfill this requirement. External research/internship experiences may be utilized to meet requirements if approved by the Curriculum Committee.

Students are expected to enroll in electives as sequenced in the curriculum outline; however, requests for enrolling in electives out of sequence may be made. Students can enroll in only one elective in any one term unless expressly permitted to enroll in more. Such variations require approval by the Associate Dean for Academic Affairs (ADAA) and are considered on a case-by-case basis. Students may complete additional electives in excess of the requirements with written permission; however, these courses become part of the student's academic record and grades will be calculated in the student's GPA. Students should refer to the GCOP Student Handbook for complete information about scheduling electives

Professional Experience Program (PEP)

Students are required to participate in the Professional Experience Program during all four years of the curriculum. Many of these experiences are offered in practice sites away from Johnson City. The student should be prepared to incur additional expenses while on Introductory or Advance Pharmacy Practice Experiences. Assignments will normally be made as early as possible, giving the student time to secure housing and make plans for off-campus experiences. In addition, enrollment in experiential education courses requires continued compliance with immunization and training requirements.

Professional practice experiences are developed by the responsible faculty member and are approved by the College's Curriculum Committee. Students may recommend clinical sites for experiential rotations but cannot make arrangements with individual practitioners or agencies. All clinical experiences must be undertaken at sites with formal contracts between the affiliate and the College of Pharmacy, and with preceptors who hold formal appointments in the College or have some formal relationship with the College. Contracts or appointments, and preceptors and sites, need to be consistent with the philosophy and objectives of the educational program. This involves an assessment of the affiliate and/or potential faculty member to ensure a quality learning experience for the student.

If a student wishes to recommend a particular clinical site or practitioner for a rotation, please contact the Director of Experiential Education. Please remember there are site and practitioner requirements that limit where and when students may be assigned, and not all sites may qualify. Students cannot be placed at an experiential site until all paperwork is completed and formal approval is given by the Director of Experiential Education.

Students will not be placed in sites where there is a conflict of interest in evaluating student performance. Such conflicts include, but are not limited to, assignment to a relative or close family friend, assignment to a site where the student has been or is currently employed, or assignment to a preceptor who has a fiduciary relationship with the student or a family member of the student.

Articulated Joint Degree Programs

PharmD/Masters of Business Administration

Bill Gatton College of Pharmacy students can simultaneously pursue an MBA degree from the College of Business and Technology while completing the PharmD degree. The program is designed to provide students with a broader perspective on business that will strengthen a graduate's ability to engage in pharmacy management within a variety of health care settings. The joint degree program is structured such that students can complete both degrees within a four-year period of time (general curriculum structure below). Students complete MBA courses at specified points in the PharmD curriculum and during the summer following the second and third years of pharmacy school.

<u>Year One</u>	<u>Year Two</u>
<ul style="list-style-type: none"> -- All PharmD coursework -- Apply for admission to MBA program 	<ul style="list-style-type: none"> -- PharmD coursework -- 5 MBA classes (accelerated format) 2 of count as PharmD electives
<u>Year Three</u>	<u>Year Four</u>
<ul style="list-style-type: none"> -- PharmD coursework -- 4 MBA classes (accelerated format) 2 count as PharmD electives 	<ul style="list-style-type: none"> -- PharmD Advanced Practice Experiences

PharmD/Masters of Public Health

Bill Gatton College of Pharmacy students can simultaneously pursue an MPH degree from the College of Public Health while completing the PharmD degree. The program is designed to provide students a broad perspective that could help solve health problems on a large scale and is an excellent choice for students interested in careers in public health leadership. Students enroll in MPH courses at specified points in the PharmD curriculum (general curriculum structure below). During the fourth year of the joint degree program, students will devote one full year of study as an MPH student within the College of Public Health before returning for their fifth and final year at the College of Pharmacy.

<u>Year One</u>	<u>Year Two</u>
<ul style="list-style-type: none"> -- All PharmD coursework -- Apply for admission to MPH program 	<ul style="list-style-type: none"> -- PharmD coursework -- 1 core MPH class each semester (count as PharmD electives)
<u>Year Three</u>	<u>Year Four</u>
<ul style="list-style-type: none"> -- PharmD coursework -- 1 core MPH class each semester (count as PharmD electives) 	<ul style="list-style-type: none"> -- No PharmD coursework -- All MPH coursework in concentration (24 hours)
<u>Year Five</u>	
Complete PharmD clinical rotations	

Contact the Office of Student Affairs (423-439-6338 or pharmacy@etsu.edu) for information about the admission process and requirements for the joint degree programs.

ADMISSIONS

Admission to the Gatton College of Pharmacy at East Tennessee State University is based on a competitive selection process involving applicants who meet the minimum requirements for admission. The Admissions Committee endeavors to select for admission applicants who are the best qualified, with an emphasis on those who demonstrate a desire and propensity for rural pharmacy practice and an interest in rural health. The Gatton College of Pharmacy uses a rolling admission process which allows for interviews and final action on applications throughout the admission cycle. The College is committed to increasing the number of qualified pharmacists from currently underrepresented minority groups and from disadvantaged backgrounds. The school actively promotes and encourages applicants from these groups.

Pre-Pharmacy Studies

Pre-professional preparation should be in an area chosen strictly according to the interest of the individual student. A specific major or minor course of undergraduate study for entering students is not advocated. A well-rounded undergraduate education is highly desirable, and students are encouraged to pursue the undergraduate program of their choosing. In addition to acquiring specific knowledge, the pre-pharmacy student should acquire certain basic skills and aptitudes such as the ability to read with speed, comprehension, and retention; the ability to understand concepts and draw logical conclusions; the ability to adapt quickly to new and different circumstances; and the ability to communicate effectively in all circumstances. Evidence of such is sought throughout the admission process as these skills and abilities are essential in becoming a practicing pharmacist and a self-directed, lifelong learner.

Course Prerequisites

Admission to the Doctor of Pharmacy degree program requires that applicants complete at least 61 semester hours of undergraduate courses as specified below. Courses must be from a U.S. accredited college or university. The prerequisites provide the minimum academic background essential to pharmacy education. Applicants who exceed the minimum stated requirements are more competitive.

Prerequisite coursework must be completed by the end of First Summer Session/Summer Session I prior to entrance into pharmacy school. Exceptions may be granted. Applicants who are in the process of completing prerequisites at the time of application should note these on their PharmCAS application as in progress or planned courses. All prerequisite coursework must be completed with a grade of C- or higher.

Foreign coursework may only be considered in cases where the applicant has earned the equivalent of a baccalaureate degree (or higher) at an accredited institution. A foreign transcript evaluation report (FTEER) must be submitted through PharmCAS.

Courses ¹	Semester Hours
General Biology and Lab ²	4
Microbiology and Lab ²	4
Biology Elective ²	3
General Chemistry and Lab ²	8
Organic Chemistry and Lab ²	8
General Physics and Lab ²	4
Calculus	3
Statistics	3
Economics	3
Composition (Any writing-intensive course in the English area is acceptable.)	3
Oral Communication	3
Additional Writing-Intensive Course or Oral Communication Course	3
Social Sciences, Behavioral Sciences, and/or Humanities Electives	9
General Elective (science course recommended)	3

¹ Applicants who will have earned a bachelor's degree by the end of the spring 2016 term immediately preceding enrollment are considered to have met the general education requirements and only have to meet math and science prerequisites.

² Course must count toward that major or a science degree

Use of Advanced Placement or CLEP Credit

Advanced placement credit, CLEP credit, or other nontraditional credit in required non-science courses awarded by a regionally accredited college or university may be utilized to satisfy academic prerequisites. Such credit may also be utilized to satisfy prerequisite science courses provided that applicants have taken additional course work in the same discipline. Prospective students should be aware that portions of the professional curriculum require solid skills in algebra and basic integral calculus, and those math skills, if not used, may quickly diminish. As such, we strongly recommend that incoming students take appropriate steps to insure a high level of mathematical aptitude

Early Decision Program

The College participates in the Pharmacy College Application Service (PharmCAS) early decision admission program. This program allows highly competitive applicants who are committed to attending the Gattton College of Pharmacy the opportunity to secure an

admissions acceptance early during the admissions cycle. Applicants choosing this program cannot apply to any other pharmacy school prior to receiving a decision and agree to attend the Gatton College of Pharmacy, if accepted.

The deadline to apply as an Early Decision applicant is set annually by PharmCAS but is typically the first Monday in September. Early Decision applicants are assured of receiving an admission decision in late October. Please note that Early Decision applicants are not given preference over regular decision applicants by the Admissions Committee.

Admission Eligibility

Applicants must be a U.S. citizen, possess a U.S. Permanent Resident Visa (Green Card), have been granted political asylum or refugee status to be eligible for admission, or be eligible for an International Student Visa. Proof of eligibility is required for non-U.S. citizens. Additionally, pursuant to Tennessee Public Chapter No. 1061-SB No. 1325 known as the Tennessee Eligibility Verification for Entitlements Act (TEVA) applicants claiming U.S. citizenship status may be required to provide proof upon matriculation.

Applying for Admission

Applicants will be considered for admission only after a complete admission file has been submitted to the Admissions Committee. A complete admissions file consists of a PharmCAS application, PCAT scores, and letters of reference. See below for detailed information regarding each of these items.

PharmCAS Application

Application is made using the Pharmacy College Application Service (PharmCAS) via their website, www.PharmCAS.org.

Pharmacy College Admission Test (PCAT)

All applicants are required to report official scores from the Pharmacy College Admission Test (PCAT) by the deadline. Applicants report scores directly to PharmCAS (code 104). The PCAT must be taken within 3 years of the application deadline.

Under certain conditions, a Preliminary Score Report may be utilized to expedite processing of an application. The applicant will receive information regarding this report once their PharmCAS application is received by the College. Applicants must still submit official scores as stated above by the specified deadline. Offers of acceptance are contingent upon verification of scores.

Applicants are advised to structure a curriculum that prepares them adequately for the PCAT. Information regarding the PCAT may be obtained from the applicant's pre-professional advisor or at www.PCATweb.info.

Letters of Reference

Two letters of reference are required and must be submitted through PharmCAS. One letter must be from a science faculty member (natural sciences) who has taught the applicant or from the pre-health advising office at the applicant's academic institution. This letter should

address the applicant’s academic performance and academic potential as a future Student Pharmacist. The second letter may be from a source of the applicant’s choosing; however, a letter from a pharmacist or other source who can attest to the applicant’s potential as a future health care professional is highly recommended. Letters from the following evaluators will not be counted toward the two letters of reference: clergy, co-worker, friend, and politician. Under no circumstances will letters from family members be accepted.

Interview

An in-person interview with members of the Admissions Committee is required. Only selected applicants will be invited to interview (all related expenses are the sole responsibility of the applicant). Interview dates are scheduled directly with the applicant by the Admissions Office. An invitation to interview does not guarantee admission or imply any specific action on the part of the Admissions Committee.

Class Reservation Deposit

Upon notification of acceptance to the Gatton College of Pharmacy, the applicant will be required to pay a non-refundable class reservation deposit of \$500.

Deferred Matriculation

Accepted applicants may request deferred entrance into the Gatton College of Pharmacy until the next class for previously unforeseen circumstances. In order to request deferred matriculation, the applicant must submit a written request explaining why a later matriculation is desired. The applicant, if approved for deferment, will be required to sign a contract agreeing to comply with specific conditions. Requests for deferred matriculation must be made in writing no later than June 30 immediately preceding expected matriculation.

Application Deadline

	Early Decision Applicants	Regular Applicants
Receipt by PharmCAS of application, fee, and all transcripts	September 8, 2015	March 1, 2016
Deadline for all required supporting materials (i.e., PCAT scores and letters of reference)	September 21, 2015	March 21, 2016

Selection Criteria

The Admissions Committee evaluates applicants on the basis of demonstrated academic achievement, PCAT scores, letters of reference, pertinent extracurricular activities, evidence of non-scholastic accomplishments, evidence of strong knowledge and understanding of the profession, and demonstrated motivation for the study and practice of pharmacy consistent with the mission of the Gatton College of Pharmacy. Criteria for admission are integrity, willingness and ability to assume responsibility, high scholastic achievement, maturity, intellectual curiosity, and sound motivation.

Academic Considerations

In evaluating the applicant's coursework, the Admissions Committee examines the time frame and difficulty of the pre-pharmacy course schedule, the correlation of the academic record with the PCAT scores, and extracurricular activities (particularly activities such as concurrent employment, collegiate athletics, and philanthropic/service activities) as an indication of the potential to succeed in the academically rigorous pharmacy curriculum.

Applicants are expected to possess a solid academic foundation, particularly in the sciences and mathematics. Applicants who have taken prerequisite coursework more than 10 years prior to the application deadline should demonstrate contemporary content knowledge. This can be accomplished by acceptable performance on the PCAT and/or work experience. Such applicants are encouraged to address this issue in the PharmCAS personal statement.

All prerequisite coursework must be completed prior to enrollment; however, students who will have completed the prerequisites by the end of the spring semester prior to desired enrollment will be more competitive for admission. Similarly, applicants completing the typically more demanding science courses by the end of the fall semester are more competitive. Applicants are strongly discouraged from leaving a significant number of prerequisites for completion during the summer preceding anticipated enrollment in pharmacy school.

Experience

It is expected that applicants have a clear understanding of the pharmacy profession. Each application is examined for evidence of an applicant's firsthand exposure to health care as an indication of the applicant's motivation and that the applicant is familiar with the realities of pharmacy as a career. Applicants without pharmacy work experience should consider volunteering, shadowing a pharmacist, or extensively researching the profession prior to applying for admission.

Residency

The Gatton College of Pharmacy gives preference to applicants who are residents of Tennessee and residents of our contiguous Appalachian service area who are interested in our emphasis on the practice of rural pharmacy. Because the Gatton College of Pharmacy is a tuition-funded program, tuition is the same for all students regardless of residency.

Reconsideration of Admissions Committee Decision

It is the policy of the College that it will not review or reconsider any admissions decision unless significant new information, which was not available at the time of the original decision, is discovered. The College reserves the sole right to determine the significance of any new information presented. Requests for reconsideration are rarely granted.

Technical Standards for Admission

Pharmacy education requires that the accumulation of scientific knowledge be accompanied by the simultaneous acquisition of professional skills. PharmD graduates must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care.

The Admissions Committee considers any applicant demonstrating the ability to perform or learn to perform the skills listed below. These skills and abilities are assessed during the interview and throughout the PharmD program. Students must possess the scholastic, physical and emotional capacities to meet the full requirements of the school's curriculum. These standards describe the essential functions students must demonstrate in order to fulfill the requirements of a general pharmacy education, and thus are prerequisites for entrance to and continuation at Bill Gatton College of Pharmacy. The Admissions Committee asserts that the following minimum technical standards must be present in prospective candidates and students continuing in the program.

Technological compensation can be made for some disabilities in certain areas, but a candidate should be able to perform in an independent manner. Bill Gatton College of Pharmacy, in conjunction with ETSU Office of Disability Services and in compliance with Section 504 of the 1973 Vocational Rehabilitation Act and the Americans with Disabilities Act of 1990, will make appropriate accommodations to facilitate enrollment and program participation of qualified individuals with temporary or permanent disabilities. It is the student's responsibility to notify ETSU Office of Disability Services in a timely manner to determine if he or she is eligible to receive accommodations.

Observation

Candidates should be able to use visual and other sensory modalities to observe demonstrations and experiments in the class-based setting and to make observations in practice-based activities. They should be able to observe a patient accurately. They must be able to note and interpret verbal and non-verbal communication cues displayed by the patient.

Communication

Effective communication skills include the ability to ask questions and to thoughtfully receive, record, and disseminate information. Candidates should be able to employ speech, reading, writing, and computer literacy skills to communicate effectively in the English language with patients, caregivers, faculty and staff, peers, and all members of the healthcare team.

Sensory and Motor

Candidates should have functional use of the senses of equilibrium, smell, and taste, as well as sufficient motor function (gross and fine) and coordination to execute movements required to carry out functions necessary to the practice of pharmacy. They must also have somatic sensation and the functional use of the senses of vision and hearing; sufficient exteroceptive sense (touch, pain, and temperature); and sufficient proprioceptive sense (position, pressure, movement, stereognosis, vibratory).

Conceptual, Integrative, and Quantitative

Candidates' intellectual skills and learning techniques must allow them to complete a rigorous and complex didactic and experiential curriculum. They must be able to learn through a variety of modalities including, but not limited to, classroom instruction, small

group activities, individual study, preparation and presentation of reports, and use of computer technology. Candidates must be able to consistently, quickly, and accurately integrate information regarding patient assessment and therapeutic planning, as appropriate for each stage of their education. They must be able to convey this information in a manner and speed appropriate to the situation. When appropriate, they must be able to identify and communicate the limits of their knowledge to others and be able to recognize when the limits of their knowledge indicate that further study or investigation is necessary before participating in decision-making.

Behavioral and Social

Candidates must possess the emotional and mental health required for full utilization of intellectual abilities. They must cultivate and maintain a professional demeanor that is able to tolerate workloads that are physically, mentally, and emotionally taxing, and to function effectively under stress or with distractions. They must exercise good judgment and maintain professional ethical standards. Candidates must possess compassion, integrity, interpersonal skills, and motivation to excel in the practice of pharmacy. They must be able to modify their behavior in response to constructive criticism.

Transfer Applicants

Students desiring to transfer into the professional program from another ACPE accredited college of pharmacy will be evaluated on an individual basis; however, transfer admission is contingent upon space availability. Transfer applicants must meet the same requirements as a first-time PharmD applicant. Additionally, transfer applicants must be in good standing with (i.e., eligible to return to the pharmacy school previously attended) and should have a competitive grade point average.

Transfer applicants apply directly to the Gatton College of Pharmacy by completing the transfer application (found on the web at www.etsu.edu/pharmacy). Transfer applicants are required to submit an official transcript from all post-secondary institutions attended, a copy of PCAT scores, and letters of reference as specified on the application. If the transfer applicant is determined to be qualified for admission, a personal interview will be arranged. Applicants are also required to submit course syllabi for all pharmacy school courses completed for which credit is desired.

Transfer credit awarded and academic classification are determined based upon review of the transcripts and syllabi. Transfer students are required to complete at a minimum the last two years of the curriculum in order to receive the PharmD degree from the Gatton College of Pharmacy.

