

MARYLAND HIGHER EDUCATION COMMISSION
Application for Initial Approval for Out-of-State Degree-Granting
Institutions to Operate in Maryland

Please Note: A separate application form must be completed and submitted with all supporting documentation for each proposed location in Maryland.

PROPOSED LOCATION IN MARYLAND.

Please provide the full mailing address. If a specific facility is yet to be identified, please provide as a minimum, the county or city in which you plan to operate. N/A

[If these programs/classes are to be offered at a military installation and the recruitment and enrollment of students is limited to active duty personnel, their dependents, or civilians employed at the installation, and if the institution waives its right to claim veterans' benefits for enrolled students, do not complete this application. Complete an Application for Exemption to COMAR 13B.02.01 instead.]

PROPOSED START DATE. Academic Year 2015-2016

Applications should be submitted at least 5 months prior to the proposed start date.

INSITUTION APPLYING FOR APPROVAL.	
Name of Institution:	Lake Erie College of Osteopathic Medicine
Web Address:	http://www.lecom.edu/
OPEID Code:	030908 (Erie: 03090800; Bradenton: 03090801; Seton Hill: 03090802)
<small>U.S. Department of Education, Office of Postsecondary Education, ID Code -- Title IV eligibility.</small>	
Chief Executives Officer:	Dr. John M. Ferretti, DO President/CEO
Mailing Address:	1858 West Grandview Blvd Erie, PA 16509
Telephone:	814-866-8130
Email:	hmckenzie@lecom.edu

Institutional Liaison: Name and title of the individual who will serve as liaison to the Maryland Higher Education Commission:	
Name:	Mathew Bateman, Ph.D., D.H.Ed.
Title:	Director of Institutional Planning, Assessment, Accreditation and Research
Mailing Address:	LECOM, 1858 W. Grandview Blvd., Erie, PA. 16509
Telephone:	814-866-8148
Email:	mbateman@lecom.edu

MAY 06 2015

***** CERTIFICATION *****

I hereby affirm that the answers given in this application and its attachments are accurate and complete and further agree to comply with the *Annotated Code of Maryland* and State regulations governing the operation of out-of-State degree-granting institutions (COMAR 13B.02.01).

4/27/15 Date Signature of Chief Executive Officer

Please Submit All Information To:

Maryland Higher Education Commission
Division of Planning and Academic Affairs
6 N. Liberty St., 10th Floor
Baltimore, Maryland 21201
acadprop@mhec.state.md.us
(410) 767-3268

A copy of these regulations can be found at the Maryland Higher Education Commission's web site www.mhec.state.md.us (under Academic Approval Process) along with an on-line application form.

I. SUPPORTING DOCUMENTATION.

Only a complete application can be acted upon. While separate application forms must be completed and submitted for each proposed location, the following Supporting Documentation needs to be included only once for the entire package of applications. CHECK EACH ITEM AS ATTACHED.

[X] Catalogs and Other Institutional Publications. COMAR 13B.02.01.20A(1)

Include one printed copy of the institution's home campus catalog or other publication (graduate and undergraduate as applicable) that contains information on: academic progress standards, curricular content of the proposed programs, student services information, credit for prior learning as well as credit for practica, clinical experience, internships, and cooperative work experiences. Please also provide copies of the awards to be granted.

[X] Application Fee. COMAR 13B.02.01.07D(2)

The institution shall submit a non-refundable application fee in the amount of (a) \$7,500 for up to two degree programs and (b) an additional \$850 for each degree program over two programs. The institution's check should be made payable to: Maryland Higher Education Commission.

[X] Accreditation. COMAR 13B.02.01.07D(3)(g)

Provide a copy of the most recent letter of approval (notification) from an organization recognized as an accrediting agency by the U.S. Department of Education. Along with your most recent notification of institutional accreditation, please provide evidence that you are in compliance with that organization's policies and procedures related to off-campus educational activities. If any of your proposed programs require program accreditation provide evidence of that accreditation.

- Registration as an Out-of-State Corporation. COMAR 13B.02.01.07D(3)(f)

To transact interstate business in Maryland, the institution must qualify with the State Department of Assessments and Taxation by making the certification required in the Corporations and Associations Article, §7-202, Annotated Code of Maryland. A public institution is not required to qualify as a foreign corporation. However, a business entity affiliated with a public institution or a private institution (profit or non-profit) must qualify as a foreign corporation. The Foreign Corporation Qualification Form may be obtained from the Maryland Department of Assessments and Taxation, Room 809, 301 West Preston Street, Baltimore, Maryland 21201 or on-line at: www.dat.state.md.us. Once qualified, the institution must provide a copy of the certificate of good standing issued by the State Department of Assessments and Taxation.

- Certificate of Compliance COMAR 13B.02.01.07D(3)(o) N/A

Please provide a certificate for each location for which you are seeking approval, indicating that the proposed facility has been inspected and is found in compliance with local and State ordinances pertaining to fire and safety. If this is not presently available, it may be submitted no later than 30 days prior to the start of classes.

- Board of Trustees Resolution of Financial Solvency COMAR 13B.02.01.07D(3)(e)

Please provide a resolution from your Board of Trustees addressed to the Secretary of Higher Education stating that your institution is financially solvent.

- Advertisements COMAR 13B.02.01.07D(3)(p)

Please provide copies of any advertisements in print format related to the proposed programs.

- Teach-out Plan COMAR 13B.02.01.07D(3)(j)(iv)

The institution must provide a copy of its teach-out plan allowing enrolled students to complete their programs if the institution decides to cease operation in Maryland.

II. APPLICATION QUESTIONNAIRE

This questionnaire, properly completed with supporting documentation, shall serve as an application for approval to operate in Maryland under the *Code of Maryland Regulations* (COMAR) 13B.02.01. It must be completed for each proposed location.

1. Programs.

Please enter below, or create an attachment (labeled "A-1: Programs") to this application with your responses to the following:

- (a) Provide a list of the proposed programs (or individual courses) to be offered at this location. An institution may apply to offer courses only if the full complement of courses comprise not more than 3 courses (or 9 credit hours) of a degree program. [See COMAR 13B.02.01.07D(5)] For each program/course provide the following information: (1) the full title of the program (or individual course); (2) the degree or certificate to be awarded; (3) the mode of instructional delivery; (4) the number of credit hours (semester or quarter); and (5) whether they are offered at the parent campus.

Program Title	Degree	Mode of Instruction	Total Credit Hours	Offered on Main Campus Yes / No
<i>Example: Organizational Management</i>	<i>M.S.</i>	<i>Classroom</i>	<i>36 sem</i>	<i>Yes</i>
<i>Example: BUS 101 Intro to Business Administration</i>		<i>Distance Ed.</i>	<i>3 sem</i>	<i>Yes</i>
See attachment A-1				

(b) If the information does not appear in the catalog or publication you submitted, provide (1) a description of the curriculum; (2) the objectives of each course; and (3) a course schedule for the proposed location.

See attachment A-1

(c) Please provide a brief description of the student population to be served by the proposed program.

See attachment A-1

2. Educational Need. Before the Commission may evaluate the readiness of an out-of-State institution to operate or award new degrees in the State, including the offerings of an instructional program or a degree level not previously approved, the institution shall present evidence demonstrating the educational need to establish operations, offer programs, and award the degrees in question in the State. In addition, the out-of-State institution shall demonstrate that the proposed program, for which the institution is making application, meets a critical and compelling regional or Statewide need and is consistent with the Maryland State Plan for Postsecondary Education. COMAR 13B.02.01.06A & C

INSTRUCTIONS. Please enter the requested information in the spaces provided below, or create an attachment (labeled "A-2: Educational Need") to this application with your responses to the following questions for each program.

(a) What critical and compelling Regional or Statewide (Maryland) need and demand do your proposed programs meet? In responding to this question provide documentation as indicated below:

(1) If the proposed programs serve occupational needs, present data on market demand and the availability of openings in the job market to be served by the new programs for which the institution is making application. This information may include workforce and employment projections prepared by the federal and State governments, the availability of graduates in the State or region, marketing studies done by the institution or others, and material from professional and trade associations. COMAR 13B.02.01.06E

See attachment A-2

(2) If the proposed programs serve societal needs (including the traditional liberal arts education), provide a description of how the proposed programs will enhance higher education in Maryland and contribute to society in general.

See attachment A-2

(b) If similar programs already exist in the State of Maryland, what are the similarities or differences in your program in terms of the degrees to be awarded, the areas of specialization, and the specific academic content of the programs?

See attachment A-2

(c) Is a Maryland employer sponsoring/supporting the application for the program(s) to be offered at this location? Yes No COMAR 02.01.07D(3)(q)

If yes, please attach a letter of support from the employer addressed to the Assistant Secretary, Planning and Academic Affairs. The letter should outline the employer's reasons for selecting the institution and its programs and state the benefits to the employees who participate in the program

(d) Will the programs/classes at this location be closed? [That is, only available to employees or members of the host site and not open to the general public]. Yes No

If yes, please supply a copy of a memorandum of understanding from the Maryland entity sponsoring your institution. The memorandum shall specify the institution is operating a closed-site and that the courses are offered solely for its own employees. COMAR 13B.02.01.07D(6)

(e) Will these programs/classes be offered in affiliation with a Maryland Regional Higher Education Center?

Yes No

If yes, please identify the Maryland Regional Higher Education Center and provide a copy of the Memorandum of Understanding or agreement. COMAR 13B.02.01.22

3. Administrative Staff. The out-of-State institution shall provide for an on-site administrative staff responsible for overall administrative operation of educational activities including counseling, advising, testing orientation, financial aid services, and maintenance of academic records. In addition to being responsible for the administration of the policies and procedures of the parent institution, the designated administrators are responsible for meeting the expectations set forth in this chapter [of the Regulatory Standards of the State of Maryland for Out-of-State Institutions]. The duties and size of the staff shall be adequate for the size of educational activities offered. COMAR 13B.02.01.15

INSTRUCTIONS: Please enter the requested information in the spaces provided below, or create an attachment (labeled "A-3: Administrative Staff") to this application with your responses to the following questions.