Interested applicants are encouraged to contact the Office of Student Affairs prior to applying.

Matriculation Requirements for Entering Students

Criminal Background Checks

The Gatton College of Pharmacy is committed to providing the public with well-trained pharmacists who possess the traits of high moral character and standards. Within Tennessee

and nationally, due to state legislative and accreditation requirements, many healthcare entities require all people working in their settings to submit to a Background Check (BC). These institutions may require individuals training to become healthcare practitioners to undergo a BC before participating in any educational/patient care activities at their sites. Additionally, many states require a BC for all individuals seeking a license to practice healthcare within the state.

In light of the foregoing, the College has concluded that it is in the best interest of the College, our partner institutions, patients, and students for the College to determine at the outset if students seeking to complete the PharmD pose a potential risk, and whether such students meet eligibility requirements to participate in patient care activities at affiliated health care institutions by requiring all accepted applicants to undergo a BC as a condition of initial enrollment. This check shall be completed in a usual manner utilizing the services of recognized background screening company selected by the College. Enrollment is contingent upon satisfactory evaluation of the results of the BC. Results of the BC may also be released to affiliated institutions that require this information for student participation in patient care activities.

A letter from the College indicating a conditional acceptance will include notice of the BC requirement. Conditionally accepted applicants are required to cooperate completely with the College, or other authorized/approved investigative agency in granting permission/authorization for the BC to be completed in a timely manner. All costs associated with the BC are the responsibility of the student and shall be paid directly to the vendor.

If an issue that may preclude a student's enrollment or participation in academic activities is identified, the case will be considered by an administrative subcommittee of the College, which shall evaluate the information relative to the finding and make a recommendation regarding the individual's suitability for enrollment. The recommendation will be forwarded to the Dean of the College of Pharmacy for a final decision.

Health and Immunization

As a prerequisite for enrollment, Gatton College of Pharmacy students are required to demonstrate receipt of appropriate immunizations and/or testing for protection against exposure to certain infectious diseases as detailed below. Acceptable documentation must be submitted to the Office of Student Affairs by the specified deadline prior to initial matriculation. Failure to comply may result in the student not being allowed to enroll or permitted to participate in practice experiences.

Measles, Mumps, Rubella (MMR): Proof of immunity to measles (rubeola), mumps and rubella is required of all students through the documentation of receipt of two MMR vaccines. The first dose must have been given on or after the first birthday. MMR vaccinations must be given at least 30 days apart. Alternately, the student may prove immunity through documentation of blood serum titer indicating immunity.

Hepatitis B: Proof of immunity against hepatitis B is required of all students. Students are required to complete the vaccination series which consists of three

injections given at recommended intervals. Additionally, students are required to obtain a blood serum titer test that demonstrates the student has developed an adequate level of antibody protection to indicate immunity. The titer should be received 1-2 months after completing the series of three injections.

If the hepatitis B titer is negative following completion of the initial series of three injections, the student will be required to repeat the series and have a repeat titer drawn. If the titer remains negative, the student will be required to receive appropriate clinical consultation.

Tetanus-Diphtheria: A current tetanus-diphtheria booster is required for all students. Students must provide documentation of receipt of a booster vaccine within 10 years of their expected graduation date. Effective October 2005, the CDC recommends administration of the TDAP in place of Td to promote protection against pertussis.

Varicella (chickenpox): Consistent with state law, students must demonstrate immunity to varicella through documentation of receipt of the varicella vaccination series or documentation of a blood serum titer indicating immunity.

Tuberculin (TB) Screening: Annual TB screenings are required while the student remains enrolled. The first screening should occur no earlier than June 1 of the year prior to initial enrollment in the College. If a student receives a positive test or has a history of testing positive, he or she will be required to provide documentation of a chest x-ray and the results thereof, including the recommendation and outcome regarding any therapy.

Acceptable Documentation: All documentation submitted in response to the above requirements must include the date of each immunization and/or titer as well as the results of the titer. Acceptable documentation may include a statement or progress notes from a healthcare provider; copy of immunization record; or copy of laboratory reports, as appropriate.

Acknowledgment of Information about Infectious Diseases: In accordance with legislation of the General Assembly, all students, upon initial enrollment in a postsecondary education institution, shall be informed of the risk factors and dangers of certain infectious diseases. Students are required to complete and sign a form that includes detailed information about hepatitis B (HBV) and meningococcal meningitis.

Transcripts

Entering students are required to submit an official transcript from ALL colleges or universities attended to the Admissions and Records Office directly from the institution. Transcripts marked issued to student will not be accepted without expressly given permission. Transcripts for courses in which the student is enrolled during the summer prior to matriculation should be sent after the summer grade and/or degree is posted.

Basic Life Support Certification

The Gatton College of Pharmacy requires that all student pharmacists be certified as having completed an approved basic life support (BLS) training program. Students are required to maintain certification throughout their entire pharmacy education program. All trainings are at the expense of the individual student. Documentation must be submitted to the Office of Student Affairs by the specified deadline prior to initial matriculation.

Insurance Requirements

Professional Liability Insurance

All PharmD students are required to carry professional liability insurance. Low cost coverage specifically designed for pharmacy students is available through Pharmacists Mutual Insurance Company. The premium is charged to the student's account upon registration.

Medical Insurance

Bill Gatton College of Pharmacy requires all students to carry and maintain health insurance while enrolled. Students annually must provide proof of insurance.

Required Trainings

Immunization Certification

Students will be required to complete the American Pharmacists Association (APhA) Immunization Certification training during the first month of the first professional year. Training will be scheduled as part of the Introductory Pharmacy Practice Experience (IPPE). This certification consists of a self-study exam, a didactic lecture, a final exam and a practicum. This certification will be at the expense of the individual student. The certification will be active as long as the individual maintains active BLS certification.

Occupational Safety and Hazard Administration Certification

Students will be required to complete an online occupational safety and health (OSHA) training to prepare them for participation in PPEs. The training is completed via an independent study program and must be completed before a student will be allowed to begin his/her introductory PPE. Annual training is required.

Sexual Harassment Training

Consistent with the university's mission and vision, the Gatton College of Pharmacy is committed to treating people with dignity and respect. This ideal involves all employees and students as we strive to work together in an atmosphere conducive to building relationships on honesty, integrity, and trust. Towards this end, student pharmacists will be required to complete training in Preventing Sexual Harassment upon initial enrollment in the College. The training is complete online as a self-study program. Students are required to submit a copy of the certificate of completion to the Office of Student Affairs.

Computer Requirements

All students are required to have a personal laptop computer appropriately configured to be compatible with university and college physical facilities, and Desire2Learn (D2L) on the web. D2L is a web-based teaching and learning tool utilized by the faculty for course

delivery. Laptop computers are necessary for: retrieving course materials, including syllabi and handouts; retrieving primary literature and conducting internet searches; taking notes in class, if permitted by the instructor; taking in-class exams and quizzes as required; and other projects and writing assignments. The large classrooms have wired internet access; other areas in the College of Pharmacy have wireless access to the ETSU network.

Students are expected to provide their own printing hardware and supplies. Other devices may suffice for many tasks, but the student is responsible for having functional and personal equipment for any in class quiz, exam, or exercise. Recommended minimum computer specifications can be found on the web at www.etsu.edu/pharmacy.

EXPENSES AND FINANCIAL AID

Annual Cost of Attendance

(First-year costs based on 9 months; budgets for all years can be found on the web at http://www.etsu.edu/pharmacy/administration/financial_aid/4yr_budget.php)

Tuition and Fees¹	\$35,450
Tuition ²	34,018
Student Fees	1,414
Liability Insurance	18
Indirect Costs	\$10,136
Health Insurance (estimated)	2,136
Books and Supplies (<i>P1 year; subsequent years less</i>)	1,290
Transportation	4,190
Miscellaneous	2,520
Room and Board	\$10,864
Housing	5,766
Living Expenses	5,098
Estimated Federal Loan Fees	\$1,200
Total Base Budget (P1 year)	\$57,650

¹Tuition and fees are set annually by Tennessee Board of Regents

²Tuition is the same regardless of residency

Financial Aid

Pharmacy students are served by the College's Financial Aid Office. The office makes every effort to assist pharmacy students in securing the financial resources to attend the College. Financial aid is awarded on the basis of demonstrated need, which is the annual cost of attendance less the expected family contribution as calculated by the federal government from information provided on the Free Application for Federal Student Aid (FAFSA).

Financial aid available to student pharmacists consists of federally sponsored programs and limited scholarships. Students may only borrow up to the cost of attendance (tuition, fees, living expenses, transportation, and personal and miscellaneous expenses). Student budgets are based on the expected educational expenses of the student; as such, it is increased only under extenuating circumstances.

In order to apply for any of the federal aid programs, a student must submit a FAFSA and indicate the Gatton College of Pharmacy as the college he or she plans to attend (Federal School Code E01254). Students eligible for the Tennessee Educational Lottery Scholarships should submit the FAFSA no later than April 1 of each year in order to ensure consideration for receipt of the lottery scholarship. The FAFSA may be completed online at <http://www.fafsa.ed.gov/>.

When completing the FAFSA, first-year student pharmacists will answer questions about their student status differently depending upon how many semester credit hours they will have earned prior to beginning the PharmD program (see table below). Student pharmacists

who have earned less than 72 undergraduate semester credit hours will be considered undergraduates for the entire academic year for financial aid purposes. All other students will be considered professional students. Students who are considered professional students are no longer eligible for federal and state grants (e.g., Pell grant); however, students categorized as such are eligible for higher annual and aggregate loan amounts under the federal student loan program. Additionally, the professional classification allows students to be considered “independent” from their parents for most federal aid programs thus eliminating the requirement to report parental income on the FAFSA.

	Less than 72 hours completed	72 hours or more completed
What degree or certificate will you be working on during the 2015 -2016 year?	1 st Bachelor’s degree	Graduate or professional degree
What will be your grade level when you begin the 2015 – 2016 year?	3 rd year/Junior	1 st year graduate/professional
Will you have your first bachelor’s degree before July 1, 2016?	No	Answer accordingly

The federal government has the authority of selecting students for verification of information on the FAFSA. If selected, a student must submit a signed copy of the base year income tax form, W-2 form and the verification worksheet to the Office of Financial Aid.

Questions regarding financial aid for student pharmacists should be directed to College of Pharmacy Office of Financial Aid which may be reached by email (copfa@etsu.edu), phone (423-439-6238) or in person (VA Building 7, Room 214).

Satisfactory Academic Progress for Financial Aid

Students are required to maintain satisfactory progress toward their degree in order to be eligible for federal financial aid programs. The Gatton College of Pharmacy’s Policy of Satisfactory Academic Progress requires students to meet both a qualitative and a quantitative standard. All students must complete the curriculum of each year and receive a grade of “C” or better in all required courses before advancing to the next professional year of study or graduating. Students must complete all didactic requirements within five academic years. This time limit may be extended for interruption by military service where enrollment is resumed immediately upon release from service.

The Academic Progression Committee (APC) makes the determination for Satisfactory Academic Progress. The committee is responsible for reviewing the progress of students at the end of each semester. Continued enrollment, remedial work and/or repeat of one or more courses, must be approved by the APC; such approval implies the student is making satisfactory academic progress. Therefore, the continued enrollment as a student serves as indication the student is maintaining satisfactory academic progress. Financial Aid is notified of significant actions of the APC for monitoring purposes to ensure compliance with Title IV regulations.

Grants, Scholarships, and Awards

The Gatton College of Pharmacy continues to explore the creation of grants, scholarships and awards. The most current information is maintained by the Office of Financial Aid and is available on the web at www.etsu.edu/pharmacy.

Veterans Education Benefits

The College of Pharmacy is approved for the training of veterans and other eligible persons under education benefit programs of the U.S. Department of Veterans Affairs (USDVA). The University Veterans' Affairs Office, which coordinates the delivery of military-related educational benefits of the USDVA to eligible service members, veterans, and certain disabled veterans dependents, can provide information and application assistance to student pharmacists who might be eligible for receipt of such assistance. Veterans Affairs is located in 101A Burgin E. Dossett Hall (administration building) on the main campus and can be contacted at 423.439.6819 or va@etsu.edu.

Primary entitlement programs administered by the Veterans Affairs office are:

- Montgomery GI Bill – Active Duty (MGIB-AD) Educational Assistance Program [Authority: Chapter 30, Title 38 *United States Code (USC)*];
- Vocational Rehabilitation & Employment (VR&E) Program [Authority: Chapter 31, Title 38 *USC*];
- Reserve Educational Assistance Program (REAP) [Authority: Chapter 1607, Title 10 *USC*];
- Montgomery GI Bill – Selected Reserve (MGIB-SR) Educational Assistance Program [Authority: Chapter 1606, Title 10 *USC*];
- Survivors' & Dependents' Educational Assistance (DEA) Program [Authority: Chapter 35, Title 38 *USC*];
- Veterans' Work-Study Allowance Program [Authority: Chapters 30, 31, 35 of Title 38 & Chapters 1606 & 1607 of Title 10 *USC*];
- Veterans' Tuition & Fee Deferment Program [Authority: § 49-7-104 *Tennessee Code Annotated (TCA)*]

Information on the above federal programs, except VR&E and state programs, may be found at www.gibill.va.gov. VR&E information can be found at www.vba.va.gov/bln/vre/.

Tuition and Payment

Students are required to make arrangements for payment of all university fees by the start of classes each semester. A student's registration is not completed until the university receives payment for the current amount due the university. Students who have loans, grants, scholarships, state or federal vocational rehabilitation, or any other type of financial aid covering all fees will have these funds applied to their student fees; all others should make payment through the Bursar's Office by cash, check or credit card. If payment is made with a check that is not honored (acknowledged bank errors withstanding), a late fee will be charged when the student redeems the unpaid check. If the unpaid check is not redeemed within 10 days of return, the student may be unenrolled.

Students in the Doctor of Pharmacy program at the Gattton College of Pharmacy attend on a full-time degree-seeking status and as such pay the prevailing tuition and fees as established by the College for the current academic year. In rare situations in which a student may be enrolled as a part-time student (less than 12 credit hours) due to failure to meet normal academic progression standards or some unforeseen circumstance, tuition will be charged at pro-rated amount.

The Bursar's Office does not send bills to students for their tuition and fees. The university has taken this step in order to increase operating efficiencies by making full use of available technology. The best way for students to know their current financial obligation for the term is by viewing their account through GoldLink. Students who need a printed copy of their account statement may print a statement from GoldLink.

Students may not re-enroll, graduate, or receive a transcript of their records until all indebtedness to the university is settled.

Tuition Refund Policy

Refunds for maintenance fees, tuition, and debt service fees are determined as follows.

Change of a student's status which may permit a refund

- Change in schedule which results in reclassification from full-time to part-time status;
- Change in a part-time student's schedule which results in a class load of fewer hours.

Situations which may permit a refund

- Dropping a course or courses;
- Withdrawing from the institution;
- Cancellation of a class by the institution;
- Death of the student.

Refund Procedures

The refund amount for students not receiving Title IV aid and for those students who are not first-time students receiving Title IV aid is based upon the stated policy listed below.

- Refunds are defined as the portion of maintenance and/or tuition and university housing charges due as a rebate when a student withdraws or is expelled from the university. The amount of the refund is determined according to the schedule below.
- For first-, second-, and third-year students, 75 percent of maintenance and other required fees will be refunded for drops or withdrawals within 14 calendar days beginning with and including the first official day of classes or within a proportioned period for short-term courses. Twenty-five percent of maintenance and other required fees will be refunded following the 14th calendar day through the expiration of one-fourth of the time covered by the term. No refund will be made thereafter. These refund procedures are also applicable to dormitory rent. For fourth-year students, refunds will be based on the portion of pharmacy practice experiences completed during each semester.
- One hundred percent of fees will be refunded for classes canceled by the institution and for drops or withdrawals prior to the first day of classes for the regular academic terms. One hundred percent of fees will be refunded in case of student's death.

Return of Title IV Federal Student Aid

This requirement applies to the student **ONLY** if the student receives federal student aid, **AND** the student withdraws prior to completing 60 percent of the period for which the aid was provided.

- The federal law requires federal aid recipients to “earn” the aid they receive by staying enrolled in college. Students who withdraw prior to completing 60 percent of the semester for which they received federal student aid may be required to return some or all of the aid they were awarded.
- The law assumes that the student used the Title IV student aid to pay his/her institutional charges—tuition, fees, dorm room, and board; thus, if the student withdraws prior to completing 60 percent of the semester for which aid was awarded, a pro-rata amount of that aid must be returned to the federal government.
- The university will restore to the appropriate federal fund source a proportional share of the institutional charges that the student paid. In general, the effect of the “return of Title IV aid” by the institution will be to reduce the student’s outstanding loan balance. If the amount returned by the university is not enough to repay the entire “unearned” amount of student aid according to the length of enrollment, the student will be required to return portions of the federal student aid received to pay non-institutional charges.
- Amounts that must be returned to federal aid sources (whether by the university or by the student) will first be applied to federal loans. With respect to any amount the student owes after the university has returned its share, the student will be permitted to repay loans based on the original terms of the loan agreement. In the case of “unearned” portions of federal grants or scholarships, the student will be expected to pay 50 percent of the “unearned” portion immediately.
- Any refund due to the student from the University for payment to cover institutional charges will first be applied to obligations to return “unearned” aid. Thus, portions of institutional refunds may be applied on the student’s behalf to outstanding Stafford or Perkins loans or to the federal portions of grants or scholarships and not actually refunded to the student. (This policy is based on 34 CFR, Section 668.22 of Title IV of the Higher Education Act of 1965, as amended.)

ACADEMIC POLICIES

Office of Academic Affairs

The Office of Academic Affairs is responsible for all academic aspects of the PharmD program. This includes curriculum issues, notification of students achieving Dean's List, compilation, distribution and oversight of the class and examination schedule, and implementation of recommendations from the Academic Progression Committee. The office is located in Room 204, Building 7 on the J.H. Quillen Veterans Affairs Medical Center campus (VA). Students can also reach the office by calling 423-439-6334.

Academic Performance

Students are required to pass all courses applicable towards the PharmD degree with a minimum grade of "C" during each semester of enrollment. Students failing to meet this standard shall be subject to the action of the Academic Progression Committee (APC).