(a) How are you are planning to meet the above standard on Administrative Staff?

See attachment A-3

(b) Who will be assigned to carry-out each of these duties? Please include a curriculum vitae/resume for each administrator in the attachment to this application

See attachment A-3 and attached CVs

4. Faculty.

INSTRUCTIONS: Please enter the requested information in the spaces provided below, or create an attachment to this application (labeled "A-4: Faculty") with your responses to the following questions. If complete and precise information is unavailable at this time, please provide projected staffing information including the faculty member's status as full or part-time.

(a) List all faculty that are to teach in the first year (or cycle) of the proposed programs at this location. For each faculty member provide the following information: COMAR 13B.02.01.07D(3)(m)

- (1) the course(s) the faculty might soon teach;
- (2) the degrees the individual holds;
- (3) the degrees areas of specialization; and
- (4) whether or not the faculty member is full-time or part-time (adjunct) at your parent institution .

See attachment A-4 and attached CVs

(b) Please include a curriculum vitae/resume for each potential faculty member. For those faculty who are yet to be hired include a job description and minimal qualifications.

(c) **Full-time faculty member** is defined as an employee: "(a) whose primary professional responsibility is instruction, research, scholarship, or service; (b) who performs those functions normally expected of a full-time faculty member at an institution of higher education, including curriculum development, student advising, and institutional service; (c) who is employed on an annual or renewable contract of at least 9 months long that stipulates an annual salary; and (d) who is not employed full-time by another employer." COMAR 13B.02.01.03(10)

Will more than 1/3rd of the classes offered be taught by full-time faculty of the parent institution?

Yes No

Full-time Faculty Waiver. (See COMAR 13B.02.01.16E) If 1/3rd or less of the classes are taught by full-time faculty of the parent institution you will have to apply for a full-time faculty waiver. In order to obtain a waiver under the Regulations, please respond to the following:

- (1) Demonstrate that the unique role, scope, and mission of the institution require a waiver in order for the institution to operate.

(2) After making this demonstration the institution shall then provide the following:

- (i.) Designate by name the faculty members whose primary responsibility is instruction, scholarship, research or service who will perform the duties normally required of full-time faculty.

(ii.) Document that these designated faculty members substantially participate in the development or implementation of one or more of the following activities at the institution requesting the waiver: (A) Academic programs, (B) Professional Programs, (C) Research Programs, (D) Service Programs, (E) Admission or Admission policies, (F) Academic Advising, (G) Faculty Appointments, or (H) institutional governance.

(iii.) Document that the full time faculty, as a group, participate in all of the activities listed in (2)(ii.) above.

(iv.) Document that the designated faculty shall perform the requirements of full-time faculty under Section C of the regulations – i.e., at least one-third of the classes offered shall be taught by full-time faculty of the parent institution.

(3) **Documentation includes**, but is not limited to: (i) minutes of meetings; (ii) contractual obligations; or (iii) job descriptions.

(4) Your request will be considered at a regularly scheduled meeting of the Maryland Higher Education Commission.

5. Library Resources. Out-of-State Institutions offering programs or courses, or both, in Maryland, shall provide adequate and appropriate library resources within State boundaries and within reasonable distance of the instructional site. Usage statistics shall be kept to determine to what extent these resources are available and accessible. COMAR 13B.02.01.17A

INSTRUCTIONS: Please enter the requested information in the spaces provided below, or create an attachment (labeled "A-5: Library Resources") to this application with your responses to the following questions.

(a) How are you planning to meet this standard on Library Resources? Briefly describe the types of materials and titles that you will make available to your students and how they will access them. Will there be provision for bibliographic instruction and/or library orientation?

See attachment A-5

(b) **Library Waiver.** In extraordinary circumstances, an out-of-State institution may request a waiver of the library requirement. **Are you requesting such a waiver?** Yes No

If Yes, this request shall be considered at a regularly scheduled meeting of the Maryland Higher Education Commission. The waiver may be granted if justified by the institution demonstrating in this application the following:

(i) the specialized or technical nature of the institution's curriculum; or

(ii.) an executed contract or contracts with another library or libraries ensuring students adequate access to another appropriate collection either through location or through information technology.

6. **Student Services.** COMAR 13B.02.01.18 concerns student services and activities. These shall realistically reflect the stated objectives, purposes, and philosophy of the out-of-State institution. Further, an out-of-State institution shall ensure that all students have access to a well developed program of counseling, testing, advisement, orientation, financial aid, career development, and placement. The institution may determine the specific organization of services, as well as the resources and staffing provided, as long as provision for these services are made. Student activities that complement the instructional program are particularly encouraged. COMAR Section .18 also requires that the out-of-State credits, transcripts, graduates, and other essentials in accordance with standard practice. This includes the physical security and confidentiality of such records. The Section requires as well, a published statement of student rights, privileges, and responsibilities and the school's adherence to its student grievance procedures.

INSTRUCTIONS: Please enter the requested information in the spaces provided below, or create an attachment (labeled "A-6: Student Services") to this application with your responses to the following questions.

(a) How do you plan to implement the requirements for Student Services cited above?

See attachment A-6

(b) Regarding student records describe the security measures the institution takes to ensure the confidentiality, physical, and electronic security of your record-keeping system.

See attachment A-6

(c) Does the institution have a published statement of rights, privileges, and responsibilities of students?
 Yes No How will it make this available to its students at the proposed instructional site? If this statement is in the Catalog you submitted with the application, please indicate the page number: page 186. If not in the Catalog you submitted, please provide us with a copy of the statement.

(d) Does the institution have a published student grievance procedure? Yes No If this procedure is in the Catalog you submitted with the application, please indicate the page number 199. If not in the Catalog you submitted, please provide us with a copy of the grievance procedure.

7. **Facilities.** (See COMAR 13B.02.01.19). N/A

INSTRUCTIONS: Please enter the requested information in the spaces provided below, or create an attachment (labeled "A-7: Facilities") to this application with your responses to the following questions.

(a) Has a specific facility been identified? Yes No

(b) Has the proposed facility been inspected and approved for use as classroom/laboratory space and been found in compliance with local and State ordinances pertaining to fire and safety? Yes No

(1) If yes, please provide a copy of the Certificate of Compliance.

(2) If no, the Certificate of Compliance must be submitted at least 30 days prior to the start of classes.

(c) Describe any special instructional facilities and equipment (computers, audio-visual equipment, etc.) that will be used and available to students in this location.

(d) Describe what provisions are being made for periodic repair and maintenance of buildings and grounds. What measures are being taken for campus security and fire protection? If dangerous or toxic materials are being handled, what provisions are being made for safe storage, handling and disposal?

(e) Describe the office (and conference) space available to full and part-time faculty and administrators.

8. **Distance Education.** "Distance education" means course work for academic credit delivered by telecommunicated instruction to a physical space specifically reserved for the purpose of receiving the instruction, for example, a teleclassroom, and requires the payment of tuition or fees for the instruction. "Distance education" does not include telecommunicated instruction at the student's initiation via an individual personal computer. COMAR 13B.02.01.03(8). An institution operating in Maryland and delivering instruction in Maryland by distance education shall provide evidence to the Secretary of compliance with the standards of good practice found in COMAR 13B.02.01.21.

INSTRUCTIONS. Is the institution providing distance education as defined above? Yes No
If yes, please contact the staff at the Maryland Higher Education Commission for a copy of the Standards of Good Practice and provide evidence of compliance as an attachment (labeled "A-8: Distance Education") to this application.

MEDICINE

(a)

Item	Field	Info
(1)	Full title of the program (or individual course)	Doctor of Osteopathic Medicine
(2)	Degree or certificate to be awarded	D.O.
(3)	Mode of instructional delivery	Clinical Rotations
(4)	Number of credit hours (semester or quarter)	10 credit hours (rotation)
(5)	Whether they are offered at the parent campus	Offered at several other locations including Millcreek Community Hospital which is affiliated with LECOM

(b) See Academic Catalog and Student Handbook, Section 2.1 for description of curriculum.

(c) The student population to be served are students in the 3rd and 4th year of the 4 year program in their clinical rotations who have chosen elective rotations in MD.

PHARMACY

Program descriptions for Pharmacy are found in the LECOM Academic Catalog and Student Handbook.

Erie Campus, 3 year accelerated pathway (pg. 77-86)

Florida Bradenton Traditional 4 year pathway (pg. 87-99)

Four Year Distance Education pathway (pg. 99-109)

a.

Item	Field	Info
(1)	Full title of the program (or individual course)	Doctor of Pharmacy
(2)	Degree or certificate to be awarded	Pharm.D.
(3)	Mode of instructional delivery	The traditional and accelerated pathways are primarily taught in a lecture-based format. In addition, voice recorded slide presentations, active learning sessions via interactive class discussions, on campus learning via group work and laboratory session, and experiential learning in the community are also utilized. For Distant Education, the School utilizes technology to deliver a majority of the curriculum. Students will watch online presentations, participate in group discussions via GoToMeeting, and take secure exams via online proctors. The distance education students will also travel to Bradenton, FL each summer for hands-on learning activities as well as complete experiential rotations in the state that they live. Experiential rotations in all pathways make up roughly one-third of all curriculums.
(4)	Number of credit hours (semester or quarter)	See LECOM Academic Catalog and Student Handbook for program description: Erie Campus, 3 year accelerated pathway (pg. 77-86) <ul style="list-style-type: none"> • 89 credit hours of course work • 44 hours of pharmacy practice experiences Florida Bradenton Traditional 4 year pathway (pg. 87-99) <ul style="list-style-type: none"> • 85 hours of course work • 44 hours of pharmacy practice experiences Four Year Distance Education pathway (pg. 99-109) <ul style="list-style-type: none"> • 85 hours of course work

		<ul style="list-style-type: none">• 44 hours of pharmacy practice experiences
(5)	Whether they are offered at the parent campus	Coursework is offered on campus and online, and rotation sites are offered in the home states of Pennsylvania and Florida and elsewhere

- b. Information in publications submitted
- c. Pre-requisites for student entry into the program can be located in the student handbook and on the LECOM website.

MEDICINE

(a) According to the Maryland Workforce Study from 2008, there was a predicted shortage of physicians in the Maryland area. Excerpts from the report are included below:

"The study found that overall Maryland is 16 percent below the national average for number of physicians available for clinical practice. The most severe problems occur in rural parts of the state and will get much worse by 2015, based on the study's results. The biggest statewide gaps occur in Primary Care, Emergency Medicine, Anesthesiology, Hematology/Oncology, Thoracic Surgery and Vascular Surgery, Psychiatry, and Dermatology. The study also found Maryland has only a borderline supply of orthopedic surgeons.

The situation in Southern Maryland, Western Maryland, and the Eastern Shore is the most troubling. All three regions fall significantly below national levels in active practicing physicians. Southern Maryland already has critical shortages in 25 of the 30 physician categories (83.3%), Western Maryland 20 of 30 (66.7%), and the Eastern Shore 18 of 30 (60.0%)."

"By 2015, 32 percent of the current workforce is expected to retire. The current supply of general surgeons statewide now only meets 90 percent of what is needed; that shortage is projected to fall to 80 percent by 2015. Also by 2015, the supply of thoracic surgeons will be only half of what is necessary to meet demand."

"The number of residents trained at Maryland's hospitals who opt to practice in the state is insufficient to make up for this wave of retirements. Indeed, residency program directors indicate that the 52 percent of residents who now go on to practice in Maryland could fall to as low as 25 percent by 2015. Not nearly enough clinical practitioners will be moving into Maryland to offset these factors."

By permitting students to rotate through hospitals and clinics in Maryland, it increases the possibility of the students seeking residencies in the area and continuing to practice there. LECOM graduates pursue residencies in all specialties, but the majority of students enter Family Practice, Internal Medicine, and Emergency Medicine. LECOM currently enrolls 63 students from MD in the College of Medicine, with 20 of those students being in the first year. By allowing students to return home for rotations or give other students the opportunity do rotations with highly regarded physicians in particular fields, the state increases the odds that students will return to MD to practice.

(b) Other medical schools also offer rotations in MD, which are under the same or similar accreditation standards.

(c) No

(d) No

(e) No

PHARMACY

- a) According to the Bureau of Labor Statistics, the job outlook for pharmacists is expected to grow by 14% from 2012-2022 (<http://www.bls.gov/ooh/healthcare/pharmacists.htm#tab-6>). As the population ages, more individuals will need prescription medications. This is expected to increase the need for pharmacists. Additionally, as more individuals have health care coverage, more people will be filling their prescriptions as prescribed. According to the Maryland Department of Labor, Licensing, and Regulation, Maryland is expecting 1,868 openings between 2012 and 2022 (<http://www.dllr.state.md.us/lmi/iandoproj/occgrou29.shtml>). Furthermore, our Distance Education Pathway was designed to give students who are unable to move or attend classes on a full time basis, the opportunity to pursue their dream of becoming pharmacists. There is no other school in Maryland that offers this type of program and only one other school in the country.
- b) Other pharmacy schools also offer rotations in MD, which are under the same accreditation standards. There is no other school in MD that offers distance education.
- c) No
- d) No
- e) No

MEDICINE

(a) There are no onsite Administrative Staff in the State of Maryland. LECOM offers all students administrative services, including counseling, advising, financial aid services, and maintenance of academic records at the Pennsylvania and Florida locations. Students in Maryland have access to student services via email, phone, and/or online.

(b)

Name	Title	Department
Silvia M. Ferretti, DO	Provost, Vice President and Dean of Academic Affairs	College of Medicine
Anthony Ferretti, DO	Associate Dean of Clinical Education	College of Medicine
Regan Shabloski, DO	Assistant Dean of Clinical Education	College of Medicine
Dave Fried / Ronald Shively	Director of Student Affairs	Counseling and Advising
Bonney Crilley / Denay Coale-Hunter/Kristine Azzarello	Financial Aid Counselor	Financial Aid
Jeremy Sivillo	Registrar	Maintenance of Academic Records

(CVs attached to application)

PHARMACY

(a) There are no onsite Administrative Staff in the State of Maryland. LECOM offers all students administrative services, including counseling, advising, financial aid services, and maintenance of academic records at the Pennsylvania and Florida locations. Students in Maryland have access to student services via email, phone, and/or online.

(b)

Name	Title	Department
Rachel Ogden, PharmD, MS, CGP	Associate Dean of Accelerated Pathway	School of Pharmacy
Julie Wilkinson, PharmD, MS, BCPS	Associate Dean of the Traditional Pathway	School of Pharmacy
Katherine Tromp, PharmD	Director, Distance Education Pathway	School of Pharmacy
Mary Ray, PharmD / Laura Stevenson, PharmD	Director, Experiential Education	School of Pharmacy
Dave Fried / Ronald Shively	Director of Student Affairs	Counseling and Advising
Meaghen Dubé / Annette Shively	Admissions Coordinator	Orientation
Bonney Crilley / Denay Coale-Hunter	Financial Aid Counselor	Financial Aid
Hershey Bell, MD, MS, FAAFP	Dean, School of Pharmacy	School of Pharmacy
Priscilla Martin, MEd	Curriculum Specialist/Instructional Design	Test Administration – School of Pharmacy
Jeremy Sivillo	Registrar	Maintenance of Academic Records

(CVs attached to application)

MEDICINE

(a) Students will be selecting rotations for elective or family medicine, so it is impossible to provide resumes for each physician. The Office of Clinical Education monitors all rotations and the physicians must meet specific guidelines to be preceptors. Anthony Ferretti, DO, Associate Dean of Clinical Education and Regan Shabloski, DO, Assistant Dean of Clinical Education review criteria for preceptors and approve selection of sites for rotations for electives and family practice.

(b) N/A

(c) N/A

PHARMACY

(a) Faculty information is provided below. All are full-time.

Faculty Member	Specialization	Courses in Curriculum
Kenneth Bauer, BS, PharmD, PhD	Pharmacy Practice	Clinical Pharmacokinetics
Hershey S. Bell, MD, MS	Pharmacy Practice	Research Methods and Epidemiology
	Medical Education	Clinical Lab and Physical Assessment
Kimberly Burns, BS, JD	Pharmacy Law	Pharmacy Law
Marcus Campbell, AS, PharmD	Pharmacy Practice	Drug Literature Evaluation
Thomas Corso, PhD	Neuroscience/Biochemistry	Biochemistry
Sachin Devi, BPharm, PhD	Pharmacology	Pharmacology
Sarah Dombrowski, PharmD	Pharmacy Practice	Pharmacy Drugs and Healthcare
Fallon Enfinger, AA, PharmD	Pharmacy Practice	Pharmacotherapeutics
Thomas Gant, PhD	Pharmacology	Med Chem/Pcol
Deepak Gupta, BS, MS, PhD	Pharmacology	Medicinal Chemistry
Randall Heemer, BS, MBA, PharmD	Pharmacy Practice	Pharmacotherapeutics
Zachery Heeter, PharmD	Pharmacy Practice	Pharmacotherapeutics
Saber Hussein, PhD	Microbiology	Microbiology
Sunil Jambhekar, BPharm, PhD	Pharmaceutical Sciences	Basic Pharmacokinetics
Heather Jones, PhD	Physiology	Anatomy and Physiology
Kathleen Kelly, PharmD	Pharmacy Practice	Pharmacotherapeutics
Seher Khan, PhD	Pharmacology	Med Chem/Pcol
Abbey Kryshiak, PharmD	Pharmacy Practice	Pharmacotherapeutics
Janene Madras, BS, PharmD	Pharmacy Practice	Pharmacotherapeutics
Inna Miroshnyk, PhD	Pharmaceutical Sciences	Pharmaceutics II
Michael Mueller, BS, PhD	Pharmacy Practice	Communications
Jeffrey Myers, AB, JD	Pharmacy Law	Pharmacy Law
Rachel Ogden, BS, MS, PharmD	Pharmacy Practice	Pharmacy Drugs and Healthcare
	Medical Education	
Erica Pascale, PharmD	Pharmacy Practice	PharmD Seminar
Nina Pavuluri, BPharm, PhD	Pharmaceutical Sciences	Pharmaceutics I, II
Stephanie Peshek, BS, PharmD, MBA, MS	Pharmacy Practice	Pharmacoeconomics & Outcomes Assessment
		Management & Patient Safety
Mitchelle Rodriguez, PharmD	Pharmacy Practice	Clinical Skills
Kathryn Samal, AA, BS, PharmD	Pharmacy Practice	Pharmacogenomics
Maryann Scholl, PharmD	Pharmacy Practice	Pharmacotherapeutics
Brian Simpkins, PharmD	Pharmacy Practice	Clinical Pharmacokinetics
McHardy Smith, BA, PhD	Pharmacology	Pharmacology

Faculty Member	Specialization	Courses in Curriculum
Laura Stevenson, MS, PharmD	Experiential Education	Drug Information
Bojana Stevich-Heemer, BS, MS, PharmD	Pharmacy Practice	Pharmacogenomics
Ashley Stull, BS, PharmD	Pharmacy Practice	Pharmacy Calculations
Katherine Tromp, BS, PharmD	Pharmacy Practice	Pharmacist Provided Care I, II
Ruhi Ubale, PhD	Pharmaceutical Sciences	Pharmaceutics II
Alejandro Vazquez, BS, PharmD	Pharmacy Practice	PharmD Seminar I, II
Antonia Vilella, BS, PharmD	Pharmacy Practice	Clinical Pharmacokinetics
Ryan Wargo, PharmD	Pharmacy Practice	Drug Information
Teri West, PharmD	Pharmacy Practice	Pharmacotherapeutics
Julie Wilkinson, PharmD, MS	Pharmacy Practice	Pharmacy, Drugs, and Health Care
Rebecca Wise, BS, MA, PharmD	Pharmacy Practice	Pharmacy Management
Tatiana Yero, BS, PharmD	Pharmacy Practice	Pharmacotherapeutics

Rotations Sites:

Students make selections for their required pharmacy practice experience rotations through the Office of Experiential Education. The office monitors all rotations and the preceptors or adjunct faculty must meet specific guidelines. Mary Ray, Pharm.D. and Laura Stevenson, Pharm.D., Directors of Experiential Education review criteria for preceptors and approve selection of sites for rotations. LECOM School of Pharmacy non-salaried faculty appointment criteria is listed below.