Registration for Classes

Students enrolled in the Gatton College of Pharmacy are registered for a pre-determined set of courses each semester during the didactic years (P1-P3) of the curriculum by the Admissions and Records Office. Elective options exist within the P2 and P3 year. Courses during the didactic portion of the curriculum are offered once a year, and latitude within the curriculum is not allowed (i.e., reduced class schedule, or withdrawing from a semester) except in cases of extenuating circumstances and with approval. Students have the opportunity to request specific practice experiences during the Advanced Pharmacy Practice Experience year (P4) according to location and scheduling preferences.

Grading System

The College of Pharmacy utilizes a standard letter grading system of A, B, C, D and F. Faculty for an individual course may elect to augment the grading system through use of the plus/minus system; however, the grades of C-, D+, and D- are not used. The method by which letter grades are assigned is determined by the course coordinator for each course and is included in the course syllabus. Once the method for assigning letter grades is in place for a course during a given semester, it cannot be made more stringent; however, the grading scale can be altered provided the scale is not made more difficult. Grades of D and F are not considered passing grades and require that a student receiving such grades remediate the course (see Academic Progression policy for definition of remediation).

The GPA is the weighted average of quality points earned relative to the number of credit hours attempted on a 4.000 scale. To calculate a GPA, the point value of the grade received in a course (see below) is multiplied by the number of credit hours the course is worth to determine the quality points for a course. The sum of quality points earned is then divided by the sum of credit hours attempted.

Letter grade point-values are as follows.

A	4.000	B+	3.300	C+	2.300	D	1.000
A-	3.700	B	3.000	C	2.000	F	0.000
B+	3.300	B-	2.700				

The GPA is calculated utilizing grades received in all courses attempted. Class rank based upon GPA is determined at the end of each semester, and is used for internal purposes only.

Other grades utilized by the College of Pharmacy are P (pass), I (incomplete) and W (withdraw). A grade of I is a temporary grade that may be assigned in cases in which a student, for acceptable reasons, is unable to complete all the requirements of a course. A student must make arrangements to complete the course within twelve months or the grade of I automatically becomes an F. A grade of W is assigned in cases in which a student has been granted permission by the Office of Academic Affairs to withdraw from a course according to the following. A student approved to withdraw from a course up to one-quarter of the course's duration will receive no penalty (i.e., no record of enrollment). Approved withdrawals occurring after one-quarter of the course's duration will result in a grade of W. Grades of P, I, and W carry no quality points and have no bearing on the GPA.

Grading symbols of + and * are also utilized. A "+" symbol indicates that a course continued beyond the current semester. An "*" symbol indicates that additional work was required by a student to obtain the specified course grade.

Grading policies apply to elective courses taken outside of the College of Pharmacy.

Grade Reports

Grades are available to students online via [*GoldLink*](#), the University's student information system. Academic departments retain grade documentation for a period of one year. Student concerns regarding academic records will only be addressed within one academic year from the date when the grades in question were posted.

Academic Honors

Dean's List

The Academic Affairs office will publish an honor roll each semester (Dean's List), consisting of students who demonstrated academic excellence by achieving a 3.5 GPA or better (with no grade below a B-) while enrolled full-time in the Gatton College of Pharmacy with at least twelve hours taken for a letter grade. For each semester in which this is accomplished, the student will receive a letter of recognition signed by the Dean. The student's name may also be published in the College newsletter or other publications.

Graduation Honors

The Gatton College of Pharmacy confers three academic distinctions at graduation which will appear on student diplomas:

Summa Cum Laude - students graduating with a pharmacy GPA of 3.900 to 4.000

Magna Cum Laude - students graduating with a pharmacy GPA of 3.750 to 3.899

Cum Laude - students graduating with a pharmacy GPA of 3.500 to 3.749

Grade Appeal Process

The grade appeal process affords students the opportunity to pursue a formal course of action to dispute a final course grade. This process does not apply to erroneous grades that result from mistakes in transcription, data entry, simple calculations or other unintentional causes. Changes of erroneous grades are handled quickly and informally, without the need for a grade appeal.

A student may appeal a final course grade if the student has evidence that the grade was assigned in a malicious, capricious, or arbitrary manner. The following steps provide a guideline for the appeals process. All persons concerned with this process should adhere to the time schedule outlined herein. Note that the timeframe may be adjusted due to extenuating circumstances, such as university closings or holidays, at the discretion of College of Pharmacy administration.

The grade appeal process is outlined in Gatton College of Pharmacy Student Handbook, available online at http://www.etsu.edu/pharmacy/current_students/handbook.php. Students wishing to appeal a grade must begin the process within 21 days of when the final course grade is reported to the registrar.

Academic Progression Committee

The Academic Progression Committee (APC), in consultation with the Office of Academic Affairs, is charged with monitoring students' performance during each semester and progress throughout the curriculum. The APC acts on behalf of the faculty as an advocate for student learning, faculty teaching and academic integrity. The committee serves to mediate and facilitate student remediation and retention issues, within the boundaries of academic standards. The emphasis is on learning, understanding and applying the material and skills that are taught throughout the curriculum. The APC becomes involved in academic issues when a student's academic performance falls below the level needed for the successful completion of one or more courses and makes decisions regarding student's retention and progression in the program. The APC Policy, including the composition and function of the APC, is detailed in the Gatton College of Pharmacy Student Handbook found on the web at http://www.etsu.edu/pharmacy/current_students/handbook.php.

Course Credit and Student Compensation Policy

Students on pharmacy practice experiences may **not** be paid for their activities by the site to which they are assigned. This is an accreditation standard and **cannot** be waived. Students may receive housing, meal and travel allowances from the experiential site for off-campus educational experiences.

Students who work on research projects with faculty or in summer internship experiences with off-campus pharmaceutical companies, regulatory agencies or professional societies/associations, may receive either Independent Study course credit or payment for their work, **but not both**. Further information about the credit and compensation policy can be found in the Gatton College of Pharmacy Student Handbook found at http://www.etsu.edu/pharmacy/current_students/handbook.php.

STUDENT SERVICES AND RESOURCES

Office of Student Affairs

The Office of Student Affairs coordinates a number of services for students, including academic advising, tutorial assistance, financial aid, and assistance with personal issues. The office also provides support for the College's student organizations and coordinates special events and programming for students. Information about pertinent services and programs is detailed below. Student Affairs is located in Room 212, Building 7 on the J.H. Quillen VA Medical Center and may be reached at 423-439-6338.

Faculty Mentors

Pharmacy students are assigned a faculty mentor upon matriculation. This individual serves as a student's primary academic advisor for the full four years unless a student requests a change in advisor. The role of the mentor is to serve as a resource. Mentors maintain an open door policy and exist to offer guidance in such matters as surviving in pharmacy school, geographic orientation, accessing resources to address personal issues and other issues as necessary. Ideally, the relationship will develop into one in which the student will seek out the advisor for advice and counsel. Students are encouraged to have regular contact with their mentor by e-mail, phone or in person.

Tutors

Students experiencing academic difficulty should first seek assistance from faculty; however, peer tutoring can be arranged to provide students with an additional source of assistance to facilitate learning and mastery of the academic material. Students who have excelled academically and who are identified by the course coordinators are encouraged to serve as peer tutors. These peer tutors work with their peers and underclassmen individually or in groups (when appropriate) on content and test preparation for a specified amount of time as agreed upon by the tutor and the student. Students seeking a tutor or students interested in becoming peer tutors should contact the Office of Student Affairs. If intensive help is required, students should contact the Office of Student Affairs which will assist in developing a support plan utilizing available university services.

Library Resources

The Charles C. Sherrod Library is the central university library in the heart of the main campus. This state-of-the-art facility is a great place to study and do research. Filled with natural light, it has comfortable seating, a 24-hour study room, lots of network connections, laptop computers for checkout to students, used paperbacks for leisure reading, and a friendly and helpful library staff to assist you. A medical library which serves the Division of Health Sciences is located in Building 4 on the VA campus. Students and faculty have full electronic access to journals and texts regardless of whether they are on-campus or off-site. The two libraries currently have over 10,800 full-text electronic titles of which nearly 4,000 are health-related. All electronic texts and journals are available from remote as well as on-campus sites.

The libraries share a single Online Public Access Catalog (OPAC) of library materials and databases. Holdings of the Johnson City Medical Center are included in the OPAC. There is

an agreement through the Sherrod Library to share all library holdings and database subscriptions with all university-affiliated personnel. Anyone with an ETSU e-mail address may access this information through the Medical Library World Wide Web portal. The portal offers faculty, staff, and students the opportunity to personalize the Library web page for their own most efficient use. Users may contribute to the content of the page, which enable them to share useful web sites and other resources with their colleagues.

A consortium, which includes the Medical Library, Mountain States Health Alliance in Johnson City and the Wellmont Health Systems in Bristol/Kingsport, enables faculty, staff, and students of all three institutions to share MD Consult, a full-text peer-reviewed online database of textbooks and journals. The Medical Library is also a member of a state-wide resource-sharing group called TennShare. Members of the TennShare may access the following publications

- Science Direct, one of the world's largest providers of scientific, technical, and medical literature;
- Interscience, the John Wiley & Sons electronic database access to full-text journals;
- StatRefl, full-text medical and drug information for healthcare professionals available online, on CD-ROM and PDA; and
- Tennessee Electronic Library (TEL) that gives member libraries access to 16 electronic databases.

As a member of the Consortium of Southern Biomedical Libraries (CONBLS) the Medical Library provides and receives interlibrary loan services from member institutions at no charge. The Medical Library is a member of the National Library of Medicine's Regional Library System. This affiliation gives the users (both on campus and in remote locations) access to the Loansome Doc system to enable them to order articles from MEDLINE. ETSU is also a member of the OCLC Online Computer Library Center, Inc., through which the university has access to more than 49 million cataloging records created by libraries around the world.

Study rooms in the Medical Library are available for use during regular library hours.

ID Card and College of Pharmacy Name Badge

All students admitted to the Gatton College of Pharmacy are expected to obtain an ETSU Student ID card and a Gatton College of Pharmacy ID name badge. Cards and badges are available during Orientation or any time after registering for classes. Lost, stolen, misplaced or abused cards may be replaced at the ID Services Office at a cost to the student of \$10. The ID Services Office is located on the 2nd level of the D.P. Culp Center (423-439-8316; office hours M-TH 8 a.m. - 7 p.m. and Friday 8 a.m. - 4:30 p.m.).

The ID card provides students with access to university facilities and services, and can be used to create a debit account called ID BUC\$ which may be used to pay for a variety of university services including many vending machines. The ID card is also used to access the College of Pharmacy building outside normal business hours. Students are expected to wear their College name badge at all times and are required to do so while at experiential education sites.

Student Engagement and Leadership Opportunities

Class Officers

Each class of students elects officers on an annual basis. In addition to providing general leadership for the class, the officers serve as the official representatives of the class to the administration of the College. Elections are conducted under the general guidance of the Office of Student Affairs.

College Committees

Student pharmacists are provided numerous opportunities to participate in the operation and leadership of the College through inclusion in the College's committee structure. Standing committees that include student membership are: the Admissions Committee, Assessment Committee, Curriculum Committee, Dean's Student Advisory Committee, Honor Code Committee, Library Committee, Student-Faculty Relations Committee, Student Organization Coordinating Committee and the Technology Committee. Complete descriptions of the above committees are found in the Gatton College of Pharmacy Student Handbook found on the web at www.etsu.edu/pharmacy.

Student Organizations

The Gatton College of Pharmacy encourages students to become involved in professional organizations and fraternities. The following represents the organizations and fraternities that exist within the College.

- American Association of Pharmaceutical Scientists (www.aaps.org)
- American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) (www.pharmacist.com)
- Student Society of Health-System Pharmacists (SSHP) (www.ashp.org)
- Christian Pharmacists Fellowship International (CPFI) (www.cpfi.org)
- National Community Pharmacists Association (NCPA) (www.ncpanet.org)
- Student National Pharmacists Association (SNPhA) (www.snpha.org)
- Kappa Epsilon (www.kappaepsilon.org)
- Kappa Psi Pharmaceutical Fraternity (www.kappapsi.org)
- Phi Delta Chi (www.phideltachi.org)
- The Rho Chi Society – academic honor society (www.rhochi.org)
- Phi Lambda Sigma – pharmacy leadership society (www.philambdasigma.org)

Descriptions of these organizations as well as information about establishing additional student organizations can be found in the Gatton College of Pharmacy Student Handbook found on the web at www.etsu.edu/pharmacy.

University Resources

ETSU Alumni Association

The ETSU Office of University Alumni is the campus contact for University graduates and former students, who upon graduation become members of the ETSU Alumni Association. Alumni may participate in a variety of activities, such as regional chapter activities, constituent societies, special alumni programs, alumni student recruitment, reunions, Homecoming and various events that support ETSU. Many alumni are chosen to participate in the popular "Alumni Return to the Classroom" program, which features alumni as

“Professors for a Day” sharing their professional experiences with students during Homecoming week. Alumni also participate in the “Buc Connection” career development network or support student recruitment through the Alumni Admissions Council. ETSU’s Alumni Association, in cooperation with the ETSU Foundation, also supports scholarships for academically outstanding students. The Alumni Association Office is located on campus in room 303 of Burgin E. Dossett Hall, phone (423) 439-4218 - <http://www.etsualumni.org/s/974/start-template.aspx>.

Athletic Events

East Tennessee State University is a member of the NCAA Division I Atlantic Sun Conference and fields teams in men’s baseball, basketball, cross country, golf, tennis, soccer, and track and field. The women participate in basketball, cross country, golf, soccer, softball, tennis, track and field and volleyball. Full-time students are admitted free with a valid student ID to all university sponsored athletic events. One additional companion ticket may be purchased at a discounted rate for all men's basketball games. For information on ticket prices for non-students, please contact the Athletic Ticket Office located on the west side of the Mini-Dome. Office hours are 8:30 a.m. to 4:30 p.m. Monday through Friday. The phone number is 439-5371. Complete information and schedules for the ETSU teams are available on the ETSU athletics web site at <http://www.etsubucs.com/>.

Banking

The Tennessee Teachers Credit Union, located in the University Bookstore, provides full-service banking for students. There is also an ATM machine in the Culp University Center.

Bookstore

The University Bookstore is located in the middle of the D.P. Culp Center. It is open fall and spring semester Monday – Thursday 7:45 a.m. to 6 p.m. and Friday 7:45 a.m. to 5 p.m. You may reach the store by phone at (423) 439-4436. Hours for the medical bookstore are 8:00 a.m. to 4:30 p.m. The phone for the medical bookstore is (423) 439-8016. A branch of the bookstore is also located on Walnut Street adjacent to campus.

Buctainment

Comprised of students, Buctainment plans major campus events such as concerts, movies, lectures, comedy shows, and Homecoming. Students can be involved with Buctainment as a member or programmer, or by attending a show as an audience member. It is a great opportunity to learn the technical, business, and marketing side of the entertainment industry. Buctainment is located in the Center for Community Engagement, Learning, and Leadership, D.P. Culp University Center, lower level, phone (423) 439-6828 or e-mail etsufun@etsu.edu.

Campus Recreation

Campus Recreation offers a wide variety of physical activities and recreational sports for the entire ETSU community - students, faculty, and staff. Programs are offered in five areas: fitness, intramurals, non-credit instruction, outdoor adventure, and sports clubs. The Center for Physical Activity (CPA) serves as the foundation for these programs. The CPA contains an indoor climbing wall, weight room, aerobic/martial arts studio, indoor swimming pool, three basketball courts, two racquetball courts, 1/8th mile track, locker rooms, and equipment

rental center. Campus Recreation also offers a personal training service that includes a weight room orientation, fitness testing, exercise prescription, and supervised workouts.

To obtain more information on Campus Recreation's program and services and hours of operation, call 439-7980, or visit <http://www.etsu.edu/students/campusrec/>.

Center for Community Engagement, Learning and Leadership

The Center for Community Engagement, Learning and Leadership serves as the resource center for all registered student organizations. It provides services and information, such as registration of organizations, assistance with event planning, maintenance of student activity calendar of events, and leadership training for student organizations. There are approximately 150 registered student organizations on the campus of ETSU, representing the diverse interests of our student population. Student organizations at ETSU are categorized into one of the following areas which best describes their general purpose: Academic, Community Service, Governance, Greek, Honors, Religious, Residence Life, University Programs, and Special Interest. Contact the Student Organization Resource Center at (423) 439-6633 or visit the web at <http://www.etsu.edu/sorc/> for more information.

Counseling Center

The University Counseling Center provides an array of counseling and mental health services to ETSU students, including personal counseling, career counseling and assessment, educational programming, psychiatric services, and consultative services. The staff is comprised of psychologists, an outreach coordinator, psychiatric residents, graduate assistants, and support staff. The Center is also responsible for the Campus Alcohol and Other Drug Program and the Campus Advocates Against Sexual Violence Program. We provide our career services through the Peer Career Center, located in the Advisement, Resources, and Career (ARC) Center. Counseling services are confidential and free to all ETSU students. For more information about our services, contact our main number (423) 439-4841 or contact the Peer Career Center (423) 439-8651 - <http://www.etsu.edu/students/counseling/>.

Computing Resources

ETSU provides a wide range of computer resources in support of instruction, research, and public service. The Office of Information Technology maintains four computer labs on the main campus that contain Dell PCs and Macintosh computers. The labs are located in the D.P. Culp Center, Sherrod Library, Sam Wilson Hall and Rogers-Stout Hall. A number of additional labs that are maintained by specific departments, including the Medical Library on the VA campus, are located throughout the campus. A listing of computer labs can be found at www.etsu.edu/oit. The labs provide students with access to a variety of popular and software including Microsoft Office, Microsoft Visual Studio.net, SAS, SPSS, and Minitab, Photoshop, PageMaker, QuarkXpress, and Macromedia Freehand. When not in use as classrooms, computer labs are available for walk-in use by any registered student. The OIT computer labs are staffed by Lab Monitors (student workers) at all times. While the lab monitors can provide assistance, they are not tutors in the use of the computers and software.

All students are provided with Internet access and an e-mail address that will be active for the duration of their stay at ETSU. Students are able to register for elective classes and pay fees online via *Goldlink* on ETSU's web page.