LECOM School of Pharmacy

Non-Salaried Faculty Appointment Criteria

Positions

Adjunct Instructor

- This initial rank shall be given to those pharmacists (B.S. Pharm or PharmD) who have not demonstrated any past teaching/precepting experience. All non-pharmacist faculty (Ph.D., MD, DO, etc.) may hold this appointment.

Adjunct Assistant Professor

- Requires application as outlined below.
- Has served as a preceptor for at least 2 years
- Agrees to provide annual availability for student rotations.
- Precepts, on average, a minimum of 3 students annually. (Note that if student load falls below an average of 3 students annually, the individual may still maintain his/her

appointment, as long as availability for a minimum of 3 students annually was provided.) Exception to student load will be considered if the candidate provides > 2 hours of didactic teaching within the curriculum or coordinates an elective course.

- Demonstrates evidence of effective teaching and student interaction.
- Demonstrates commitment to profession by holding membership in at least one national professional organization and their state association.

Adjunct Associate Professor

- Required application as outlined below.
- Has served as a preceptor for at least 6 years.
- Demonstrates leadership and contributes to the professional practice and teaching beyond his/her practice site, with recognition by peers at the local or state level.
- Actively participates in professional organizations by attending meetings and, preferably, being involved with councils/committees.
- Presentation or active participation at local and regional continuing education programs.
- Demonstrates further commitment to the College's teaching mission by engaging in one or more of the following:
 1. Serves on a School of Pharmacy committee or task force.
 2. Participates in student recruitment
 3. Publications or other scholarly endeavors
 4. Precepts, on average, 5 or more students annually

(b) CVs of full time faculty attached to application

(c) Yes, more than 1/3 of the classes offered to be taught will be by full-time faculty of the parent institution

(a)

Learning Resource Center

The Erie Campus Learning Resource Center (LRC) was completed and opened in May 2002. The LRC occupies 16,000 square feet on the third floor. The LRC consists of a main reading/computing area, four group study rooms and a work area for LRC staff and administration. The group study rooms are designated for student use and are equipped with whiteboards and A/V equipment. The LRC seats over 300 users in a variety of configurations ranging from table, study carrels to soft seating. Wireless connectivity is available throughout the entire LRC enabling users to access the LECOM network and the Internet utilizing high-speed connectivity. The LRC maintains hardcopy monographs, periodicals, AV software and electronic texts and journals. The LRC's computers access electronic resources from the internet and through local file servers.

The LRC subscribes to 175 periodical titles in hard copy and approximately 1,050 in electronic format. The collection emphasis is osteopathic medicine, family medicine, internal medicine, orthopedic surgery and pharmacology. The collection has approximately 12,000 volumes and contains the most current editions of textbooks and monographs directly related to the curriculum, the practice of medicine, pharmacy education and pharmacy practice.

The Erie Campus LRC has nineteen (19) computers for student use. The machines are used to access the Internet (E-mail and Web browsing), and the web based medical databases. Four (4) laser-jet printers are available for student printing. Two (2) copy machines using a vend-a-card system are available for use in the LRC. The LRC offers two (2) video-cassette recorders, two Laserdisc players and nine DVD players. All are available to the faculty and students to view the respective resources.

The Erie LRC is staffed 16 hours daily by three (3) degreed M.L.S./M.L.I.S. professionals, one (1) library technician and two (2) library weekend/evening assistants. LRC administration is housed at the Erie campus as are centralized processing of materials, cataloging and document delivery (interlibrary loan).

The Bradenton Campus Learning Resource Center (LRC) was completed and opened in August 2004. The LRC occupies 7,446 square feet on the ground floor. The LRC consists of a main reading/computing area, and a work area/office for LRC staff and administration. The LRC currently seats 224 users in a variety of configurations ranging from table, study carrels to soft seating. All access to the LECOM network and the Internet is available by utilizing high-speed wireless connectivity. The LRC maintains hardcopy monographs, periodicals, AV software and electronic texts and journals. The LRC's computers access electronic resources from the internet and networked local resources.

The Bradenton LRC has eight (8) computers, dedicated to the Internet (E-mail and Web browsing) and to access the web-based medical databases. Laser-jet printers are available for student printing. Two (2) copy machines using a vend-a-card system are available for use in the LRC. The LRC offers videocassette recorders and DVD players. All are available to the faculty and students to view the respective resources.

The Bradenton LRC is staffed 105 hours/week by two degreed M.L.S./M.L.I.S. professionals, and student

workers.

The Seton Hill Campus Learning Resource Center (LRC) was completed and opened in August 2009. The LRC occupies 2,450 square feet in the Seton Hill University Reeve's Library ground floor. The LRC consists of a main reading/computing area. The LRC at Seton Hill enjoys a materials collection that is of the highest currency. LRC policy ensures that all the essential editions of appropriate texts and learning resources are supplied to the campus. The LRC seats over 62 users in a variety of configurations ranging from table and study carrels to soft seating. Access to the LECOM network and the Internet is available by utilizing high-speed, wireless connectivity. The LRC maintains hardcopy monographs, and electronic texts and journals. The LRC's computers access electronic resources from the internet and networked file servers.

The Seton Hill LRC has six (6) computers dedicated to the web based medical databases. Laser-jet printers are available for student printing from their laptops. A copy machine using a vend-a-card system is available for use in the LRC.

The Seton Hill LRC is staffed 84 hours a week during the academic year with hours adjusted during the summer break. The LRC is staffed by one (1) full-time MLIS degreed librarian and one library assistant. LRC administration makes daily contact with the staff, monthly site visits and is constantly evaluating the services and staffing at this site. Students are also able to utilize the library resources of Seton Hill College during its regularly scheduled hours of operation.

The School of Dental Medicine Campus Learning Resource Center (LRC) was opened in July 2012. The LRC occupies 31,000 square feet on the ground floor and consists of a main reading and computing area, twenty-one study rooms (Problem Based Learning rooms) and a work/office area for the LRC staff. When the Problem Based Learning groups are not in session, students can use the rooms for group study. Twelve of the study rooms contain HDMI capable televisions. The LRC seats over 288 users in a variety of table and soft-seating configurations. All access to the LECOM network and the Internet utilizes high-speed wireless connectivity. The LRC maintains hardcopy monographs and periodicals.

The School of Dental Medicine students have remote access to a breadth of resources offered through the LECOM Main Campus in Erie, PA. Access is provided to the Learning Resource Center webpage through the LECOM Portal web page. All students can gain access to full text journals, E-Books, drug information and point-of-care databases. Students also have access to 84 Dental and Medical E-Book titles through the Vital Source program. This program allows users to access the information from several different devices such as iPads and laptop computers. The textbooks can be downloaded to the device and used anytime and anywhere. All required dental textbooks are available through Vital Source. The library services listed on the LRC webpage include Inter-library loan services, librarian-mediated searches, and reference assistance. These services are available to all LECOM students.

The campus LRC has two PCs with Internet access for student use. These machines facilitate access to the school's Internet-based resources. The LRC has a photocopier for students to use. Students can use it to print PDF documents from their USB drives or scan documents to their email addresses.

Attachment A-5: Library Resources

The School of Dental Medicine LRC is staffed by two professional librarians who have M.L.S./M.L.I.S. degrees, a Library Assistant and student workers. The LRC is open 16 hours a day, from 7:00 a.m. to 11:00 p.m., seven days a week.

Electronic Resources

All campus LRC sites use a consolidated public access catalog, circulation system, serial control, and collection maintenance. Weekly backups of resource and users data are uploaded to a remote server for disaster recovery. The front end of the online public access catalog (OPAC) is ported to the LECOM web portal for use by all authorized users.

The LECOM LRC portal, available on local LRC computers, is also accessible from anywhere, anytime by all LECOM authorized users. This enables students to get essential learning information from campus, home or on clinical rotation. The electronic databases link is prominently displayed on the portal, with a description of each resource. Links are installed on the LRC portal to request specific information including document delivery, advanced research assistance and even system user questions. Staff respond upon notification and, in the case of resource use questions, will telephone the student and walk the student through the procedures to access the needed clinical information. The uniformity of service guarantees that users will obtain the answers they need regardless of which campus or staff member they contact, reinforcing the LRC goal of providing seamless information through "One LECOM."

Library and information resources are directly related to the academic mission of the College of Medicine and the School of Pharmacy. Classroom notes are available on the LECOM web site as are gateways to the LRC holdings of books and periodicals. Notes may be downloaded as students need them and LRC holdings can be electronically browsed at the student's convenience. Communication with information professionals is openly promoted. Students, faculty and staff can maintain open dialogue with the LRC staff regarding resource location, placing a hold on materials, reference queries, etc.

In addition to the College of Medicine and the School of Pharmacy, the LRC extends the breadth of its services to the students in the Master of Science in Medical Education program, the Lake Erie Consortium for Osteopathic Medical Training (LECOMT), and, in conjunction with the Millcreek Community Hospital Library, Medical Associates of Erie and the Millcreek Community Hospital house staff.

LRC support is provided for students on clinical rotation through e-mail, telephone, fax and express delivery service. Students on rotation can utilize electronic resources through the LRC web page. Physical access to the LRCs on each campus is available during the regular operating hours. Internet access is always available. Interlibrary loan service is used for items not available from the LRC's collection. Service is through the National Network of Medical Libraries utilizing DOCLINE, e-mail, fax and scan to e-mail technology.

Attachment A-5: Library Resources

During orientation, students are introduced to the library facility and its services. Students are given a tour of the facility to explain the location of books and serials and inform them of available computer resources. A short lecture/presentation is presented to them by the LRC Director or the Associate Health Science Librarians to describe the library services and circulation policies.

The Associate Health Science Librarians instruct students on basic Medline searching as well and provide instruction at "point of use" utilizing electronic resources available in the LRC. System personnel provide a lecture on the use of the student network, the structure of student information on the web, how to navigate the web pages to curricular information, financial aid and LRC resources.

LRC Cooperative Agreements

The LRC provides access to additional print resources through formal agreements with library network organizations and institutions. Its network memberships provide interlibrary loan and document delivery services through:

National Network of Libraries of Medicine

Northwest Interlibrary Cooperative of Pennsylvania (NICOP)

Pittsburgh and Basic Health Sciences Library Consortium (PBHSL, BHSL) LYRASIS, a multi-state library consortium

These organizations represent many health science and multi-type libraries. Participation by LECOM provides faculty and students with access to books and journals including all journals indexed in MEDLINE, discounted resources, OCLC access and advance CE opportunities for the LRC staff.

Resources

Databases accessible through the LECOM Learning Resource Center

1. **MEDLINE** - through Ovid - The LECOM LRC offers access to Medline, the National Library of Medicine's premier biomedical bibliographic database, through the Ovid interface. Users are able to formulate their own search strategies and retrieve citations and abstracts. The Ovid Core Biomedical Collection I, II, III, & IV provides access to 65 full-text medical journals which can be searched and printed.
2. **UpToDate** - is an online medical reference designed to answer questions at the point of care. It contains 8,000+ topic reviews in 13 specialties, plus drug information and interactions. Content is authored by a faculty of esteemed physicians, and is peer-reviewed. Updates are published three (3) times a year.
3. **DynaMed** - is a clinical reference database created by a physician for professionals

for use at the “point of care.” With clinically-organized summaries for nearly 2,000 topics, DynaMed is an evidence based reference shown to answer most clinical questions during practice. DynaMed is updated daily and monitors the content of over 500 medical journals and systematic evidence review databases.

4. **StatRef** - is an electronic medical library that enables users to cross search 25 medical textbooks such as ACS Medicine, Danforth’s Obstetrics and Gynecology, Essentials of Musculoskeletal Care and the Merck Manual of Diagnosis & Therapy.

5. **Lexi-Comp** - is a web based drug information database providing content in the following areas: Drug information and identification, natural products, poisoning and toxicology, laboratory and diagnostic tests and infectious diseases. The database allows the user to query a database of 3,000 images of drugs by form, shape, color and markings. A drug interaction analysis program is also available.

6. **Ebsco Host** - is a collection of databases that allow searching of medical related literature. There are several searchable databases, all containing access to full-text titles that students can search separately or concurrently. These databases include:

Basic Biomedical Reference Collection – Designed for doctors, students, and clinical specialists, this database provides full text articles from over 100 journals in a variety of specialties.

Nursing and Allied Health Collection – Provides full text for over 100 journals in covering the areas of nursing, biomedicine, health sciences, consumer health and allied health disciplines.

Psychology and Behavioral Science Collection – A comprehensive database covering topics in emotional and behavioral characteristics, psychiatry and psychology, mental processes, anthropology and observational and experimental methods. This is a large full-text database, offering PDF coverage for more than 500 noted journals.

Health Business Full Text – Provides full text coverage for nearly 130 journals. Coverage includes topics such as health care regulation, health care facilities, staffing finance and more.

CINAHL – An authoritative resource for nursing and allied health professionals, students, educators, and researchers. This database provides indexing for over 1,700 current nursing and allied health journals and publications dating back to 1982, totaling over one million records.

MEDLINE – Patrons can access abstracts from over 4,600 biomedical journals in this authoritative medical information database created by the National Library of Medicine.

7. **EMBASE & IPA** - through Ovid - The EMBASE Drugs and Pharmacology and International Pharmaceutical Abstracts (IPA) databases are also accessible through Ovid. EMBASE indexes literature from 1991 to present, and is known for its international scope and timely indepth indexing. *IPA* indexing is from 1980 to present. Abstracts cover the entire spectrum of drug therapy and pharmaceutical information, including CAS Registry numbers and a therapeutic classification for drugs.

8. **Evidence Based Medicine Reviews** - through Ovid - A resource in the evidence based medicine movement that combines 4 EBM resources in a single fully-searchable database.
 - a. *Cochrane Database of Systematic Reviews* - Consists of experts in over 40 clinical specialties who authoritatively review hundreds of studies in their areas. These reviews allow clinicians to get answers to their most commonly asked questions based on analysis of the available medical literature.
 - b. *Database of Abstracts of Reviews of Effectiveness* - Access to selected systematic reviews on the effectiveness of clinical interventions and policies.
 - c. *ACP Journal Club* - Reviews of journal articles
 - d. *Definitive Controlled Trials* - Contains over 300,000 bibliographic references to controlled trials in health care.

9. **Natural Standard** - is a leading authority on Integrative Medicine. It aggregates and synthesizes data on integrative therapies. The information is evidence-based and peer- reviewed. The database provides objective, reliable information that aids clinicians, patients, students and healthcare institutions make informed therapeutic decisions.

10. **WEB OPAC** - The LECOM Online Public Access Catalog contains all library holdings from the Erie, Bradenton and Seton Hill campuses. Its search engine allows patrons to browse the collection or perform advanced searches using title, author, subject, and/or keywords.

Journal Holdings - There are two links for journals on the LECOM LRC webpage.

One is for the entire print journal collection housed in the LRC. The other is for electronic journal access through the A to Z alphabetical listing.

Databases accessible on LECOM campus only (Erie, Bradenton and Seton Hill)

MICROMEDEX Healthcare Series - Thomson's Micromedex Healthcare Series provides a wide range of databases to meet the needs of healthcare professionals, including information related to drugs, acute care, toxicology and patient information. The database enables searches for summaries and detailed monographs for drugs, diseases, alternative medicine, toxicology management, reproductive risks and emergency care. Its multi-layered informational databases include:

- Dosing and therapeutic tools
- Drug Reax – Covers interactions and allergic reactions
- Identidex – Presents physical descriptions of drugs
- IV index – Reports physical compatibility of 145 commonly used parenteral medications
- Martindale – The complete drug index
- PDR – Supplies information for over 2300 prescription drugs
- Complementary & Alternative medicine information – Presents several databases covering herbal medicines and dietary supplements
- Resources available on the LRC's computers

(b) No

Student Services

(a)

LECOM provides a full array of student services at all locations and for distance education students. Academic counseling, academic advisement and career counseling are provided to every student through the assignment of a faculty adviser. Faculty also have an open door policy and are available to meet with students with or without an appointment. Additionally academic administrators and student affairs administrators are also available with career counseling assistance.

The Office of Behavioral Health provides personal counseling to all students in areas of personal adjustment, study skills, time management, stress management and other topics. As needed, referral is also available to appropriate professional providers for additional short term and long term therapy.

All entering students are provided an orientation program at the outset of matriculation, with additional administrative updates throughout student enrollment. Orientation offers an introduction to all institutional guidelines, procedures, regulations and expectations, in addition to all administrative and student service areas.

The financial aid office provides multiple presentations to new and continuing students on policies, procedures and available funding sources, in addition to entrance and exit counseling on debt management. Financial aid updates are also provided in the campus electronic newsletter, The Pulse, published every other month.

Career information and advising is provided throughout enrollment by the various academic programs as well as Student Affairs, and through outside presenters sponsored by various student clubs and organizations. In addition, for medical students, guidance and advisement is provided through the final two years with regard to the residency match program, and specific assistance provided in securing a residency.

For distance education students, services are provided through the LECOM portal the LECOM.edu website, through email and telephone contact and through period planned sessions on campus. For example, the Distance Education pathway in the School of Pharmacy brings DE students to campus for the first week of the program and again later the following summer between first and second year.

(b)

Hard copies of student records from the admissions process are kept in locked files in the Student Affairs Office for one year. They are later moved to storage and kept for one additional year. Financial aid records in paper form are maintained for seven years before shredding and kept in locked storage. Immunization and physical records are maintained through graduation and then shredded. All paper files are maintained in secure locations with access limited to authorized personnel only.

Our electronic student records that are contained within our Student Information System (SIS) are protected on many levels.

- 1) Physical access to the SIS
 - a. Access to the LECOM buildings is restricted by a key card access system.
 - b. Access to servers is restricted to authorized personnel only. Servers are off-site in a locked room with fire suppression.
 - c. Employee computers are in restricted areas that have locking doors.
 - 2) Remote access to the SIS servers is restricted to only authorized IT personnel.
 - 3) Logical access to the SIS
 - a. Access is secured with a User ID and Password that is issued by IT to authorized users.
 - b. Those accounts are disabled upon employee resignation or termination.
 - c. The software used to access the SIS is only installed for those approved users.
 - d. Training on the SIS software is provided to new users.
 - e. Employees' computers are set to lock after an idle period.
 - f. Most student data changes are auditable via a change tracking log.
 - 4) SIS backups
 - a. Data files are backed up hourly.
 - b. Data files are moved off-site nightly.
 - c. Backup files are tested twice monthly.
- (c) Yes. Students are informed at orientation of the content and website location of the Academic Catalog and Student Handbook. In addition, all students receive email notification of the document each year with website link to the document. Page 186.
- (d) Yes. Page 199.

Distance Education

The institution provides for a distance education pharmacy program. Below are the Standards of Good Practice, with evidence of compliance.