Computer Resources Code of Ethics

All users of any institutionally maintained electronic data, data files, software, and networks are expected to handle the resource in a responsible and ethical manner. A user's interest ceases when it invades the right of personal and/or institutional privacy; results in the destruction of personal and/or institutional property; demonstrates a potential for loss, embarrassment, litigation to the individual and/or institution; or causes a limited resource to be used in a wasteful or careless manner.

All information processed through Computer Services is considered sensitive and/or confidential. The responsibility for the release or discussion of data is assigned to the official custodian of the data file(s). Access to information is based on a legitimate "need to know" and directly related to assigned duties.

University electronically maintained data, data files, software, and networks will be used for authorized purposes only. Users are responsible for the security of the resources.

Any use of the resource deemed irresponsible or unethical (as defined in the Faculty Handbook section 1.10.1) will result in the immediate denial of use of the resource. The violation will be referred to the proper authorities for disciplinary and/or legal action including, but not limited to, restitution, restriction, reprimand, suspension, probation, expulsion, termination, and, if necessary, legal action. Appeals will be handled through due process channels (APA) already established for students and/or staff. Student violations will be referred to the Vice President for Student Affairs and/or Vice President for Health Affairs; faculty violations will be referred to the Vice President for Academic Affairs and/or the Vice President for Health Affairs; and staff violations will be referred to the Vice President for Administration and Development. The following examples attempt to convey the intent of irresponsible and/or unethical use: violation of Federal/State copyright laws; violation of the Family Educational Rights and Privacy Act of 1974; use of the resource for obscene material; deliberate wasteful use of the resource, unauthorized altering of hardware, software, or data; piracy of data or software belonging to another person; or careless use of the resource which may result in the release of restricted information.

Computer Network and Internet Access: Privileges & Responsibilities

East Tennessee State University (ETSU) operates a wide-area network that interconnects local area networks in academic and administrative offices, student computer labs, and in the future dormitory rooms. The university maintains connections into the Tennessee Education Cooperative Network (TECnet), the Internet and the World Wide Web. Thus, the university's network is a part of the global network that provides access to information and information processing technologies. By having access to the university's network and its resources, students, faculty, and staff can communicate and collaborate among themselves and their counterparts throughout the world. This privilege carries with it responsibilities with which all users must comply.

Everyone within the ETSU community who uses networked computing and communications facilities has the responsibility to use them in an ethical, professional and legal manner, and to abide by TECnet policies. Users should respect the privacy rights of others. ETSU's facilities and network access capabilities should never be used for purposes intended to incite crime. Communications which violate Tennessee, federal, or international law are not acceptable. For example, the use of ETSU's computer and network resources to threaten or harass others or the misrepresentation of one's identity in electronic communications for the purpose of illegal or unauthorized actions or activities will not be tolerated.

These statements concerning responsibility are not meant to be exhaustive. Any questionable use should be considered "not acceptable." Serious or repeated instances of abuse will be referred to the proper authority for disciplinary or legal action.

****WARNING**** Any person who knowingly brings on campus, has in their possession or distributes any virus without the authorization and written permission of the Division of Information Resources, will be considered to be in violation of the above and will be vigorously prosecuted. ****Campus**** is defined to include any property owned, leased, maintained or controlled by ETSU and includes any site or area where any system owned, leased, operated and/or maintained by ETSU is housed.

NOTICE TO USERS: It is the policy of East Tennessee State University to protect all institutional computing resources including, but not limited to, hardware and software, consisting of the actual equipment being supplied by the university as well as the programs and related materials used in conjunction therewith. In accordance with local, state, and federal law, indiscriminate examination of individual user's files is not permitted, nonetheless as a means of maintaining the integrity and security of those aforementioned resources.

East Tennessee State University retains the right to inspect individual accounts and files stored on any system owned, maintained and/or leased by said university. While no prior authorization by individual users is required to inspect those files and accounts, the user is, by virtue of accepting the account offered by ETSU and "logging" on to its computing equipment, granting to the university prior unrestricted permission, subject to university policy, to review, examine and/or otherwise view, by any method at the sole discretion of the university and without any additional advance notice to said user, any account and/or file stored on university computer resources.

Should such a review take place, the user will be given notice, as a courtesy only, of the results of said review within a reasonable time after the review is completed. While use of university computing resources for personal use is strictly forbidden, should the user have materials for which he/she has any reasonable expectation of privacy or which the user considers to be confidential for any reason, the user should retain those materials on a disk which can be secured as would any other personal items or materials which one consider private in nature.

For such a policy to work, it is essential that users observe responsible and ethical behavior in the use of the resources. In an effort to assist the user community in effective use of the limited computer resources, it seems reasonable to highlight some specific responsibilities and types of behavior that represent abuse of a user's privilege. The examples do not constitute a complete list but are intended to convey the intent of the code.

Users should not damage or attempt to damage computer equipment or to modify or attempt to modify equipment so that it does not function as originally intended. It is equally wrong to damage or modify or attempt to damage or modify the software components: operating systems, compilers, utility routines, etc.

Users should not use or attempt to use an account without authorization from the owner of that account. Users have the responsibility of protecting their accounts through the proper use of passwords, but the fact that an account is unprotected does not imply permission for an unauthorized person to use it. Further, accounts are to be used only for the purposes for which they have been established. [Only the individual owner of an account is authorized to use that account. Providing passwords or in any way permitting or making it possible for anyone other than the authorized owner of the account to use computer resources is not authorized and may be a violation of Tennessee Law. Under this condition both the owner and the unauthorized user may be subject to legal action if determined to be appropriate by ETSU legal counsel.] Additionally, it is wrong to use a university-sponsored account for funded research, personal business, or consulting activities. There are special accounts for such purposes.

Users should not use private files without authorization. Owners of such files should take precautions and use the security mechanisms available. However, the fact that a file is not protected does not make it right for anyone to access it, unless it is specifically designed as a public access file. It is equally wrong for anyone to change or delete a file that belongs to anyone else without authorization. Violation of property rights and copyrights covering data, computer programs, and documentation is also wrong. In the event of accidental access of private files, confidentiality of those files must be maintained.

Any deliberate wasteful use of resources is irresponsible; it encroaches on others' use of facilities and deprives them of resources. Printing of large unnecessary listings and the playing of games solely for entertainment are examples of such abuse. Users are expected to be aware of the resources they are using and to make reasonable efforts to use these resources efficiently.

All state and federal copyright laws will be abided by at all times. Users must not copy any part of a copyrighted program or its documentation which would be in violation of the law or the licensing agreement without written and specific permissions of the copyright holder. Serious or repeated instances of abuse of computer facilities and resources will be referred to the proper authorities for disciplinary or legal action including, but not limited to, restitution, restrictions, reprimand, suspension, probation, expulsion, or termination.

Disability Services

In compliance with federal regulations outlined in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, East Tennessee State University makes accommodations, course substitutions, and other academic adjustments when necessary to ensure equal access for students with disabilities. While all students with disabilities are protected from discrimination, some students may not be eligible for all of the services coordinated by Disability Services. Classroom and testing accommodations are made on an individual case-by-case basis. Students who wish may request an accommodation or academic adjustment because of a disability by completing the intake process with Disability Services self-identity.

During the intake process, Disability Services informs students of procedures surrounding the accommodation process, student responsibilities, as well as ETSU responsibilities. Eligibility for classroom and testing accommodations and other support services coordinated by Disability Services is based on the review of student's documentation of disability. Intake applications are not complete until Disability Services has received and reviewed current documentation of disability. Individualized education plans (IEP) cannot be used as documentation; however, information included in an IEP may be helpful when identifying the services a student may utilize while at ETSU.

In order to establish eligibility, the documentation provided should follow the established guidelines and include:

- Statement of diagnosis, date of most recent evaluation, and when available, date of original diagnosis by an impartial professional,
- Description of diagnostic criteria and/or diagnostic tests used,
- Description of the current impact of the disability in an academic environment,
- Credentials of the diagnosing professional,
- Documentation of attention deficit disorders should be no more than three years old, and
- Documentation of learning disabilities should be no more than five years old with results based on an adult measurement scale.

The diagnosing professional must have specific training and expertise in a field related to the type of disability being diagnosed. For example, a psychologist, psychiatrist, or educational examiner must make a learning disability diagnosis. Documentation not including the information outlined above or from a professional whose credentials are not generally indicative of expertise in the specific disability being diagnosed cannot be used to establish eligibility for services. ETSU does not provide any type of learning disabilities evaluations; however, Disability Services maintains a list of professionals in private practice that can evaluate learning disabilities.

Disability Services is located in the D.P. Culp Center, on J. L. Seehorn, Jr. Road (v/tdd) (423) 439-8346, (tdd) (423) 439-8370 - <http://www.etsu.edu/students/disable>.

Early Childhood Learning and Development

The Center for Early Childhood Learning and Development operates programs to serve the needs of young children and their families. Some of these programs offer child care services for families. The Infant-Toddler programs serve children ages three months to three years in a full-year, full-day program. The Early Learning Program, Child Study Center, serves children ages three through five years of age in a full-year, full-day program. Students who are interested in enrolling their children in either of the programs can obtain more information by calling (423) 439-7555. Enrollment is on a limited basis.

<http://www.etsu.edu/coe/child>.

A child care program, Little Buccaneers Student Child Care Center, specifically designed to meet the needs of ETSU students, opened in June 1997. ETSU students can enroll their children for blocks of time each semester that would accommodate their child care needs while attending classes and during study times. This program is supported by the Student Activities Allocation Committee and ETSU. Information for this program can be obtained by calling 439-7549.

Housing and Residence Life

Student pharmacists who want to live on campus will probably find the following residences more conducive for professional studies. Buccaneer Ridge has fully furnished efficiencies, 2 and 4 bedroom units. Detailed information on university housing, including costs, is available at <http://www.etsu.edu/students/housing>.

Buccaneer Ridge Apartments

Efficiency, two and four single occupancy bedroom apartment units are available. Each apartment contains a furnished living area, single bedrooms with double bed, closet, desk, and chest of drawers; kitchen facilities, including full-sized refrigerator, stove, microwave, and garbage disposal; washer and dryer; patio or balcony; and two bathrooms. Each bedroom is provided with an alarm system; telephone, cable TV and data jack; and individual locks. Residents enjoy a clubhouse with copier and fax availability; lounging pool; volleyball and basketball courts; exercise room; access gate; and individual leases with no connection fees.

Application Procedure

An application for housing may be obtained by contacting the Department of Housing and Residence Life. Early application, preferably before April 1, for fall semester and October 1 for spring semester is encouraged. Assignments for fall semester begin in April and mid-December for spring. A completed application and a \$100/\$150 reservation/damage deposit is required and accepted at any time. Detailed information about on-campus housing may be obtained by contacting the Department of Housing and Residence Life at (423) 439-4446 or on the web. Housing in the Johnson City area is plentiful. Information about off-campus housing is available at the Adult, Commuter, and Transfer Services web site.

<http://www.etsu.edu/students/acts/students/offcampushousing.aspx>

International Programs and Services

The International Programs and Services Office, located on the first floor of Yoakley Hall, serves the international community of visiting international students and scholars from more than 60 countries who attend or visit ETSU. Programming, advising, immigration paperwork, community outreach and the Friendship Family Program are among the many services offered by the office. (www.etsu.edu/honors/international)

Public Safety

The Public Safety Building is located at the entrance of the university on University Parkway and has personnel on duty 24 hours a day for assistance. The emergency telephone number is 911. The public safety staff is composed of 21 state-certified sworn police officers who are also trained firefighters. Public safety is a full-service police department encompassing traffic and parking enforcement, uniformed patrol, criminal investigations, and crime prevention education. Public Safety also provides these services: an escort service, engravers, booster cables, and battery booster packs. The non-emergency telephone number is (423) 439-4480. The number for the administrative offices is (423) 439-6900.

Student Government Association

The ETSU Student Government Association (SGA) strives to represent the opinions of the students on every aspect of campus academic and extracurricular life. Its members work closely with students, faculty, and administration to provide advice and information and a strong voice in the governance of the university. The SGA office is located near the Center for Community Engagement, Learning, and Leadership on the lower level of the D.P. Culp University Center, phone (423) 439-4253.

Student Health Services

The Student Health Clinic is part of the College of Nursing Faculty Practice Network. Clinic services are available to all enrolled students. The professional staff includes nurse practitioners, physicians, registered nurses, and a health educator. Services include: Management of acute, episodic illnesses and injuries, Referrals for assistance in managing chronic disorders, Immunizations, Women's health program and assistance with family planning, Men's health program, Allergy clinic for those receiving allergy injections, Patient education programs on a variety of topics. The Student Health Clinic is located in room 160 Nicks Hall. Please call (423) 439-4225 for further information.

The Dental Hygiene Clinic offers comprehensive preventive therapeutic procedures such as scaling and polishing teeth, pit and fissure sealants, nutritional counseling, periodontal therapy, patient education and exposing and developing radiographs. All treatment is performed, for a modest fee, by dental hygiene students under the supervision of the licensed dentist and dental hygiene faculty. Services are open to all students, university employees, and the general public. Appointments may be obtained by contacting the Dental Hygiene Clinic at 439-4514 in Lamb Hall, room 71.

The Speech-Language-Hearing Clinic, a component of the Department of Communicative Disorders, provides professional speech-language pathology and audiology services to students, faculty, and the general public. The service is provided by speech-language

pathology and audiology graduate students under the direct supervision of licensed Speech-Language Pathologists and Audiologists. The areas of service include speech and hearing evaluation, hearing aid evaluation, and treatment of speech and hearing disorders through therapy. Intervention may be available for deficits in articulation, phonology, language, voice, and fluency. The clinic is located in Room 204 of Lamb Hall. Please call (423) 439-4355 for appointments or information.

University Center, D.P. Culp

The D.P. Culp University Center is a modern architecturally designed student center conveniently located in the heart of campus. The specific purpose of the Culp Center is to serve students as an integral part of their educational life. The Culp University Center provides a wide variety of services, entertainment, and social activities for the campus community. The Culp Center houses five separate food service areas, the bookstore, the post office, a mini-market, a computer lab, a variety of administrative offices, meeting rooms and conference facilities, a ballroom, and an auditorium/theater. For information regarding the use and reservation of these facilities, contact the Culp Center office at (423) 439-4286.

COURSE DESCRIPTIONS

Professional Year 1

IPPE 3312 Longitudinal Introductory Pharmacy Practice Experience (0.5 cr. hrs)

Course is taken both semesters of P1 year.

Provides student pharmacists with an introduction to direct patient care through patient interaction in a controlled environment with oversight from a licensed professional. The primary objective of this experience is to assure that each student develops the professional judgment and communication skills necessary to become an active participant in providing contemporary patient-centered care and is competent in the basic technical aspects of the profession.

This experience, which occurs throughout the first professional (P1) didactic year, will build upon relevant coursework in the didactic curriculum including basic communication and technical skills. This experience will consist of both direct patient interaction and simulated experiences, focused on the community pharmacy setting. Students will engage a patient in their home setting (this will consist of individuals who live in assisted living or similar environments) and will be assigned in teams based on their designated mentor groups. Within these same groups, students will also engage in simulated exercises with the ultimate goal of preparing the student for a focused introductory community pharmacy experience following the completion of the didactic portion of the P1 year. The student will gain a greater appreciation for the profession of pharmacy as a direct patient care provider, and will develop professional attitudes, judgment and technical skills needed to function as such. Moreover, students will integrate and apply knowledge gained in the didactic curriculum into clinical practice.

IPPE 3322 Community Introductory Pharmacy Practice Experience (2 cr. hrs) (pending approval)

PMIN 3100 IDEALS I: Integrated Environment for Applied Learning and Skills (1 cr. hr)

Integrated skills lab series runs the entirety of the didactic curriculum. The skills lab will employ active learning strategies such as scientific experiments, wet labs, pharmaceutical compounding, patient case discussions, and presentations in order to integrate topics throughout the curriculum to augment foundational knowledge and build the skills necessary to be a pharmacist. This course provides an introduction to basic concepts and techniques necessary in the processing of a prescription or medication order, as well as practical experiences on the study of structures and functional aspects of cells, tissues and organs, essential to the understanding of body systems and life processes.

PMIN 3200 IDEALS II: Integrated Environment for Applied Learning and Skills (2 cr. hrs)

Integrated skills lab series runs the entirety of the didactic curriculum. The skills lab will employ active learning strategies such as scientific experiments, wet labs, pharmaceutical compounding, patient case discussions, and presentations in order to integrate topics throughout the curriculum to augment foundational knowledge and build the skills necessary to be a pharmacist. This course involves processing a prescription or medication order, the preparation and dispensing of a pharmaceutical solution, emulsion, suspension, semi-solid and solid drug delivery systems and the introduction and practice of the patient counseling skills necessary for proper use of the compounded product. During the compounding sessions, emphasis will be placed on the selection of proper excipients, based on physico-chemical principles, and the procedures and techniques used in extemporaneous compounding each type of preparation. Other sessions will emphasize patient communication and advising of selection of self-care items and products. *Prerequisites: PMSC 3122 and PMSC 3133; Co-requisite: PMSC 3233*

PMPR 3140 Contemporary Practice of Pharmacy I: Exploring Ourselves, Our Patients and Our Profession (2 cr. hrs)

The course is designed to both introduce and develop the student pharmacist's knowledge regarding multiple aspects of pharmacy practice. The longitudinal course sequence will provide the foundation and structure for the professional socialization of student pharmacists. To uphold the ideals of the profession, students must not only acquire the core clinical knowledge and skills, but also possess the attributes of a health care professional. The course will facilitate self-discovery of the attitudes, values, and habits that form the foundation of the profession of pharmacy. The student will reflect on personal characteristics, learning styles, and interactions with peers to develop the insight required to develop goals and aspirations for professional development. Thereafter, the student will focus on career development and the profession of pharmacy to begin to gain insight into potential learning/career pathways for practicing pharmacy at an advanced level, regardless of practice setting. The course will then focus on the patient and the role of the pharmacist in providing patient-centered care and comprehensive medication management. Throughout the course sequence, vertical and horizontal integration with other courses will occur to promote effective learning and retention.