.21 Instruction Delivered by Distance Education.

A. An out-of-State institution operating in Maryland and delivering instruction in Maryland by distance education shall provide evidence to the Secretary of compliance with the standards of good practice in §B of this regulation.

B. Standards of Good Practice for Distance Education.

(1) Curriculum and Instruction.

(a) A program of study shall be developed by a team of faculty, administrators, and technologists.

Information on this has been provided throughout application.

(b) A program of study shall result in learning outcomes appropriate to the rigor and breadth of the degree program offered.

Learning outcomes for the distant education is the same as the other pathways for the program and provided throughout documents provided in application. The unique aspect to the distance education pathway is the program that was developed to help foster the development of professional identity. This program includes finding a mentor in the students' local area, completing drug information assignments, performing community service in the students' local area, and a series of sessions during the live summer session that are directed towards areas of professionalization (ethics, networking, service, etc.).

(c) A degree program delivered by distance education shall be coherent and complete.

The distance education program was developed using the same curriculum as our Traditional 4-year live pathway. This program is approved by our accrediting body, Accreditation Council for Pharmacy Education (ACPE).

(d) A program shall provide for appropriate real-time or delayed interaction between faculty and students.

The program uses GoToMeeting for synchronous learning sessions. There may be up to 9 hours of learning done in this manner each week. Asynchronous learning is done through a variety of mechanisms including interactive lectures that are recorded using Brainshark, an interactive asynchronous technology using video, voice-over, student interaction via questioning, surveys, and polls, and monitoring of student engagement via sophisticated reporting mechanisms. The students in

the distance education pathway will attend live sessions in Bradenton, Florida for 1-3 weeks each summer after the first three years of the program.

(e) Qualified faculty shall provide appropriate oversight of the program offered.

The distance education program is taught by the same faculty that teach in the LECOM School of Pharmacy programs in Erie, PA and Bradenton, FL. All three pathways are approved by the accrediting body, Accreditation Council for Pharmacy Education (ACPE). This accrediting body monitors to make certain that there are qualified faculty to oversee and deliver the program. Additional faculty are being hired to maintain the recommended student:faculty ratios for the school overall.

(f) Faculty members in appropriate disciplines shall participate in the design and planning of programs and courses to be delivered by distance learning.

Again, the distance education program is taught by the same faculty that teach in the LECOM School of Pharmacy programs in Erie, PA and Bradenton, FL. All three pathways are approved by the accrediting body, Accreditation Council for Pharmacy Education (ACPE). This accrediting body monitors to make certain that there are qualified faculty to oversee and deliver the program. Dr. Katherine Tromp has been appointed as the Director of the Distance Education pathway to assure appropriate design and planning of this pathway relative to the needs of distance education learners. A fully dedicated instructional designer/curriculum specialist, who works as a part of the institution's instructional design team, also has been appointed.

(2) Role and Mission.

(a) The program shall be consistent with the institution's mission.

The LECOM mission is "The mission of the Lake Erie College of Osteopathic Medicine is to prepare students to become osteopathic physicians, pharmacy practitioners, and dentists through program of excellence in education, research, clinical care, and community service to enhance the quality of life through improved health for all humanity. The professional programs are dedicated to serve all students through innovative curriculum and the development of postdoctoral education and interprofessional experiences."

The distance education program operates consistent with this mission in our goal to spread healthcare to all of humanity and through an innovative curriculum.

(b) Review and approval processes shall ensure the appropriateness of the technology being used to meet a program's objectives.

The IT department is integrally involved in the selection of hardware and software used in the distance education pathway. Meetings between IT leadership and School of Pharmacy leadership occur regularly to make sure the needs of the program are being met with the most appropriate technology for our needs that best assure programmatic outcomes.

(3) Faculty Support.

(a) Principles of good practice for teaching in a distance learning format shall be developed and maintained by the faculty.

Ongoing education is done to help guide the faculty on how to teach in this unique environment. A team of instructional designers meet regularly to share best practices across all of LECOM's distance education programs. One instructional designer is specifically devoted to the School of Pharmacy Distance Education Pathway. A rubric, based on the Quality Matters principles, will be used to structure the courses in the most effective manner possible.

(b) A program shall provide faculty support services specifically related to teaching via distance education.

Faculty have access to a team of instructional designers and IT support staff to help them deliver the curriculum. They also have the support of their administration and regular faculty development to help them succeed in teaching in this environment.

(c) The program shall provide training for faculty who teach via the use of technology.

Faculty have access to a team of instructional designers and IT support staff to help them deliver the curriculum. They also have the support of their administration and continuous faculty development to help them succeed in teaching in this environment. Training is done continuously to ensure that all faculty are able to utilize all aspects of the technology to their highest potential. The technologies used in the program (Brainshark, GoToMeeting, ExamSoft, etc) all have extensive training available.

(4) Resources for Learning. A program shall ensure that appropriate learning resources are available to students.

Learning resources are made available to the students through our Learning Management System (LMS), Jenzabar. Students are able to access all of the learning resources necessary for the courses including interactive presentations via Brainshark, supplemental readings, discussion boards, and more. Additionally, the library has a multitude of resources that are available electronically. Please see attachment on library resources.

(5) Students and Student Services.

(a) A program shall provide students with clear, complete, and timely information on the:

- (i) Curriculum;
- (ii) Course and degree requirements;
- (iii) Nature of faculty/student interaction;
- (iv) Assumptions about technology competence and skills;
- (v) Technical equipment requirements;

(vi) Availability of academic support services and financial aid resources; and

(vii) Costs and payment policies.

LECOM has a robust learning management system, Jenzabar, which enables us to rollout information to students and faculty in real-time including items such as the exam schedule, academic calendar, courses, etc. Additionally, the LECOM website, www.lecom.edu, provides up to date information about financial aid, technical equipment requirements, and much more.

(b) Enrolled students shall have reasonable and adequate access to the range of student services to support their learning.

Services at LECOM are institutionalized and are provided in the same manner for all students in all degree programs. This includes behavioral support services and a robust advising and mentoring program.

(c) Accepted students shall have the background, knowledge, and technical skills needed to undertake the program.

The distance education pathway follows the same strict admissions criteria as set for our previous PharmD pathways in Erie, PA and Bradenton, FL. In addition, the distance education pathway requires the students to write an essay to explain why they feel like the Distance Education pathway is the best pathway for them to complete a PharmD degree in. Our aim is to accept students that could not complete a PharmD education in other pathways.

(d) Advertising, recruiting, and admissions materials shall clearly and accurately represent the program and the services available.

Advertising, recruiting, and admissions materials are developed institutionally. The marketing department works to make sure only accurate and complete materials are circulated.

(6) Commitment to Support.

(a) Policies for faculty evaluation shall include appropriate consideration of teaching and scholarly activities related to programs offered through distance learning.

Detailed annual evaluations are done that include teaching and scholarly activity discussions. Student evaluations are completed at the end of each course to help in guiding faculty towards improvements.

(b) An institution shall demonstrate a commitment to ongoing support, both financial and technical, and to a continuation of the program for a period sufficient to enable students to complete a degree/certificate.

This is demonstrated via our accreditation status with ACPE.

(7) Evaluation and Assessment.

(a) An institution shall evaluate the program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost effectiveness.

Our Assistant Dean of Assessment and the Assessment Committee work to continuously evaluate the program's effectiveness and compare it to our other two pathways to make sure that all three of them are equivalent.

(b) An institution shall provide for assessment and documentation of student achievement in each course and at the completion of the program.

Students are graded on an "A", "B", and "C" grading scale at the end of each semester. At the completion of the program, students that have met the requirements for graduation will receive a PharmD degree.



Middle States Commission on Higher Education

3624 Market Street, Philadelphia, PA 19104-2680. Tel: 267-284-5000. Fax: 215-662-5501
www.msche.org

March 24, 2014

Dr. John M. Ferretti
President
Lake Erie College of Osteopathic Medicine
1858 West Grandview Blvd.
Erie, PA 16509

Dear Dr. Ferretti:

This letter acknowledges that Lake Erie College of Osteopathic Medicine, located in Erie, PA, is accredited by the Middle States Commission on Higher Education. The Middle States Commission on Higher Education, one of seven regional accrediting organizations in the United States, is recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA). MSCHE examines and affirms accreditation for each of its member institutions as a whole, rather than the specific programs within the institution.

Lake Erie College of Osteopathic Medicine was first accredited by MSCHE in 2006. Its accreditation was last reaffirmed on November 15, 2012. Lake Erie College of Osteopathic Medicine's next reaffirmation of accreditation is scheduled for 2017.

Enclosed, please find a copy of Lake Erie College of Osteopathic Medicine's current Statement of Accreditation Status, which indicates the level of degrees and the instructional locations the college has been approved to offer. Although individual credit and non-credit bearing programs are not listed on the Statement of Accreditation Status, all of the institution's offerings are reviewed as part of its reaffirmation and therefore are included within the scope of Lake Erie College of Osteopathic Medicine's accreditation.

Should you have any further questions, please feel free to contact me at 267-284-5029 or via e-mail at rschneider@msche.org.

Sincerely,

Robert A. Schneider, Ph.D.
Senior Vice President

RAS/deb

Enclosure

Dr. Mathew Bateman, Director of Institutional Planning, Assessment, Accreditation and Research



MIDDLE STATES COMMISSION ON HIGHER EDUCATION
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STATEMENT OF ACCREDITATION STATUS

LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
1858 West Grandview Blvd.
Erie, PA 16509
Phone: (814) 866-6641; Fax: (814) 864-8699
www.lecom.edu

Chief Executive Officer: Dr. John M. Ferretti, President/CEO

INSTITUTIONAL INFORMATION

Enrollment (Headcount): 3594 Graduate
Control: Private (Non-Profit)
Affiliation: None
Carnegie Classification: Special Focus - Medical Schools and Medical Centers
Degrees Offered: Postbaccalaureate Certificate, Master's, Doctor's - Professional Practice;
Distance Education Programs: Fully Approved
Accreditors Recognized by U.S. Secretary of Education: Accreditation Council for Pharmacy Education; American Dental Association, Commission on Dental Accreditation; American Osteopathic Association, Commission on Osteopathic College Accreditation

Instructional Locations

Branch Campuses: LECOM Bradenton, Bradenton, FL
Additional Locations: Seton Hill University, Greensburg, PA
Other Instructional Sites: None

ACCREDITATION INFORMATION

Status: Member since 2006
Last Reaffirmed: November 15, 2012

Most Recent Commission Action:

November 21, 2013: To accept the monitoring report. The Periodic Review Report is due June 1, 2017.