PMPR 3182 Communication Skills for Health Professionals (2 cr. hrs)

All health professionals, regardless of discipline, are called on to be outstanding communicators with individual clients/patients, as well as with groups and communities. The faculty of the colleges of Medicine, Nursing, Pharmacy and Psychology believe communication is the foundation upon which professionalism develops. The skills that are necessary are well defined, and are not the same as social communication skills. These skills can be learned, and if learned, will lead to satisfaction and positive outcomes. When not learned, the opposite frequently occurs. The course is oriented to the development of competencies and this is how you will be evaluated. This course is a beginning. You will receive continuous follow up, reinforcement, and expansion of these skills throughout your training. The participating faculty members are dedicated to helping you to become the best health care communicator that you can possibly be.

PMPR 3240 Contemporary Practice of Pharmacy II: Exploring Ourselves, Our Patients and Our Profession (2 cr. hrs)

The course is designed to both introduce and develop the student pharmacist's knowledge regarding multiple aspects of pharmacy practice. The longitudinal course sequence will provide the foundation and structure for the professional socialization of student pharmacists. To uphold the ideals of the profession, students must not only acquire the core clinical knowledge and skills, but also possess the attributes of a health care professional. The course will facilitate self-discovery of the attitudes, values, and habits that form the foundation of the profession of pharmacy. The student will reflect on personal characteristics, learning styles, and interactions with peers to develop the insight required to develop goals and aspirations for professional development. Thereafter, the student will focus on career development and the profession of pharmacy to begin to gain insight into potential learning/career pathways for practicing pharmacy at an advanced level, regardless of practice setting. The course will then focus on the patient and the role of the pharmacist in providing patient-centered care and comprehensive medication management. Throughout the course sequence, vertical and horizontal integration with other courses will occur to promote effective learning and retention.

PMPR 3270 Non-Prescription Therapies and Self Care I (2 cr. hrs)

This course will serve as an introduction to nonprescription medications (including natural medicines) and products used in the treatment of acute illnesses for which pharmacists are consulted. Students will develop skills necessary to: evaluate nonprescription medication therapy; assess patients in the community setting; and make appropriate product selections for all patients, including special patient populations with unique characteristics (pediatrics, geriatrics, pregnancy, and lactation). This course will also introduce students to the concepts and skills needed to triage patients for self-care and to provide pertinent patient counseling specific to common nonprescription medications and products. The topics covered have been selected based on a number of factors: utilization data, sales trends, frequency of information requests, and important safety concerns.

PMSC 3114 Pharmaceutical Biochemistry (4 cr. hrs)

Biochemical understanding of proteins, sugars, lipids, and nucleic acids is fueling the explosion of knowledge in medicine and pharmacy. This course will demonstrate how basic principles of biochemical structure govern normal metabolic pathways in healthy humans and how they malfunction in disease.

PMSC 3116 Human Physiology (5 cr. hrs)

This course should provide students with an understanding of the basic principles and concepts of anatomy and cellular and organ system physiology, leading to an appreciation of the sites and mechanisms of action of drugs in producing both therapeutic and adverse effects. This course should also provide an excellent foundation for understanding the physiological basis of pharmaceutical and patient-centered care.

PMSC 3122 Pharmacy Calculations (2 cr. hrs)

Course content includes an introduction to the history of pharmacy, prescription terminology, systems of measurement and pharmacy calculations. Students will apply appropriate

mathematical concepts found within the practice of pharmacy, including prescription compounding and patient specific determinations. Examples and problems will be included that more often encountered in rural practice. Emphasis will be placed on improving and applying problem-solving skills for the needs of an individual patient within the practice of pharmacy.

PMSC 3133 Pharmaceutics of Drug Delivery Systems (2 cr. hrs)

This course involves the study of the physical and physicochemical behavior of drug molecules, dosage forms, and drug delivery systems and their composition. Instruction will include the formulation and development of a variety of immediate release, modified release and novel drug delivery systems, the study of physicochemical principles and pharmaceutical drug delivery systems and their composition both outside and inside the body, and the implications and relationship with patient-centered care. The principals of this course include the preparation, physicochemical evaluation and stability of drug contained in pharmaceutical drug delivery systems. *Co-requisites: PMIN 3100 and PMSC 3122*

PMSC 3202 Immunology (2 cr. hrs)

A basic immunology course designed to introduce Pharmacy students to major concepts of the innate and the acquired immune system. *Prerequisites: PMSC 3114 and PMSC 3116*

PMSC 3204 Pathophysiology: Concepts in Altered Health States (4 cr. hrs)

This course provides students with an understanding of the basic principles and concepts of cellular, organ system and generalized pathophysiology, leading to an appreciation of disease and pharmacotherapy. The course also provides an excellent foundation for the understanding of the basis of patient-centered care. *Prerequisite: PMSC 3116*

PMSC 3223 Foundational Principles: Pharmacology & Autonomics (2 cr. hrs)

This course is the introduction to the science of pharmacology – the study of the underlying basis of drug actions on living systems. The course introduces fundamentals of pharmacodynamics (drug-receptor interactions), receptor agonism and antagonism, synergy, dose-response relationships, mechanisms of action, absorption, distribution, metabolism and elimination, and an introduction to the fundamentals of toxicology. Additionally, the course will present classical autonomic pharmacology with a focus on the chemical classification, mechanisms of action and pharmacological effects of agonist and antagonists of drug affecting muscarinic, peripheral nicotinic, and alpha and beta-adrenergic receptors. *Prerequisites: PMSC 3114 and PMSC 3116*

PMSC 3224 Foundational Principles: Medicinal Chemistry (2 cr. hrs)

This course will provide students with an understanding of the basic principles and concepts of medicinal chemistry, including an overview of the relationship of drug structure to pharmacological activity and an understanding of the processes involved in the design and development of modern pharmaceuticals. In addition, this course will help the student identify the physiochemical properties related to drug structures that affect drug solubility, pharmacokinetics, pharmacodynamics, pharmacological action, and stability. *Prerequisites: PMSC 3114 and PMSC 3116*

PMSC 3233 Biopharmaceutics and Biotechnology (3 cr. hrs) Biopharmaceutics focuses on the biological factors that affect drug product disposition and efficacy. Drug absorption processes, bioavailability and bioequivalence determination and interpretation will be included as an introduction to pharmacokinetic principles. This course will also provide an introduction to pharmaceutical products of biotechnology and the science that governs the development and implementation of these drugs. *Prerequisites: PMSC 3114, PMSC 3116 and PMSC 3133*

Professional Year 2

IPPE 4322 Introductory Pharmacy Practice Experience- Community Focus (2 cr. hrs)

In the Introductory Pharmacy Practice Experience, students learn under the close supervision of a pharmacist. Students spend 80 hours during the summer after the second professional year in a Community Practice Setting. The preceptor will demonstrate to students how to apply the knowledge they learn in the classroom to daily practice. In IPPE-P2, students become more involved in pharmaceutical care and in the operation of the pharmacy. In the IPPE-P2, students become more involved in pharmaceutical care and in the operation of the pharmacy.

IPPE 4332 Introductory Pharmacy Practice Experience-P2 Institutional Focus (2 cr. hrs)

In the Introductory Pharmacy Practice Experience, students learn under the close supervision of a pharmacist. The preceptor will demonstrate to students how to apply the knowledge they learn in the classroom to daily practice. Students spend 80 hours during the summer after the second professional year in an Institutional Practice Setting. In IPPE-P2, students become more involved in pharmaceutical care and in the operation of the pharmacy.

PMIN 4100 IDEALS III: Integrated Environment for Applied Learning and Skills (1 cr. hr)

The IDEALS series runs the entirety of the didactic curriculum. IDEALS will employ active learning strategies such as scientific experiments, wet labs, pharmaceutical compounding, clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions, and presentations in order to integrate topics throughout the curriculum in to augment foundational knowledge and build the skills necessary to be a pharmacist. As the series progresses, the focus of labs will shift from augmenting foundational knowledge to developing pharmacist-specific professional skills. Labs with a unique rural health focus will be explicitly delineated in the course schedule. *Prerequisite: Students must be enrolled in the second professional year of the curriculum and be in good academic standing.*

PMIN 4110 Integrated Series: Infectious Diseases (3.5 cr. hrs)

This course will teach students how to incorporate the basic science principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. . The class will consist of 6 hours of learning experiences per week. *Prerequisite: Students must be enrolled in the second professional year.*

PMIN 4120 Integrated Series: Pulmonary (2.5 cr. hrs)

This course will teach students how to incorporate the principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 6 hours of learning experiences per week. *Prerequisite: Students must be enrolled in the second professional year and have successfully completed previous courses in the Integrated Series.*

PMIN 4200 IDEALS IV: Integrated Environment for Applied Learning and Skills (2 cr. hrs)

The IDEALS series runs the entirety of the didactic curriculum. IDEALS will employ active learning strategies such as scientific experiments, wet labs, pharmaceutical compounding, clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions, and presentations in order to integrate topics throughout the curriculum in to augment foundational knowledge and build the skills necessary to be a pharmacist. As the series progresses, the focus of labs will shift from augmenting foundational knowledge to developing pharmacist-specific professional skills. Labs with a unique rural health focus will be explicitly delineated in the course schedule. *Prerequisite: Students must be enrolled in the second professional year of the curriculum and be in good academic standing.*

PMIN 4210 Integrated Series: Cardiovascular (5 cr. hrs)

This course will teach students how to incorporate the basic science principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 7 hours of learning experiences per week. *Prerequisite: Students must be enrolled in the second professional year and have successfully completed previous courses in the Integrated Series or by approval of course coordinator.*

PMIN 4220 Integrated Series: Renal (2 cr. hrs)

This course will teach students how to incorporate the basic science principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 7 hours of learning experiences per week. *Prerequisite: Students must be enrolled in the second professional year and have successfully completed previous courses in the Integrated Series.*

PMPR 4140 Evidence-Based Practice of Pharmacy I (3 cr. hrs)

The course introduces students to the principles of evidence-based practice, including research design, data analysis, and biostatistics in the interpretation and critical analysis of biomedical literature with the purpose of developing evidence-based care recommendations for patients or patient populations.

PMPR 4170 Non-Prescription Therapies and Self-Care II (3 cr. hrs)

This course will serve as an introduction to nonprescription medications (including natural medicines) and products used in the treatment of acute and chronic illnesses for which

pharmacists are consulted. Students will develop skills necessary to: evaluate nonprescription medication therapy; assess patients in the community setting; and make appropriate product selections for all patients, including special patient populations with unique characteristics (pediatrics, geriatrics, pregnancy, and lactation). This course will also introduce students to the concepts and skills needed to triage patients for self-care and to provide pertinent patient counseling specific to common nonprescription medications and products. The topics covered have been selected based on a number of factors: utilization data, sales trends, frequency of information requests, and important safety concerns. *Prerequisite: Must be in the second professional year.*

PMPR 4233 Principles of Clinical Pharmacokinetics (2 cr. hrs)

This course is designed to build on the students' understanding of pharmacokinetic concepts and provide a greater appreciation and understanding of the application of pharmacokinetic principles in patient care situations. The course will consist of didactic instruction and case studies. *Prerequisite: PMSC 4134.*

PMPR 4240 Evidence-Based Practice of Pharmacy II (3 cr. hrs)

The course expands on the literature evaluation and evidence-based medicine concepts presented in the Evidence-Based Practice I course and serves as an introduction to the principles of drug information. Students will learn: processes for answering drug information questions; how to differentiate between and within the different types of literature; how to search for information using a variety of resources; how to develop evidence-based care recommendations; how to communicate responses to drug information questions; and how to effectively provide written drug information. The course series will provide students with the skills to effectively analyze and interpret medical literature and will introduce students to the basic concepts of evidence-based medicine, pharmacoepidemiology, and pharmacoconomics. This course has a heavy active learning component with numerous labs and activities. *Prerequisite: Successful completion of PMPR 4140.*

PMPR 4283 Pharmacy Law and Ethics (3 cr. hrs)

Pharmacy Law and Ethics is designed to introduce and develop knowledge regarding legal and ethical aspects of pharmacy practice. Topics to be covered include, but are not limited to: federal and state (Tennessee) statutes, rules, and regulations pertaining to the practice of pharmacy; general principles of law including criminal, civil, and administrative procedures; professionalism; professional and patient advocacy; and ethical principles of pharmacy practice. *Prerequisites: Students must be enrolled in the second professional*

PMSC 4134 Pharmacokinetics and Pharmacogenomics (4 cr. hrs)

This course provides students with an understanding of the concepts of absorption, distribution, metabolism and elimination of drugs. Students learn how to apply mathematical principles to the study of pharmacokinetics. Also, students understand the physiological factors may change pharmacokinetic parameter. In addition, the pharmacokinetic and pharmacodynamic factors involved in drug response variability are discussed. *Prerequisites: PMSC 3133 and PMSC 3233.*

Professional Year 3

IPPE 5312 Introductory Pharmacy Practice Experience-P3 (1.5 cr. hrs)

Students will spend a minimum of 60 hours during the third professional year involved in patient-centered care in the clinical institutional setting, drug information simulation, and in various community settings. The IPPE-P3 is composed of three required components: clinical, geriatric, and service learning. Professional development may also be added as a fourth component at the discretion of the student. *Prerequisites: Must be enrolled in third professional year and successfully completed IPPE-P1 and IPPE-P2*

PMIN 5100 IDEALS V: Integrated Environment for Applied Learning and Skills (2 cr. hrs)

The IDEALS series runs the entirety of the didactic curriculum. IDEALS will employ active learning strategies such as scientific experiments, wet labs, pharmaceutical compounding, clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions, and presentations in order to integrate topics throughout the curriculum in to augment foundational knowledge and build the skills necessary to be a pharmacist. As the series progresses, the focus of labs will shift from augmenting foundational knowledge to developing pharmacist-specific professional skills. Labs with a unique rural health focus will be explicitly delineated in the course schedule. *Prerequisite: Must be enrolled in the third professional year or obtain approval from the course coordinator.*

PMIN 5110 Integrated Series: Neurologic and Psychiatry Pharmacy (6 cr. hrs)

An integrated study of anatomy, pathophysiology, physical and mental assessment, pharmacology, therapeutics, clinical pharmacokinetics, patient care, alternative/complementary therapies, pharmacoeconomic issues, medication use in special populations, and review of pertinent drug literature as related to common diseases involving the neurological and psychiatric systems. The class will consist of 13-15 hours of learning experiences per week. *Prerequisite: Must be enrolled in the third professional year and successfully completed previous courses in the Integrated Series.*

PMIN 5120 Integrated Series: Endocrine, Eye and Derm (3 cr. hrs)

This course will teach students how to incorporate the basic science principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of approximately 14 hours of learning experiences per week. *Prerequisite: Must be enrolled in the third professional year and successfully completed previous courses in the Integrated Series or by approval of the course coordinator.*

PMIN 5130 Integrated Series: Women's and Men's Health (2 cr. hrs)

This course will teach students how to incorporate the principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 14 hours of learning experiences per week and 2 additional hours of Flex Time to allow flexible scheduling of

class and examination time. *Prerequisite: Must be enrolled in the third professional year and successfully completed previous courses in the Integrated Series or by approval of the course coordinator.*

PMIN 5140 Integrated Series: Gastroenterology and Nutrition (2 cr. hrs)

This course will teach students how to incorporate the principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 14 hours of learning experiences per week and 2 additional hours of Flex Time to allow flexible scheduling of class and examination time. *Prerequisite: Must be enrolled in the third professional year and successfully completed previous courses in the Integrated Series or by approval of the course coordinator.*

PMIN 5200 IDEALS VI: Integrated Environment for Applied Learning and Skills (2 cr. hrs)

The IDEALS series runs the entirety of the didactic curriculum. IDEALS will employ active learning strategies such as scientific experiments, wet labs, pharmaceutical compounding, clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions, and presentations in order to integrate topics throughout the curriculum in to augment foundational knowledge and build the skills necessary to be a pharmacist. As the series progresses, the focus of labs will shift from augmenting foundational knowledge to developing pharmacist-specific professional skills. Labs with a unique rural health focus will be explicitly delineated in the course schedule. *Prerequisite: Must be enrolled in the third professional year.*

PMIN 5210 Integrated Series: Immunology/Hematology/Oncology Pharmacy (4 cr. hrs)

This course will teach students how to incorporate the basic science principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 10 hours of large group didactic time per week. *Prerequisites: Must be enrolled in the third professional year and have successfully completed previous courses in the Integrated Series.*

PMIN 5220 Integrated Series: Critical Care and Toxicology (2 cr. hrs)

This course will teach students how to incorporate the principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy, to address those problems. The class will consist of 10-12 hours of learning experiences per week. *Prerequisites: Must be enrolled in the third professional year and have successfully completed previous courses in the Integrated Series*

PMIN 5230 Integrated Series: Pediatrics and Geriatrics (2 cr. hrs)

This course will teach students how to incorporate the principles of pharmacology and medicinal chemistry while identifying and assessing the medical problems of their patients and to then recommend appropriate therapy, concentrating on medication therapy or

pharmacotherapy, to address those problems. Students can expect that many of the medications that will be applied during the Pediatrics-Geriatrics course would have been previously taught but will be applied to these special populations. The Pediatrics-Geriatrics course will run concurrent with the Capstone course. *Prerequisites: Must be enrolled in the third professional year and have successfully completed previous courses in the Integrated Series.*

PMIN 5240 Integrated Series: Advanced Clinical Pharmacotherapy (2 cr. hrs)

This course will teach students how to compile the skills and knowledge from the previous semesters into a cohesive approach to providing patient care. This course will not introduce a significant amount of new material but will reinforce common disease states in a fashion that mimics real-world patient care. Students will be challenged with complex scenarios and will be required to not only come to rational and credible conclusions but to also defend those conclusions using the most contemporary medical evidence available. The class will be heavily weighted towards team/problem based learning. *Prerequisites: Must be enrolled in the third professional year and have successfully completed previous courses in the Integrated Series.*

PMPR 5140 Advanced Contemporary Practice of Pharmacy I (2 cr. hrs)