Brief History Since Last Comprehensive Evaluation:

November 15, 2012: To accept the monitoring report and to note the visit by the Commission's representatives. To remove the warning because the institution is now in compliance with Standard 7 (Institutional Assessment) and to reaffirm accreditation. To request a monitoring report, due October 1, 2013, documenting evidence of (1) implementation of a budget process that explicitly links strategic planning to budgeting (Standard 2); and (2) continued progress in the implementation of institutional assessment, including evidence of assessment in all units and of the use of assessment results to improve planning and budgeting and teaching and learning (Standard 7). To further request that, in lieu of the previously requested progress report on the Doctor of Dental Medicine (D.D.M.) degree program, due October 1, 2013, the monitoring report also document (1) progress in the implementation of the program, including the assessment of student learning outcomes in the program and of the effectiveness of the program, and (2) the impact of the implementation of the program on the institution (Standards 7 and 14). The Periodic Review Report is now due June 1, 2017.

September 3, 2013: To acknowledge receipt of the substantive change request and to include the online Masters in Health Services Administration (MHSA) program within the scope of the institution's accreditation. To remind the institution of the request for a monitoring report, due October 1,

time of a report or on-site visit.

Monitoring report: There is a potential for the institution to become non-compliant with MSCHE standards; issues are more complex or more numerous; or issues require a substantive, detailed report. A visit may or may not be required.

Warning: The Commission acts to Warn an institution that its accreditation may be in jeopardy when the institution is not in compliance with one or more Commission standards and a follow-up report, called a monitoring report, is required to demonstrate that the institution has made appropriate improvements to bring itself into compliance. Warning indicates that the Commission believes that, although the institution is out of compliance, the institution has the capacity to make appropriate improvements within a reasonable period of time and the institution has the capacity to sustain itself in the long term.

Probation: The Commission places an institution on Probation when, in the Commission's judgment, the institution is not in compliance with one or more Commission standards and that the non-compliance is sufficiently serious, extensive, or acute that it raises concern about one or more of the following:

1. the adequacy of the education provided by the institution;
2. the institution's capacity to make appropriate improvements in a timely fashion; or
3. the institution's capacity to sustain itself in the long term.

Probation is often, but need not always be, preceded by an action of Warning or Postponement. If the Commission had previously postponed a decision or placed the institution on Warning, the Commission may place the institution on Probation if it determines that the institution has failed to address satisfactorily the Commission's concerns in the prior action of postponement or warning regarding compliance with Commission standards. This action is accompanied by a request for a monitoring report, and a special visit follows. Probation may, but need not always, precede an action of Show Cause.

Suspend accreditation: Accreditation has been Continued for one year and an appropriate evaluation is not possible. This is a procedural action that would result in Removal of Accreditation if accreditation cannot be reaffirmed within the period of suspension.

Show cause why the institution's accreditation should not be removed: The institution is required to present its case for accreditation by means of a substantive report and/or an on-site evaluation. A "Public Disclosure Statement" is issued by the Commission.

Remove accreditation. If the institution appeals this action, its accreditation remains in effect until the appeal is completed.

Other actions are described in the Commission policy, "Range of Commission Actions on Accreditation."

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142 East Ontario Street, Chicago, IL 60611-2884 ph 312 202 8000 | 800 621 1778

MAY 25 2011

COMMISSION ON OSTEOPATHIC COLLEGE ACCREDITATION

May 20, 2011

Albert C. Happ, PhD
Chief, Division of Program Services
Pennsylvania Dept of Education
333 Market Street
Harrisburg, PA 17126-0333

Dear Dr. Happ:

NOTICE: The following information is being provided pursuant to 34 CFR 602.26 issued by the U.S. Department of Education.

At its recent meeting, the American Osteopathic Association's Commission on Osteopathic College Accreditation (COCA) took the following accreditation decision:

American Osteopathic Association Commission on Osteopathic College Accreditation April 30 - May 4, 2011	
College of Osteopathic Medicine	1) Lake Erie College of Osteopathic Medicine 2) Additional location LECOM at Seton Hill University 3) Branch campus LECOM-Bradenton
City, State, Zip	1) Erie, PA 16509 2) Greensburg, PA 15601 3) Bradenton, FL 34211
Accreditation Decision	Continuing Accreditation
Last comprehensive survey evaluation	October 12-14, 2010 and November 18-19, 2010
Next comprehensive survey evaluation	Fall 2017

Information about the accreditation programs of the COCA may be found on the website:
<http://www.aococa.org>

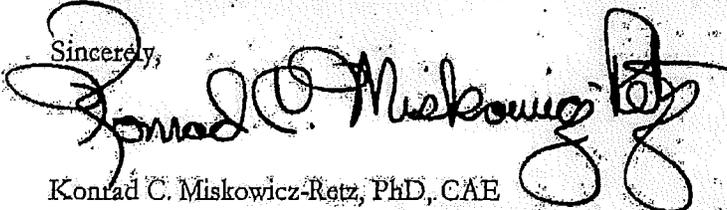
The meaning of COCA accreditation decisions is provided in *Accreditation of Colleges of Osteopathic Medicine: COM Accreditation Standards and Procedures*, which may also be found on the COCA website:
<http://www.aococa.org>

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Albert C. Happ, PhD
May 20, 2011
Page 2

If you have any questions, please do not hesitate to contact me (312.202.8048; 800.621.1773; fax 312.202.8202; e-mail kretz@osteopathic.org). You may also contact Andrea Williams, MA, Assistant Secretary to the COCA, at 312.202.8096; awilliams@osteopathic.org; or feel free to leave a message with my administrative assistant, Maria Kozicz (312.202.8124).

Sincerely,



Konrad C. Miskowicz-Retz, PhD, CAE
Secretary, Commission on Osteopathic College Accreditation

KCMR: mlk

- C: Silvia M. Ferretti, DO, Provost, VP/Dean of Academic Affairs, LECOM
 - Robert George, DO, FACOFP, FAODME, Associate Dean of Academic Affairs,
LECOM-Bradenton
 - Irv Freeman, PhD, JD, VP for LECOM at Seton Hill, Lake Erie College of Osteopathic
Medicine
 - John M. Ferretti, DO, FACOI, President and CEO, LECOM
 - Kenneth J. Veit, DO, MBA, Chair, Commission on Osteopathic College Accreditation
 - Sandra Featherman, PhD, Vice-Chair, Commission on Osteopathic College Accreditation
 - Andrea Williams, MA, Assistant Secretary, Commission on Osteopathic College
Accreditation and Director, Division of Predoctoral Education
 - Gloria Robertson, MA, Accreditation Manager, Division of Predoctoral Education
 - Dr. Elizabeth H. Sibolski, President, Middle States Association of Colleges and Schools,
Middle States Commission on Higher Education
- File

ACCREDITATION COUNCIL FOR PHARMACY EDUCATION



Accreditation Action and Recommendations

JANUARY 19-23, 2011

**Professional Program Leading to the
Doctor of Pharmacy**

LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE

SCHOOL OF PHARMACY

ERIE, PENNSYLVANIA & BRADENTON, FLORIDA

LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY

Doctor of Pharmacy Program

January 19-23, 2011

I. Introduction

The Accreditation Council for Pharmacy Education (ACPE) Board of Directors reviewed the Doctor of Pharmacy program of the Lake Erie College of Osteopathic Medicine School of Pharmacy for purposes of continued accreditation at its January 19-23, 2011, meeting. This review was based upon due consideration of the Evaluation Team Report from the on-site evaluation dated September 13-16, 2010, the School's self-study, and other communications received from the institution.

II. Accreditation Action

Following discussion of the program, it was the decision of the Board that **accreditation of the Doctor of Pharmacy program be continued**. The professional program of the school and its accreditation status will be designated on ACPE's web site, www.acpe-accredit.org. Notice of the accreditation status of the program will also appear in the ACPE Report of the Proceedings, to be distributed during February 2011.

III. Accreditation Terms and Conditions

A. Accreditation Term The accreditation term granted for the Doctor of Pharmacy program extends until **June 30, 2017**, which represents the customary six-year accreditation cycle. The academic year for the next currently scheduled review of the Doctor of Pharmacy program for purposes of continued

**LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY**

accreditation is **2016-2017**, with a visit likely in fall 2016. This schedule is contingent upon maintenance of the presently observed quality during the stated accreditation term. *The ACPE Board of Directors reserves the right to revise its accreditation action or to alter these dates based upon monitoring, such as written reports and/or focused on-site reviews as may be scheduled during the accreditation term stated above.*

B. Monitoring During the Accreditation Term A **written interim report** should be submitted to the ACPE office no later than **April 1, 2014**, that addresses the issues identified in the Evaluation Team Report of September 13-16, 2010, and as detailed below.

C. Comments and Recommendations. This accreditation action was taken in recognition of the progress made since the last accreditation review and with confidence that existing School and programmatic needs will continue to be addressed in a timely manner and to the satisfaction of the ACPE Board of Directors. The Evaluation Team Report of September 13-16, 2010, presents important needs and developmental issues in keeping with Standards 2007. It should be noted that this Accreditation Action and Recommendations document and the Evaluation Team Report are companion pieces and should be used together to guide the School's continuing developmental efforts.