This course is designed to introduce and develop the student pharmacist's knowledge regarding multiple aspects of advanced pharmacy practice. The course will introduce and develop areas of pharmacy practice that include institutional pharmacy, long-term care pharmacy, the role of the pharmacist in public health, as well as other practice areas. The student will develop practice skills that include aspects of management; including practice (human resources, personnel management and conflict resolution), health-systems (various aspects of inpatient care), career (marketing, interviewing, leadership, etc) and professional (career development, advocacy, job retention and satisfaction) management. Students will be expected to describe as well as apply these principles. This will be accomplished through written and team-based assignments, in-class quizzes over reading assignments and reflection. The development of a course project, which will run longitudinally over the course of the fall and spring semesters, is the overriding objective. Students will be provided with the foundational tools to imagine, design and present their ideas. These projects will be begun in the fall semester and continue into the spring. The projects will then be presented to a local panel of experts as though the idea was being marketed. Throughout the course sequence, vertical and horizontal integration with other courses will occur to promote effective learning and retention. *Prerequisite: Must be enrolled in the third professional year.*

PMPR 5240 Advanced Contemporary Practice of Pharmacy II (2 cr. H rs)

This course is designed to provide a broad overview of a practicing pharmacist's work environment, decision making, workplace resources, management skills, and marketing considerations. Emphasis will be placed on the skills and resources necessary to be a successful practicing pharmacist, pharmacy manager, or cognitive services provider. Basic marketing, management, accounting and personnel issues will be covered. The longitudinal ACPOP course sequence provides the foundation and structure to accelerate the student pharmacist's integration into a practice setting. This course is designed to introduce and develop the student pharmacist's knowledge of multiple aspects of community and hospital

based pharmacy practice. ACPOP II focuses on the practice environment, foundational concepts and a competitive classroom example of health care implementation. Throughout the course sequence, vertical and horizontal integration with other courses will occur to promote effective learning and retention. *Prerequisites: Must be enrolled in the third professional.*

PMPR 5361 Clinical Seminar I (year-long course)

This course is the first in the Clinical Seminar series, and provides the foundation and formal instruction for the series. In this class, students will receive instruction on the preparation of formal clinically-oriented seminars, observe and evaluate seminars presented by fourth year pharmacy students in the Fall session of the class, and observe and evaluate previously recorded faculty seminars. These activities are designed to prepare students to synthesize and present a 45 minute seminar during the P4 year. *Prerequisites: Must be enrolled in the third professional year*

Professional Year 4

PMPR 5461 Clinical Seminar II (year-long course)

This course is the second in the Clinical Seminar series, and provides the final opportunity for students to construct and present a clinical seminar. In this class, students will be mentored by faculty on the development and presentation of a 35-45 minute seminar on a topic of their choosing (may select from a list provided by faculty, or may suggest another topic for approval by the course coordinators). These activities are designed to allow students to practice their presentation skills in front of their peers, and provide experience and feedback on the preparation of a formal, clinically relevant, evidence-based seminar. *Prerequisite: Must be enrolled in the fourth professional year; successful completion of PMPR 5361.*

APPE 6001 Institutional Practice I

This pharmacy practice experience in an inpatient hospital setting exposes the student to the wide variety of daily duties often required of the pharmacist while in an institutional pharmacy. Some of the areas that will be explored include the medication use process, drug distribution, sterile products preparation, automation, operations management, resource management and institutional legal and regulatory standards. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 6002 Community Practice I

This pharmacy practice experience in a community pharmacy setting is intended to expose the student to a variety of patient-centered services. These services include but are not limited to medication dispensing, patient counseling, drug therapy monitoring, medication therapy management, and drug information services. Resource management and operations management will also be incorporated into the experience. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 6003 Acute Care Practice I

This pharmacy practice experience focuses on providing patient-centered care to hospitalized patients. The student will apply their therapeutic knowledge to assess and develop therapeutic

plans for patients in collaboration with other healthcare professionals, especially physicians. The student will also be involved in taking medication histories, monitoring patient progress and providing drug information to health care professionals and patients. *Prerequisites and/or Co-requisites: Must be enrolled in the fourth professional year.*

APPE 6004 Ambulatory Care/Primary Care Practice I

This pharmacy practice experience is focused on providing patient-centered care of patients who are receiving care in a clinic, physician office or other ambulatory / primary care setting. Students will gain experience in communication and assessment skills, physical assessment, chronic disease management and preventative care, and therapy modifications for special patient groups. Other skills developed include drug literature analysis, patient education and counseling, interprofessional communication, and designing and implementing safe, efficacious and cost effective drug therapy to the patient. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 6503 Acute Care Practice II

This pharmacy practice experience focuses on providing patient-centered care to hospitalized patients. The student will apply their therapeutic knowledge to assess and develop therapeutic plans for patients in collaboration with other healthcare professionals, especially physicians. The student will also be involved in taking medication histories, monitoring patient progress and providing drug information to health care professionals and patients. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 6504 Ambulatory Care/Primary Care Practice II

This pharmacy practice experience is focused on providing patient-centered care of patients who are receiving care in a clinic, physician office or other ambulatory / primary care setting. Students will gain experience in communication and assessment skills, physical assessment, chronic disease management and preventative care, and therapy modifications for special patient groups. Other skills developed include drug literature analysis, patient education and counseling, interprofessional communication, and designing and implementing safe, efficacious and cost effective drug therapy to the patient. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7001 Institutional Practice II

This pharmacy practice experience in an inpatient hospital setting exposes the student to the wide variety of daily duties often required of the pharmacist while in an institutional pharmacy. Some of the areas that will be explored include the medication use process, drug distribution, sterile products preparation, automation, operations management, resource management and institutional legal and regulatory standards. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7002 Community Practice II

This pharmacy practice experience in a community pharmacy setting is intended to expose the student to a variety of patient-centered services. These services include but are not limited to medication dispensing, patient counseling, drug therapy monitoring, medication therapy management, and drug information services. Resource management and operations

management will also be incorporated into the experience. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7005 Diabetes Patient-Centered Care

The focus of this elective APPE will be comprehensive patient centered care for the ambulatory patient with diabetes. These patients may be seen occasionally in the institutional setting. The student will become well versed in medication counseling and calculations, nutrition counseling, and physical activity counseling. The student will also learn to become a patient advocate for those affected by diabetes. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7006 Retail Management Administrative

This elective pharmacy practice experience in a community chain pharmacy administrative setting is intended to expose the student to the role and responsibilities of a pharmacy district supervisor and administrator. The student will be exposed to the business aspects of pharmacy operations, including the assessment and decision making processes involved in financial and human resource management within a corporate. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7007 Institutional Management Administrative

This elective pharmacy practice experience in a hospital pharmacy administrative setting is intended to expose the student to the role and responsibilities of the Director of Pharmacy and other components of institutional administration. The student will be exposed to the management of pharmacy operations. This will include financial and human resource management within an institutional environment. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7008 Institutional Formulary Management

This elective pharmacy practice experience will focus on population-based care and the management of drug formularies. Students will be exposed to techniques to address prescribing habits within an institution, pharmacoeconomic analyses in the managed care environment, Pharmacy Benefit Managers, evidenced-based medicine, formulary management, and patient outcomes. *Prerequisites: Must be enrolled in fourth professional year.*

APPE 7009 Community Based Infusion Services

This elective pharmacy practice experience will focus on providing infusion services from a community-based pharmacy operation. The student will gain experience in parenteral and enteral nutrition and formulations. Research, preparation and distribution of intravenous products and supplies to home bound or specialty institutionalized patients will be a routine part of the student's experience. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7011 Nuclear Pharmacy and Pharmaceuticals

This elective pharmacy practice experience introduces the student to the practice of nuclear pharmacy. The nuclear pharmacy experience will concentrate on pharmaceutical care and radiopharmaceutical compounding, quality assurance, health physics and regulatory

compliance. The student will have the opportunity to communicate with the nuclear medicine personnel and participate in the clinical use of diagnostic and therapeutic radiopharmaceuticals. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7012 Pharmacist State Association

This elective pharmacy practice experience is designed to broaden the student's knowledge and understanding of pharmacy association management. It is structured to provide experiences in national and state practice issues, education, member services, student development, policy and advocacy, and public relations. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7013 Institutional Practice III

This pharmacy practice experience in an inpatient hospital setting exposes the student to the wide variety of daily duties often required of the pharmacist while in an institutional pharmacy. Some of the areas that will be explored include the medication use process, drug distribution, sterile products preparation, automation, operations management, resource management and institutional legal and regulatory standards. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7014 Community Practice III

This pharmacy practice experience in a community pharmacy setting is intended to expose the student to a variety of patient-centered services. These services include but are not limited to medication dispensing, patient counseling, drug therapy monitoring, medication therapy management, and drug information services. Resource management and operations management will also be incorporated into the experience. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7017 Compounding Specialty Pharmacy

This elective pharmacy practice experience in a community pharmacy setting will provide the student with the experience of compounding specialty medications that are not commercially available in necessary dosage forms for unique patient populations. Regulations, special equipment and space considerations will be addressed. Marketing of this specialized service will also be part of the learning experience. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7018 Geriatric Care

This elective pharmacy practice experience is designed to provide the student with an in-depth experience in the provision of pharmaceutical care to older patients and those requiring long term care services. Training involves providing for the special needs of elderly patients through knowledge of geriatric disease states, aging organ function and related drug response alterations, including pharmacokinetic and pharmacodynamic alterations. Other issues such as health maintenance, compliance, patient education, and social issues are also emphasized. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7019 Critical Care

This pharmacy practice experience focuses on providing patient-centered care to hospitalized patients. The student will apply their therapeutic knowledge to assess and develop therapeutic plans for patients in collaboration with other healthcare professionals, especially physicians. The student will also be involved in taking medication histories, monitoring patient progress and providing drug information to health care professionals and patients. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7020 Advanced Community Pharmacy Services

This elective pharmacy practice experience in a community pharmacy setting is intended to expose the student to a variety of patient-centered value added services. These practices provide services that are not limited to patient counseling, drug therapy monitoring, and drug information services. Other activities such as Medication Therapy Management consultations, specialty compounding and immunizations are routine value added services for these practices. Resource management and operations management will also be part of the educational endeavors the student will experience. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7021 Alternative and Complementary Medication and Therapies Research

This elective pharmacy practice experience will provide the student with the opportunity to improve and polish drug information investigative and writing skills. Excellent writing and communication skills are required for this experience. Alternative medications and complementary medications are fully explored. Activities for the student include active participation in such things as yoga and reflexology. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7022 Psychiatry

This elective pharmacy practice experience will provide in-depth exposure to the pharmacotherapy of mental health. The student will gain experience in applying therapeutic knowledge to develop an assessment and plans for patient care while collaborating with other healthcare professionals to monitor drug therapy of patients with psychiatric diseases or drug abuse problems. The student will gain experience in treating diverse psychiatric and behavioral problems, including schizophrenia, depression, mania, bipolar disease, phobic states, substance abuse, personality disorders and related behavioral problems. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7023 Nutritional Support

This experience is designed to provide the student with the opportunity to gain knowledge, skills, and practical experience in basic nutritional principles, nutritional assessment, and management of the patient requiring enteral and/or total parenteral nutrition. Students will participate in managing patients through assessing and diagnosing nutritional status, and designing and monitoring nutritional and electrolyte treatment plans. Experience is gained working with a broad spectrum of patients, including trauma and surgical patients, patients having endocrine abnormalities, and renal- and hepatic-compromised patients. The student will also learn about various infusion techniques and systems for administering nutritional agents. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7024 Pediatrics

This pharmacy practice experience focuses on providing patient-centered care to pediatric patients. The student will apply their therapeutic knowledge to assess and develop therapeutic plans for children in collaboration with other healthcare professionals, especially physicians and nurses. The student will also be involved in taking medication histories, monitoring patient progress and providing drug information to health care professionals, patients and their families. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7025 Pharmacokinetics

This elective pharmacy practice experience is designed to give the student hands-on experience in clinical pharmacokinetics. The student will assess the utility of population averages in predicting drug concentration of dosage and learn to base therapeutic recommendations on measured drug concentrations. This experience is directed toward monitoring drug therapy based on patient response rather than the sheer manipulation of numbers. Expertise in calculations is expected from didactic course work. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7026 General Medicine

This pharmacy practice experience focuses on providing patient-centered care to hospitalized patients. The student will apply their therapeutic knowledge to assess and develop therapeutic plans for patients in collaboration with other healthcare professionals, especially physicians. The student will also be involved in taking medication histories, monitoring patient progress and providing drug information to health care professionals and patients. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7027 Family Medicine

This elective pharmacy practice experience is focused on providing patient-centered care of patients who are receiving care in a family practice inpatient and/or outpatient environment. Students will gain experience in communication and assessment skills, physical assessment, chronic disease management and preventative care, and therapy modifications for special patient groups. Other skills developed include drug literature analysis, patient education and counseling, interprofessional communication, and designing and implementing safe, efficacious and cost effective drug therapy to the patient. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7028 Infectious Disease

This elective pharmacy practice experience in an institutional setting is intended to expose the student to appropriate utilization of antimicrobial agents in the hospital setting. Antimicrobial resistance and its effect on antibiotic utilization will be discussed and reviewed. The student with received training and experience in the areas of clinical pharmacokinetics, drug therapy evaluation, interpretation of laboratory results, effective communication with other members of the healthcare team, drug interaction screening, drug literature and new product evaluation, formulary research for the P & T Committee, and patient education. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7029 Internal Medicine

This pharmacy practice experience focuses on providing patient-centered care to hospitalized patients. The student will apply their therapeutic knowledge to assess and develop therapeutic plans for patients in collaboration with other healthcare professionals, especially physicians. The student will also be involved in taking medication histories, monitoring patient progress and providing drug information to health care professionals and patients. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7031 Surgery

This elective pharmacy practice experience is designed to provide students with experience in the fundamentals of surgery pharmacy. After completing this clerkship, the student will have a better understanding of the drugs used in surgery, surgical procedures and general patient care. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7032 Academia

Students will participate in all parts of the academic process including literature review of teaching methods, facilitating small groups, preparing lectures, syllabi, and examination questions, preparing equipment for laboratory sessions, grading selected assignments, evaluating the current curriculum, and being an active participant in committee meetings and decision-making at the college level. Students will work with the primary preceptor(s) in discussions, as well as independently to accomplish assigned tasks to expose the student to what it means to be an academician in all three pillars of academia – teaching, scholarship, and service. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7034 Outpatient Oncology/Hematology

This experience is designed to provide the student with the opportunity to gain knowledge, skills, and practical experience in working with outpatients and some inpatients with neoplastic disease and the rational therapy with oncological agents. The student will work closely with the healthcare team and patients in pain management, nausea/vomiting management, and side effects management. The student will participate in designing customized medication patient regimens and educating the patients regarding their therapy. The student will also be assisting in monitoring patients while they are receiving intravenous chemotherapeutic medications on site. Some compounding of chemotherapeutic agents will be required. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7035 Post-Op Orthopedic Care

The pharmacy practice experience focuses on providing patient-centered care in the inpatient rehabilitation center, involving patients that are post-stroke, hip or knee replacement with comorbidity, amputation, or other diagnosis that requires intensive inpatient rehabilitation. Student will participate in multi-disciplinary case conference, medication reconciliation, providing discharge medication education, and other drug information questions. The student will be monitoring and adjusting anticoagulation medications and optimizing patient profiles by performing Medication Therapy Management functions. Pharmacokinetics of vancomycin and the aminoglycosides will be an essential function of the student. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7036 Indian Health Service

This experience is designed to provide the student with the opportunity to work within the hospitals and clinics provided by the Department of Health and Human Services through the agency, Indian Health Service. This agency is responsible for providing American Indians and Alaska Natives with federal health services. In this course, students will learn how to incorporate modern and currently accepted health care practices into the Indian cultures and traditional tribal healing methods. Students will gain valuable knowledge into cultural diversity and the unique needs of these patient populations.

Students will be involved in counseling on every new outpatient medication using the I. H.S. format, with the goal of no patient knowledge gaps regarding therapy and medications. Participation in the anticoagulation, lipid, hypertension and dialysis clinics, reviewing and monitoring therapy and making therapy adjustment will also be part of the student's experience. Students will have the opportunity to spend time in the inpatient areas as well. Inpatient time will be spent on the floor and at patient bedside performing kinetic calculations and monitoring therapy. Students will have the opportunity to compound necessary IV medications if needed. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7037 Pharmaceutical Industry-Drug Information

This elective pharmacy practice rotation will provide the student with an insight into the roles, responsibilities, and daily activities of Pharmacists in drug information within the Pharmaceutical Industry. The student will not only become familiar with the process of obtaining and evaluating information from the medical literature, but will be able to present the information among other professionals. This course will provide the student the ability to learn how to apply information obtained from various sources to answer drug information questions received from healthcare professionals, patients/caregivers and the general public. The student will also become familiar with the medical and technological resources utilized to provide accurate information as well as the ethical issues pertaining to communicating drug information. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7038 Global Health Outreach

(Student is required to travel internationally with the partnering organization. Student will pay international travel costs.) The Global Health Outreach Elective Rotation is an advanced pharmacy practice elective for P4 students. This elective rotation exposes students to pharmacy-related opportunities in non-traditional settings focused on an indigent population. The student will provide pharmaceutical care to patients at a multidisciplinary healthcare clinic, as well as, serve as a drug information consultant to other healthcare professionals. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7039 Cardiology

This elective pharmacy practice experience is designed to provide the student with an in-depth experience in providing care for patients in the cardiology setting. The rotation will allow students to develop and apply knowledge of cardiology topics. Students will develop individualized pharmaceutical care plans for assigned patients in the cardiovascular units and/or clinics. Students may have the opportunity to counsel patients on anticoagulant or antiarrhythmic medications. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7040 Anticoagulation

This elective pharmacy practice experience is designed to expose the student to comprehensive anticoagulation management including vitamin K antagonists, direct thrombin inhibitors, and heparins. Students will participate in inpatient and outpatient anticoagulation, including patient education, monitoring, and dosing. *Prerequisite: Must be enrolled in fourth professional year.*

APPE 7041 Emergency Medicine

This elective pharmacy practice experience is designed to provide the student with an experience in providing care for patients in an emergency department and /or trauma setting. Students will gain enhanced foundation skills in patient assessment and drug therapy assessment, monitoring, and management. Knowledge in therapeutics and decision making skills will be enriched. Students will have exposure to a variety of disease states which will allow them to gain experience in gathering and evaluating patient data and making therapeutic decisions and monitoring drug data. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7042 Writing a Pharmaceutical Sciences Research Manuscript

(This experience is classified as an “add-on” experience and as such is to be completed in addition to the required core and elective APPE rotations.) The object of this experience is for the student to author and submit a scientific manuscript based on the student’s research experience. This will incorporate student learning of the relevant background material on the subject, refining and assessing their own data for presentation, completing a full manuscript according to the requirements of the journal of interest, presenting the manuscript in a seminar format with faculty comments, and overseeing submission to a journal. The goal is to provide the student with the experience needed to initiate and manage independent submission and publication of their own future research results. As publication is the final act in the completion of a research project, this course will prepare the student to be an independent researcher familiar with all phases of the process in their future career. *Prerequisite: The student must have completed research in the advisor’s laboratory under the course listings of PMSC 7204, 7205, 7206, 7208, 7209, or 7210. The student must be enrolled in the fourth professional year.*

APPE 7043 Writing a Pharmacy Practice Research Manuscript

(This experience is classified as an “add-on” experience and as such is to be completed in addition to the required core and elective APPE rotations.) The objective of this experience is for the student to author and submit a scientific manuscript based on the student’s research/project experience in the in the Pharmacy Practice Research/Scholarship I/II/III series. This will incorporate student learning of the relevant background material on the subject, refining and assessing their own data for presentation, completing a full manuscript according to the requirements of the journal of interest, presenting the manuscript in a seminar format with faculty comments, and overseeing submission to a journal. The goal is to provide the student with the experience needed to initiate and manage independent submission and publication of their own future research results. This experience is classified as an “add-on” rotational experience and as such is to be completed in addition to the 5 required core APPE rotations and 4 required elective APPE rotations during the fourth professional year of

pharmacy school. *Prerequisite* : The student must be enrolled as fourth year professional student and have completed one of the courses in the Pharmacy Practice Research/Scholarship series (PMPR 7113-7115, 7120-7122).

APPE 7044 Independent Community Pharmacy Ownership

This pharmacy practice experience in a community pharmacy setting is intended to assist in preparing the student for independent community pharmacy ownership. In addition to basic community pharmacy activities such as medication dispensing, patient counseling, drug therapy monitoring, medication therapy management and drug information services, resource management and operations management will also be incorporated into the experience. Financial analysis and human resource issues will be emphasized during the experience.

Prerequisite: Must be enrolled in the fourth professional year.

APPE 7045 Veterinary Pharmacy Practice

This elective practice experience is designed to provide students with exposure to veterinary pharmacy. Students will be exposed to and participate in patient-care experiences in a variety of treatment areas. Students will gain an understanding of the pharmacy services a pharmacist can provide to a veterinary facility, and familiarity with the unique pharmaceutical needs and the specific dosage forms needed in the management of animals, which would include the compounding and administration of animal products/medications. Students will be able to advise the client/owner on the care of animals and the use of animal products. Students will also gain the skills to consult with/advise veterinarians in the management of drug therapy for animals. The students will be provided with the necessary information so that they may consider pursuing a pharmacy specialty in animal health. *Prerequisite*: Must be enrolled in fourth professional year.

APPE 7046 Ambulatory Care/Patient Centered Medical Home

This elective advanced pharmacy practice experience is designed to allow the student to actively participate in the delivery of pharmacy care in a primary care, multidisciplinary practice setting. Students will gain experience in direct patient management of chronic disease states through participating in pharmacist-run anticoagulation and pharmacotherapy clinics. Students will be involved in obtaining patient medical and medication histories, evaluating drug therapies, developing pharmacy care plans, monitoring patients' therapeutic outcomes, consulting with physician and non-physician providers where appropriate, and providing patient and health care provider education. Students will also gain experience documenting appropriate information in the electronic medical record. *Prerequisite*: Must be enrolled in the fourth professional year.

APPE 7047 Drug Research at NIDA

The object of this experience is for the student to have an immersion experience in the research laboratory at the National Institute of Drug Abuse (NIDA) in Baltimore, MD. The student will participate in the daily research activities in the laboratory and will carry out assignments as assigned by the laboratory director. Specific tasks may involve fabricating electrodes for nerve cell recordings, preparation of molecular probes, assisting with animal surgery, behavioral training of research subjects, recording data and tracking experimental data, and retrieving and summarizing relevant scientific literature. The student will prepare a

summary presentation of the experience to be presented to the faculty at ETSU. *Prerequisite: Must be enrolled in fourth professional year. Student must complete interview with department chair prior to selection for this APPE.*

APPE 7048 CDC Pharmacy Student Experiential Program

The Centers for Disease Control and Prevention (CDC) is based in Atlanta, GA. CDC's Mission is to collaborate to create the expertise, information, and tools that people and communities need to protect their health through health promotion, prevention of disease, injury and disability, and preparedness for new health threats. This elective clerkship will give the student a general understanding of pertinent public health issues, the roles pharmacists have within CDC, as well as the career opportunities available for pharmacists in the U.S. Public Health Service. The student will be able to take advantage of the many public health lectures/seminars that are presented at CDC during their rotation. *Prerequisites: Must be enrolled in fourth professional year. Student must complete interview with department chair prior to selection for this APPE.*

APPE 7049 International APPE

(The student is required to travel internationally to an affiliated site for this elective rotation. Associated costs will be in accordance with a predetermined financial partnership between the student and the College. There is a competitive selection process for this course.)

This elective advanced pharmacy practice experience allows the student to study the practice of pharmacy within the health care delivery system of a foreign country. Students will actively participate in practice situations in order to expand their knowledge of the opportunities available to pharmacists abroad as compared to opportunities available in the United States. This unique experience will expand the students' knowledge of health systems in Europe and will also foster an appreciation for cultural similarities and differences. *Prerequisite: Must be enrolled in the fourth professional year.*

APPE 7050 Advanced Nuclear Pharmacy and PET Radiopharmaceuticals

This elective pharmacy practice experience introduces the student to the advanced practice of low energy nuclear pharmacy and Positron Emission Tomography (PET) radiopharmaceutical manufacturing. The low energy nuclear pharmacy and PET radiopharmaceutical experience will concentrate on pharmaceutical care and advanced (low energy and PET) radiopharmaceutical compounding, quality assurance, health physics and regulatory compliance. The student will have the opportunity to communicate with the nuclear medicine personnel and participate in the clinical use of diagnostic and therapeutic radiopharmaceuticals on an advanced level. *Prerequisites: APPE 7011; must be enrolled in the fourth professional year.*

APPE 7051 Practice-Based Research Experience

This APPE enables the student to gain experience conducting practice-based research within a pharmacy practice setting. The student will participate in daily research activities and will carry out assignments under the direction of the site-specific preceptor. General activities may include, but are not limited to: developing IRB protocols, developing research proposals, conducting practice-based research, presenting research findings, preparing manuscripts for publication, analyzing data, and retrieving and summarizing relevant scientific literature. The

specific research activities available for each elective can vary based on projects approved and the stage of completion as well as stage of IRB submission for pending projects. Typically available areas of experiences will include:

- Human subjects/ethics training and associated requirements
- Engagement in practice site research activities (e.g., clinical trials conduction, manuscript preparation, project development)

In addition to research activities students may engage in clinical duties of pharmacist providers at the site. Depending on the level of preparation of the trainee this can include patient education about non-research treatments, assistance with medication use evaluations, and/or formulary treatment decisions. Students may also be asked to provide journal presentations regarding evolving clinical guidelines or recent research. *Prerequisites: Must be enrolled in the fourth professional year and approval by course coordinator.*

APPE 7052 PharmD/MPH Field Experience

The Doctor of Pharmacy and Master's of Public Health (PharmD/MPH) is a dual degree course of study that complements clinical pharmacy training with the additional in-depth training in public health. This elective APPE allows the student to complete the required public health field experience in her or her chosen concentration - Biostatistics, Community Health, Epidemiology, Environmental Health or Health Services Administration - while also meeting the public health aspect of the College of Pharmacy curriculum. This combined practicum/APPE elective will consist of eight weeks or 300 hours. All training must be approved and accepted by both the College of Pharmacy and the College of Public Health in advance of execution. A specific agenda for the training shall be maintained in the student's file. *Prerequisites: Must be enrolled in the fourth professional year and enrolled in the PharmD/MPH joint degree program.*

APPE 7053 FDA Pharmacy Student Experiential Program

The Food and Drug Administration is one of the nation's oldest and most respected consumer protection agencies. FDA's mission is to promote and protect the public health by helping safe and effective products reach the market in a timely way, and monitoring products for continued safety after marketing. The FDA Pharmacy Student Experiential Program includes opportunities to attend FDA advisory committee hearings, congressional hearings, and a monthly lecture series. In addition to learning about FDA operations, students interact with other pharmacy students from schools across the country and learn about pharmacist career opportunities available in government. *Prerequisites: Must be enrolled in the fourth professional year.*

APPE 7054 Pain Management (*pending approval*)

APPE 7055 Medication Safety and Clinical Management (*pending approval*)

APPE 7056 International APPE II

(The student is required to travel internationally to an affiliated site for this elective rotation. Associated costs will be in accordance with a predetermined financial partnership between the student and the College. There is a competitive selection process for this course.)

This elective advanced pharmacy practice experience allows the student to study the practice of pharmacy within the health care delivery system of a foreign country. Students will actively participate in practice situations in order to expand their knowledge of the opportunities available to pharmacists abroad as compared to opportunities available in the United States. This unique experience will expand the students' knowledge of health systems in Europe and will also foster an appreciation for cultural similarities and differences. *Prerequisites: Must be enrolled in the fourth professional year.*

APPE 7057 International APPE III

(The student is required to travel internationally to an affiliated site for this elective rotation. Associated costs will be in accordance with a predetermined financial partnership between the student and the College. There is a competitive selection process for this course.)

This elective advanced pharmacy practice experience allows the student to study the practice of pharmacy within the health care delivery system of a foreign country. Students will actively participate in practice situations in order to expand their knowledge of the opportunities available to pharmacists abroad as compared to opportunities available in the United States. This unique experience will expand the students' knowledge of health systems in Europe and will also foster an appreciation for cultural similarities and differences. *Prerequisites: Must be enrolled in the fourth professional year.*

APPE 7058 Hospice (Pass/Fail credit only)

This elective advanced pharmacy practice experience allows the student to observe hospice care and the role medications and pharmacists play in caring for patients near the end of life. Students will shadow caregivers during home visits to patients, work with the inpatient hospice coordinator, discuss medication issues related to hospice with a clinical pharmacist, and shadow pharmacists supplying hospice medications. *Prerequisites: Must be enrolled in the fourth professional year.*

Approved Didactic Electives within the Bill Gatton College of Pharmacy

PMIN 7301 Pharmacy Research Seminar (1 cr. hr)

This course will provide students with exposure to current research and advances in Pharmacy and related sciences by examining recently published articles. It will also require students to present articles, discuss scientific issues, and understand the analysis of research projects.

PMPR 7101 Folk Medicine and Remedies of Southern Appalachia (2 cr. hrs)

An introduction to Appalachian folk medicine will be presented, including the examination of health, illness, and the treatment of disease from a pharmacist's perspective. This includes discussion of various theories of illness, types of healers, nostrums, and the empirical basis for the remedies and alternative forms of therapy. Some of the medicinal properties of the treatments prescribed in the rural Appalachian region will be discussed.

PMPR 7102 Professional Development for Postgraduate Training (2 cr. hrs)

This course addresses various issues related to professional development and postgraduate training. It offers a review of postgraduate training opportunities available to graduating student pharmacists with a focus on pharmacy residencies. Through individual preparation

before class, interactive face-to-face discussions and activities, and the completion of major assignments (letter of intent, curriculum vitae, and residency applicant portfolio) students will appreciate the various components of professional development and the benefits of residency training. Students will also learn the steps to secure a postgraduate year one (PGY1) residency upon graduation. *Prerequisite: Students must be enrolled in the third professional year.*

PMPR 7103 Evidence-Based Diabetes Management (2 cr. hrs)

This course provides an evidence-based foundation in the principles of diabetes therapy and management. The student will develop their knowledge and ability to assess, manage, educate, monitor, and recommend pharmacotherapy for patients with diabetes. Students successfully completing the elective will have the knowledge and basic skill set to begin practicing diabetes management. Diabetes within the rural Appalachian region will be emphasized with students interviewing and observing pharmacists practicing advanced management skills. *Prerequisite: Students must be enrolled in the third professional year.*

PMPR 7104 Relationship of Pharmacy and Health Disparities in the Appalachian Region (2 cr. hrs)

The U.S. healthcare system is often criticized for its high national costs and outcomes that are less than favorable when compared to other nations. Many poorer outcomes can be observed in differences of health risk, illness, health services utilization and mortality that vary by gender, race and ethnicity, age, and place of residence. This course will explore regional health disparities through understanding the pivotal influence of pharmacy needs and care. This course will engage students in teams to explore regional health disparities and define the influence of the presence or absence of pharmacy-related services and initiatives on regional health.

PMPR 7105 Interprofessional End-of-Life Clinical Care (3 cr. hrs)

This course is an interprofessional elective course with content related to death/dying and quality end-of-life care for graduate students in Social Work, Public Health, Medicine, Nursing, and Pharmacy. This course is designed to assist students in exploring important elements of palliative and end-of-life care to effectively recognize and address the needs of those nearing the end of their lives. Topics to be addressed include: pain and symptom management, palliative care and hospice models, end-of-life conversations, ethical dilemmas, grief and bereavement, spirituality, and social, economic and legal issues at the end of life.

PMPR 7106 History of Pharmacy (2 cr. hrs)

History of Pharmacy will survey the historical development of Medicine and drugs from Ancient times through the present. The emergence of Pharmacy and Pharmacists as a distinct profession and professionals will be highlighted, along with the development of the educational, legal, and social framework which supported this development. Through coursework, readings, discussion, and projects students will develop an appreciation for the living history of the profession of Pharmacy and their place in it.

PMPR 7107 Drug-Induced Diseases (2 cr. hrs)

This course is designed to help the second and third-professional year pharmacy students to develop the knowledge and skills needed to properly address drug induced diseases. Societal expectations regarding medication safety have changed dramatically over the years. Patients expect to be fully informed about the risks of prescribed drugs. Patients expect the pharmaceutical industry, regulatory agencies, and health care providers to protect them from drug-induced diseases. The effects of drugs are not always entirely beneficial. Although they may cure or positively affect a disease, drugs are also capable of causing new diseases or exacerbating those that already exist. The purpose of this class is to provide comprehensive information regarding detection, prevention, and management of drug induced diseases. Every time a patient presents with a new disease or exacerbation of an existing condition, someone needs to ask, "Could this be drug induced?" If the answer is yes, then, "How do we treat it?" Simply knowing that a given drug may cause a particular disease is not enough.

PMPR 7108 Ambulatory Care Pharmacy Practice in Appalachia (2 cr. hrs)

This course is an elective course designed to introduce and develop the student pharmacist's knowledge regarding various aspects of ambulatory care pharmacy practice. In addition to the concept of chronic disease management, students will become familiar with prevention and wellness concepts. Also, this course will serve as an introduction to social, economic, cultural and psychological intricacies as well as opportunities in ambulatory care pharmacy practice. Through multidisciplinary instructors and topics covered, students will gain insight into the pharmacist's role as part of patient-centered, interdisciplinary primary care team, specifically in the Appalachian region. *Prerequisite: Must be enrolled in the second or third professional year.*

PMPR 7109 Women's Health (1 cr. hr)

The purpose of this course is to supplement women's health material covered elsewhere in the curriculum. Emphasis will be placed on broadening students' knowledge in common women's health areas, introducing new topics not covered elsewhere in the curriculum, and discussions related to controversies in women's health. The course will be taught using a mixture of self-directed learning, traditional lecture, active learning exercises, group discussions, and student presentations. *Prerequisite: Must be enrolled in the third professional Year.*

PMPR 7110 Anticoagulation (1 cr. hr)

This course will develop the fundamental skills acquired in the Pharmacotherapy course series and provide an in-depth training at managing various anticoagulation treatments and related diseases. The course will offer additional training focused on all areas of practice including both acute and ambulatory care. *Prerequisite: Successful completion of Pharmacotherapy I and II; must be enrolled in the third professional year.*

PMPR 7111 Advanced Oncology Pharmacy (1 cr. hr)

This course series will supplement the oncology material covered in the Pharmacotherapy series. Emphasis will be placed on malignancies and high level oncology topics not covered in class. Malignancies not covered in the Pharmacotherapy series will be taught using a traditional lecture format. High level topics will be taught through the use of case studies that

will foster/develop self-directed learning. *Prerequisite: Must be enrolled in the third professional year of the curriculum and be in good academic standing*

PMPR 7112 Advanced Pediatric Pharmacy (1 cr. hr)

This course series will supplement the pediatrics material covered in the Pharmacotherapy series. Emphasis for the course will be placed on practical issues involving infants and children that the pharmacist will encounter. This will be accomplished through a variety of readings, case studies and presentations. *Prerequisite: Must be enrolled in the third professional year.*

PMPR 7113/14/15 or 7120/21/22 Pharmacy Practice Research/Scholarship I-VI (1-4 cr. hrs)

This course will provide the student the opportunity to learn about a practice-based research project through its conception, design, execution and reporting by working independently with a faculty advisor on a selected project. Each specific agreement will include a description of the objectives intended for this offering in the agreement. *Prerequisite: Signed agreement between the student and a faculty advisor, approved by the department chair*

PMPR 7116 Business Plan Basics for Independent Pharmacy (2 cr. hrs)

The course is designed to prepare students to write and present a business plan for the purchase of an independent community pharmacy. Considerations will be given to the many variables of ownership and management which may impact business success. The course will focus on business development, financial planning, capital generation and marketing of an independent pharmacy. The course is designed to encourage entrepreneur spirit and business planning skills. *Prerequisites: Must be in in second or third professional year; National Community Pharmacy Association (NCPA) membership*

PMPR 7117 Personal Finance for the Future Pharmacist (1 cr. hr)

This course is designed to both introduce and develop the student pharmacist's knowledge regarding multiple aspects of personal finance. Topics to be covered include budget development, dealing with debt, purchasing decisions, cash allocation principles, the credit concept, net worth, insurance, career planning, and retirement planning. Dave Ramsey's Foundations in Personal Finance college curriculum will be used in the course. *Prerequisite: Must be enrolled in the second or third professional year.*

PMPR 7118 Substance Abuse and Addiction in Appalachia: Impacting the Community through a Vision of Change (2 cr. hrs)

An integrated study of the history, physical, sociocultural, and psychological effects of substance abuse and the underlying disease of addiction. The course content relies on the most current data and studies as well as practical information and interviews drawn from treatment professionals and their patients. The material gives perceptive insights into the complex fields of drug abuse, compulsive behaviors, addiction, treatment, recovery, and prevention. *Prerequisite: Must be enrolled in the second or third professional year*

PMPR 7119 Infectious Diseases Pharmacotherapy (2 cr. hrs)

This course will supplement the fundamental concepts of infectious diseases introduced in the Pharmacotherapy series. The course will discuss important topics in greater detail as well as unique topics which are not currently covered in the infectious diseases module. This course should be taken by students who have a strong interest in infectious diseases and/or are likely to seek post-graduate training in either an acute or ambulatory care setting. *Prerequisite: Must be enrolled in the second or third professional year*

PMPR 7123 HIV Pharmacotherapy (1 cr. hr)

This course is intended to augment the concepts discussed in the infectious disease coursework in the curriculum. Specifically, the course will provide students with the opportunity to learn more about human immunodeficiency virus (HIV) infection and AIDS, the therapeutic approach in treatment naïve patients, treatment experienced patients and special populations (e.g. pregnancy). This course will also include several discussions on the stigma of living with HIV. *Prerequisite: Successful completion of PMPR 4200; must be enrolled in the third professional year.*

PMPR 7124 Primer on Pharmacy Policy and Advocacy (1 cr. hr)

This elective course is intended to enable student pharmacists to become actively involved in policy and legislative issues that impact the profession of pharmacy, other aspects of healthcare, and general legislation affecting the general population. Further, this course aims to strengthen students' leadership ability and enhance their potential for future volunteer leadership within the profession and in their respective communities. Throughout the course, students will be tasked with understanding of the legislative process, will have the opportunity to interact with key policy makers, and will have the opportunity to engage in legislative and professional advocacy through various methods. By the end of the course, students should have an understanding of advocacy, the legislative process, how to engage professionally within the legislature, and the importance of professional citizenship. *Prerequisite: Must be enrolled in the second or third professional year*

PMPR 7125 Patient-Centered Care for the Underserved (1 credit hour)

This course is an elective course designed to introduce and develop the student pharmacist's knowledge and awareness of underserved patient populations. Underserved, indigent, and homeless patients have unique social, cultural, and economic factors that play into their overall health and access to health care resources. A component of this course will serve to increase a student's knowledge of methods to access health care for underserved patient populations. In addition to knowledge of programs available to underserved patients, students will participate in exercises to develop empathy for the lifestyle of underserved patients they may encounter in practice. This course will serve as an introduction to social, economic, cultural and psychological intricacies as well as opportunities in caring for underserved patients. Through multidisciplinary instructors and topics covered, students will gain insight into the pharmacist's role as part of patient-centered care for the underserved, specifically in the Appalachian region. *Prerequisites: Must be enrolled in the second or third professional year.*

PMPR 7126 Global Healthcare: Perspectives and Practice (3 credit hours)

Global Healthcare: Perspectives & Practice is a blended format, interprofessional course designed to introduce health professional students to global concepts without requiring a passport. Students will actively engage in gaining a global perspective through online modules, mini cultural experiences, technology, discussion, self-reflection, and small and large group exercises. This course has no examinations as it is designed to guide a change in perspective. Students will gain an appreciation of other healthcare systems and other cultures in preparation for their future practice. This course serves as a foundational preparation step for practicing cross-cultural competency as a healthcare professional and for any future short term trips a student may choose to take. *Prerequisite: Currently enrolled in a healthcare professional program in the AHSC or by approval of the course coordinator.*

PMPR 7127 Developing Point of Care Testing Services within a Community Pharmacy Practice (1 credit hour)

This elective course is designed to provide an opportunity for student pharmacist to gain the skills, knowledge, and information necessary to develop a point-of-care testing program within a community pharmacy setting. Completion of this elective will prepare student pharmacists for success on the online assessment for the National Association of Chain Drug Stores (NACDS) *Community Pharmacy-Based Point-of-Care Testing* certificate program. With completion of the course and a passing score (70% after two attempts) on the online assessment, students will receive a certificate of completion.

The goal of this course is to develop competency in patient assessment, physical assessment, disease state presentation, pharmacy law and risk management skills sets to empower pharmacists to use effective, fast technology to aid their decision making at the “point-of-care” to improve patients’ health. Student pharmacists should receive adequate clinical, legal/regulatory, and business training so they are equipped with the skills needed to implement these services within their practice, and ultimately have success in the workforce. *Prerequisite: Must be enrolled in the second or third professional year*

PMPR 7128 Delivering Medication Therapy Management Services (1 credit hour)

This elective course envelops and expands upon the American Pharmacists Association (APhA)’s *Delivering Medication Therapy Management Services* certificate training program. It presents a systematic approach for developing, implementing, delivering, and sustaining MTM services. It includes an overview of the marketplace for delivering MTM services, guidance for implementing MTM services in pharmacy practice, a review of the essential skills and knowledge needed for performing MTM successfully, and an organized process for identifying medication-related problems. The purpose of this certificate training program is to prepare pharmacists to improve medication use through the delivery of MTM services in a variety of practice settings, particularly in the community sector. The course is conducted in two parts: 1) An eight-week mini elective course based off of the APhA program live session, supplemented with web-based interactive self-study activities, assessments, and simulated cases to demonstrate real-world application of MTM principles and 2) A post-course requirement of MTM case completion, where students complete an assigned number of MTM cases over the course of their P4 year in order to satisfy the requirements of the certification

Following the successful completion of these both parts and a program evaluation, participants will be awarded a Certificate of Achievement from APhA. This certificate shows employers that the student has been through a standardized training program and may provide a way to differentiate the student from others at the practice site or when applying for employment. *Prerequisite: Must be enrolled in the third professional year*

PMSC 7201 Veterinary Pharmacy (2 cr. hrs)

This class contains an overview of biologicals and pharmaceuticals commonly encountered in the practice of veterinary medicine, concentrating on those drugs and diseases that could be encountered by a pharmacist. The course will include agents that are used solely as veterinary pharmaceuticals as well as drugs used in human medicine that have unique application in veterinary practice. Theoretical and practical aspects of veterinary compounding will be discussed and accomplished. The most common companion animal diseases and pharmacotherapy options will be presented and discussed. Diseases communicable between animals and humans (zoonotic disorders) will also be presented.

PMSC 7202 Principles of Toxicology (2 cr. hrs)

This course will provide students with an understanding of the basic principles and concepts of toxicology, including various mechanisms of toxicological response. The course will also present clinical applications, including the toxicology of various drug classes, vitamins, alcohols, metals, environmental chemicals, and agents used for chemical and biological warfare.

PMSC 7203 Non-Medicinal Drug Use (2 cr. hrs)

This course covers a wide range of topics centered around the use of drugs for non-medicinal purposes. Inherent in the course is the discussion on the continuum of legitimate versus non-legitimate drug use, or medical versus non-medical use. The major focus of the subject material pertains to issues of drug abuse, particularly in Appalachia and other rural environments. Other issues such as ergogenic drugs, entheogenics, and cultural drug use, both current and historical, will be considered. Multiple faculty participate in the course.

PMSC 7204/05/06 or 7208/09/10 Pharmaceutical Sciences Research I-VI (1-4 cr. hrs)

This course will provide the student the opportunity to learn about laboratory research through experimental conception, design and execution by working independently with a faculty advisor on a selected research project. Each specific agreement will include a description of the objectives intended for this offering in the agreement. *Prerequisite: Signed agreement between the student and the faculty advisor, approved by the department chair*

PMSC 7207 Fundamentals of Clinical Trials (2 cr. hrs)

This course will familiarize the student with the main aspects of clinical trials in industry, academia and government settings. It will provide the student with an overview of the FDA and regulatory requirements in the drug development process, as well as the responsibilities that a PharmD acquires when he/she assumes the role of Principal Investigator (P.I.) of a clinical trial.

Approved Didactic Electives offered by ETSU Colleges

ACCT 5050 Health Care Accounting and Finance (3 cr. hrs)

This course applies the concepts of accounting and finance within the context of the health care industry. Course coverage includes basic accounting and finance principles and how these principles are applied in the health care arena. Topical coverage includes financial statement preparation and analysis, cash flow analysis, cost behavior control, capital acquisition, budgeting, reimbursement mechanisms, and managed care.

BADM 5150 Accounting Information for Decision Makers (3 cr. hrs)

The objective of this course is to prepare managers to effectively use accounting information in making management decisions. This course is intended to provide an understanding of the origin of information contained on the financial statements; the ability to determine the accounting information needed to make optimal decisions; an increased understanding of alternative uses of accounting information; the ability to apply appropriate accounting techniques in various situations; and an appreciation of the value of accounting information.

Prerequisite: Enrollment in the PharmD/MBA dual degree program

BADM 5220 Global Business (3 cr. hrs)

Global Business will provide students with an understanding of the cross-functional aspects of managing an organization in the contemporary international economy. The course will integrate the cross-cultural dimensions of management with the economic and strategic aspects of conducting business across the globe. This course will provide students with a theoretical base as well as the opportunity to apply business and management concepts to real problems and policy issues for multinational organizations. *Prerequisite: Enrollment in the PharmD/MBA dual degree program*

BADM 5430 Applied Corporate Finance (3 cr. hrs)

This course applies analytical techniques to the firm's investment and financing decisions. Topics include capital budgeting; capital structure; short-, intermediate, and long-term financing; asset valuation techniques. The course will be conducted in a lecture, discussion, and case- analysis format. The material will be divided into modules with assessment for each module. *Prerequisite: Enrollment in the PharmD/MBA dual degree program*

BADM 5500 Strategic Management Process (3 cr. hrs)

This course introduces students to strategic thinking and provides a framework for the entire program. It takes an executive perspective of general management. The course provides an understanding of the interdependence between the organization and its environment, with a focus on managing organizations in changing environments, maintaining legitimacy with diverse stakeholder groups, providing clear corporate direction, and ensuring the long-term survival and success of the enterprise. *Prerequisite: Enrollment in the PharmD/MBA dual degree program*

BSTA 5310 Biostatistics I (3 cr. hrs)

Introduces the principles of Biostatistics with emphasis on collection, organization, analysis and interpretation of numerical data for populations and individuals. The course presents

many statistical methods that have a broad application in health services and biological sciences. Major topics include data presentation, summary measures, probability, confidence interval, hypothesis testing, correlation analysis and simple linear regression. The method of instruction emphasizes understanding of key concepts and statistical techniques through readings, assignments and exams, as well as application of Biostatistics principles to cases in public health practice. The course has multiple opportunities to assess competence of students, including grasp of key concepts, statistics methods and application skills.

Prerequisite: Enrollment in the PharmD/MPH dual degree program

COBH 3330 Cultural Competence and Spirituality in Health Care (3 cr. hrs)

Health care effectiveness increases when the spiritual and cultural traditions of the patient are addressed. In this class, students will receive an orientation to the practices and concerns of diverse cultural and religious groups.

COBH 5200 Social & Behavioral Foundations of Public Health (3 cr. hrs)

This course reviews the concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems. Social, cultural, economic and environmental factors are discussed as the fundamentals upon which public health has been developed at the various governmental and community levels. *Prerequisite: Enrollment in the PharmD/MPH dual degree program*

ENVH 5100 Environmental Health Practice I (3 cr. hrs)

The effects of environment and occupations on health are discussed. Consideration is given to such factors as solid waste, water, wastewater, insects, rodents, and noise. The historical background of human ecology, communicable disease control, and special programs and problems in public health are discussed. *Prerequisite: Enrollment in the PharmD/MPH dual degree program*

EPID 5400 Epidemiology I (3 cr. hrs)

This course is designed to provide the student with an introduction to the principles of epidemiology and the application of epidemiology to public health practice. The use and analysis of health statistics are emphasized. *Prerequisite: Enrollment in the PharmD/MPH dual degree program*

EPID 5700 Interprofessional Perspectives on Global Health (3 cr. hrs)

This course addresses the knowledge and skills necessary to work in interprofessional healthcare teams in a global health setting. Topical areas include defining global health and social justice, building effective health delivery in underserved settings, understanding unique challenges in global health, values and global health, and global health priorities. EPID 5700 is a graduate level study abroad course. It consists of one week of lectures at ETSU prior to the study abroad trip to Nicaragua for 11 days, and a week of lectures at ETSU following the trip. *NOTE: Graduate tuition, course program fees, and travel expenses are the student's responsibility.*

HSMP 5020 Philosophy of Public Health (1 cr. hr)

This course serves as an introduction to public health practice. (pass/fail) *Prerequisite:* Enrollment in the PharmD/MPH dual degree program

HSMP 5500 Health Service Administration (3 cr. hrs)

This course presents managerial theory in a way that demonstrates its generic applicability to all types of health service organizations. This is accomplished by using a process orientation that focuses on managerial functions, concepts, principles and roles within context of health care organizations. *Prerequisite:* Enrollment in the PharmD/MPH dual degree program

IDMD 1940 Rural Health Research and Practice (3 cr. hrs)

Student and faculty teams in rural communities partner with communities to assess health priorities and develop plans to address identified needs. Students develop an understanding of interdisciplinary working relationships among health professional disciplines. Students will develop an understanding of issues associated with research involving human subjects and receive IRB Training.

IDMD 2950 Rural Community Based Health Project (3 cr. hrs)

In this course, students work in interdisciplinary teams to develop a community-based health proposal in collaboration with their rural community partners. Through implementing and evaluating the proposed community-based project, students gain hands-on experience in using participatory methods to promote the health of a selected rural population. Students enhance their formal presentation skills through presenting the results of their community-based project.

PMSY 6100 Pharmaceutical Analysis (3 cr. hrs)

This course will cover topics related to pharmaceutical analysis, both for biological samples and dosage forms. The methods of separation covered will include liquid chromatography, gas chromatography, and capillary electrophoresis. In addition, students will learn about the various detectors that are coupled to these separation techniques, including mass spectrometry, ultra- violet detection), and fluorescence detection. Finally, methods of sample preparation will be covered, including liquid-liquid extraction, solid-phase extraction, and solid-phase micro- extraction.

PMSY 6205 Advanced Drug Metabolism (3 cr. hrs)

This course covers biotransformation reactions, enzymes involved in the metabolism of drugs, methods used for studying drug metabolism, factors affecting hepatic clearance and inhibition and induction of drug metabolism. Also, methods used for studying drug metabolism and application of metabolism studies in drug development will be discussed. The course consists of a series of lectures. A written report on the topic of interest and an oral presentation by students are required. *Prerequisite:* PMSC 4124 and PMSC 4134

PMSY 6210 Advanced Pharmacokinetics (3 cr. hrs)

The course will focus on the areas of pharmaceutical sciences and drug delivery at an advanced level. The topics include physical properties of drugs, ionic equilibria, solubility and related phenomena, drug diffusion and permeability, drug stability, interfacial

phenomena, colloids, micromeritics, drug dissolution, and drug delivery system formulation and design.

PMSY 6220 Advanced Pharmaceutics (4 cr. hrs)

This course covers quantitative aspects of absorption, distribution, metabolism and elimination of drugs. The Laplace derivation of linear pharmacokinetic equations, use of computers in pharmacokinetics and advanced topics in preclinical and clinical pharmacokinetic are discussed. Emphasis is placed on pharmacokinetic/pharmacodynamic modelling. The course consists of a series of lectures, computer laboratory sessions, in-class practices and home assignments. *Prerequisite: MATH 1910 & 1920 Calculus I & II or equivalent courses; PMSC 4134*

SPAN 1011 Beginning Spanish for Health Care I (3 cr. hrs)

A study of the four language skills of speaking, listening, reading and writing, with an emphasis on vocabulary and cultural situations appropriate for health care professions. This course does not satisfy high school deficiencies for students enrolled in areas other than health care professions.

SPAN 1021 Beginning Spanish for Health Care II (3 cr. hrs)

A continuation of the study of the four language skills of speaking, listening, reading and writing, with an emphasis on vocabulary and cultural situations appropriate for health care professions. This course does not satisfy high school deficiencies for students enrolled in areas other than health care professions. *Prerequisite: SPAN 1011*

Approved Didactic Online Electives Offered thru Other Universities

PHA 505 Community Pharmacy Ownership (2 semester cr. hrs)

Offered through Mercer University College of Pharmacy and Health Sciences. This course is designed to provide the student with the information necessary to become a community pharmacy owner either through the establishment of a new pharmacy or the purchase of an existing pharmacy practice. The knowledge necessary for efficient and profitable management in layout and design, location analysis, evaluation of third party plans, and promotion are emphasized as well as the financial aspects of the development and implementation of innovative clinical services in the community setting. *NOTE: Registration is through Mercer University, and student must transfer credit to GCOP after grade is posted. Tuition is the student's responsibility. Prerequisite: Consultation with the Office of Academic Affairs prior to enrollment.*

PHARM 720 Introduction to Nuclear Pharmacy (2 cr. hrs)

Offered through The University of New Mexico Health Sciences Center College of Pharmacy. The purpose of this course is to provide an overview of nuclear pharmacy as a practice specialty. Participants will examine the basic scientific principles applicable to nuclear pharmacy and nuclear medicine; review the tasks routinely performed by a nuclear pharmacist and the regulatory requirements under which they operate; examine the contributions of the nuclear pharmacist and nuclear pharmacy to nuclear medicine professionals in the diagnosis and treatment of disease; and study the application of

radioactive tracer techniques used in the diagnosis and treatment of patients. *NOTE: Registration is through the University of New Mexico Health Sciences Center. UNM will issue certificate of completion to student with final score greater than 70%. Certificate serves as documentation for student to receive transfer credit. Prerequisite: Consultation with the Office of Academic Affairs*

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PharmD (1991) University of North Carolina Eshelman School of Pharmacy

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PharmD (2000) University of Tennessee Health Sciences Center College of Pharmacy

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PhD (2012) Purdue University

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College of Public Health

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