The Board references specific issues below that should be included in the requested report and appends the *ACPE Guidelines for Interim Reports during the Accreditation Term* for guidance in preparing the submission.

**LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY**

Summary of the Evaluation of All ACPE Standards

The evaluation of the program on each of the ACPE accreditation standards (Standards 2007) is noted below.

Standards	Compliant	Partially Compliant	Non-Compliant
MISSION, PLANNING, AND EVALUATION	monitor		
1. College or School Mission and Goals	<input checked="" type="checkbox"/>		
2. Strategic Plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Evaluation of Achievement of Mission and Goals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ORGANIZATION AND ADMINISTRATION			
4. Institutional Accreditation	<input checked="" type="checkbox"/>		
5. College or School and University Relationship	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6. College or School and other Administrative Relationships	<input checked="" type="checkbox"/>		
7. College or School Organization and Governance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
8. Qualifications and Responsibilities of the Dean	<input checked="" type="checkbox"/>		
CURRICULUM			
9. The Goal of the Curriculum	<input checked="" type="checkbox"/>		
10. Curricular Development, Delivery, and Improvement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Teaching and Learning Methods	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Professional Competencies and Outcome Expectations	<input checked="" type="checkbox"/>		
13. Curricular Core—Knowledge, Skills, Attitudes, and Values	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
14. Curricular Core—Pharmacy Practice Experiences	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
15. Assessment and Evaluation of Student Learning and Curricular Effectiveness	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
STUDENTS			
16. Organization of Student Services	<input checked="" type="checkbox"/>		
17. Admission Criteria, Policies, and Procedures	<input checked="" type="checkbox"/>		
18. Transfer of Credits and Waiver of Requisites for Admission with Advanced Standing	<input checked="" type="checkbox"/>		
19. Progression of Students	<input checked="" type="checkbox"/>		
20. Student Complaints Policy	<input checked="" type="checkbox"/>		
21. Program Information	<input checked="" type="checkbox"/>		
22. Student Representation and Perspectives	<input checked="" type="checkbox"/>		
23. Professional Behavior and Harmonious Relationships	<input checked="" type="checkbox"/>		
FACULTY AND STAFF			
24. Faculty and Staff—Quantitative Factors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
25. Faculty and Staff—Qualitative Factors	<input checked="" type="checkbox"/>		
26. Faculty and Staff Continuing Professional Development and Performance Review	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
FACILITIES AND RESOURCES			
27. Physical Facilities	<input checked="" type="checkbox"/>		
28. Practice Facilities	<input checked="" type="checkbox"/>		
29. Library and Educational Resources	<input checked="" type="checkbox"/>		
30. Financial Resources	<input checked="" type="checkbox"/>		

**LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY**

Monitoring requested by the ACPE Board for the Interim Report, by Standard:

Standard No. 2: Strategic Plan

- A **copy** of the School's current updated strategic plan should be provided.

Standard No. 3: Evaluation of Achievement of Mission and Goals

- A **brief description** of the development of a School of Pharmacy "dashboard" to provide ongoing, real-time assessment data to faculty and leadership should be provided. This should also include demonstration that comparable outcomes have been achieved by graduates from the Erie and Bradenton campuses.

Standard No. 5: College or School and University Relationship

- A **brief description** of any changes to LECOM and/or School policies to ensure that the organizational structure supports achievement of the School's strategic goals and objectives should be provided.

Standard No. 7: College or School Organization and Governance

- A **brief description** of the School's plan to assess the effectiveness of the new organizational structure should be provided. This should also include a summary of the data derived through these assessments, as well as how the data has been utilized to support the implementation of any needed refinements.

**LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY**

Standard No. 10: Curricular Development, Delivery, and Improvement

- A **brief description** of the continued development of the relationship between the two Curriculum Committees and the Curriculum Team should be provided.

Standard No. 11: Teaching and Learning Methods

- A **brief description** of the continued development and implementation of strategies to support active learning throughout the curriculum should be provided.

Standard No. 13: Curricular Core – Knowledge, Skills, Attitudes, and Values

- A **brief description** of the results of the School's curricular mapping exercise should be provided. Progress with the integration of Medicinal Chemistry, Pharmacology, and Pharmacotherapeutics at the Erie campus should be described, and an analysis of any assessment data of resulting curricular changes should be provided.

Standard No. 14: Curricular Core – Pharmacy Practice Experiences

- A **brief description** of the outcome of the change from EMS to PharmAcademic support for experiential program management, and an assessment of the effectiveness of the new reporting structure for experiential education.

Standard No. 15: Assessment and Evaluation of Student Learning and Curricular Effectiveness

- A **brief description** of the comparability of student outcomes at each campus should be provided following the graduation of the first class from the Bradenton campus (spring 2011).

**LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY**

Standard No. 24: Faculty and Staff – Quantitative Factors

- A **brief description** of the outcomes of the faculty workload review that is currently planned should be provided.
- A **brief description** of faculty and staff recruitment, retention, and turnover should also be provided, including an updated **copy of** the ACPE Faculty Resource Report.

Standard No. 26: Faculty and Staff Continuing Professional Development and Performance Review

- A **brief description** of faculty assessment of flexibility and effectiveness in terms of how faculty development support allocations are utilized.

Additionally, ACPE may at any time during the awarded accreditation term request additional information. Once the requested issues have been addressed and the necessary information is submitted in the form of a requested interim report or on-site evaluation, review by the ACPE Board of Directors could result in the following outcomes:

- affirmation of the accreditation action, terms, and conditions with no additional reporting required;
- additional reporting could be requested to address issues that could not be addressed within the stated reporting timeframe, or to monitor issues requiring further attention; or
- additional on-site review by ACPE to permit observation of progress regarding issues requiring attention.

In accord with ACPE policy, if additional reporting and/or on-site review is not satisfactory in any area, the Board could then act to reduce a previously awarded accreditation term, award a probationary accreditation status, or take an adverse

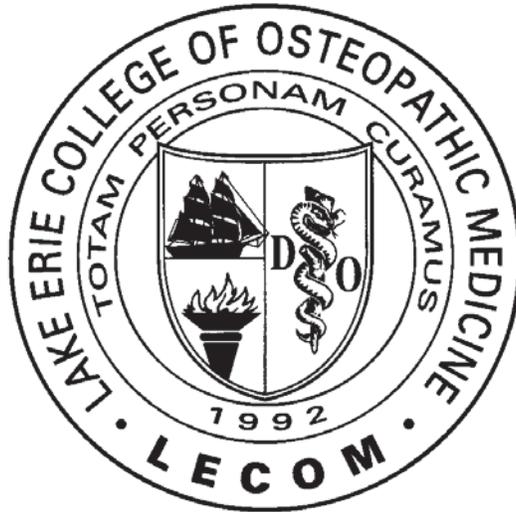
**LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE
SCHOOL OF PHARMACY**

accreditation action (cf. **Policies and Procedures for Accreditation of Professional Degree Programs, January 2010**).

The Evaluation Team Report and the Accreditation Action and Recommendations are confidential documents and are considered to be the property of the institution. These documents will not be released to third parties without the authorization of the chief executive officer of the institution. Without such authorization, the sole information available to the public consists of that information contained in the Directory and in the Report of Proceedings from the meeting at which the accreditation action was taken. If the institution releases any portion of the Evaluation Team Report or the Accreditation Action and Recommendations, or releases any statement concerning such documents that ACPE believes requires public clarification or presents a misleading impression, ACPE may make an appropriate response or cause the release of such documents in their entirety.

Additionally, in accord with ACPE policy, the school is reminded that ACPE should be notified of any substantive change prior to its implementation to allow ACPE adequate time to consider the impact of the proposed change on programmatic quality. The ACPE substantive change policy provides details as to what constitutes such a change.

**Lake Erie College of Osteopathic Medicine
And School of Pharmacy**



Vol. 11

2014-2015

**ACADEMIC CATALOG
AND
STUDENT HANDBOOK**

1858 West Grandview Boulevard • Erie, PA 16509 • (814) 866-6641
5000 Lakewood Ranch Boulevard • Bradenton, FL 34211 • (941) 756-0690
20 Seton Hill Drive • Greensburg, PA 15601 • (724) 552-2880

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**College of Medicine
Erie, Bradenton and Seton Hill
2014-2015 Academic Calendar**

June 2, 2014	Academic Year Begins – 3 rd & 4 th year rotations
July 28, 2014	Orientation for the Class of 2018 Academic Year Begins
August 4, 2014	Academic Year Begins – 2 nd year students
September 1	Labor Day (No Classes)
November 26 - 28	Thanksgiving Break (No Classes)
December 1	Classes Resume
December 19	Semester Ends
January 5, 2015	Second Semester Begins – 1 st & 2 nd year
January 19	Freedom Day (No Classes)
May 15	Semester End Date – 2 nd year
May 22	Semester End Date – 1 st year
May 30	Academic year ends – 3 rd & 4 th year rotations
May 31, 2015	Commencement Erie
June 7, 2015	Commencement Bradenton



**2014-2015 ACADEMIC CALENDAR
SCHOOL OF PHARMACY
Bradenton Campus**

June 30 – July 25, 2014
July 28 – August 22, 2014
Sept. 1 – Sept. 26, 2014

P2 IPPE Rotation #1
P2 IPPE Rotation #2
P2 IPPE Rotation #3

August 13 – August 15, 2014

Orientation – P1, Class of 2018

August 18

First Day of Classes – P1 and P3

September 1

Labor Day (No Classes)

October 13

Return to Campus – P2

November 26 – 28

Thanksgiving Break

December 1

Classes Resume

December 12, 2014

Semester Ends

January 19, 2015

Freedom Day (no classes)

January 20, 2015

Spring Semester Begins

March 25 – 27

Spring Break (APhA Meeting)

March 30

Classes Resume

April 24

Semester Ends, – P4

May 15

Semester Ends – P1, P2, P3

June 7, 2015

Commencement – Class 2015

See Experiential Education Academic Calendar for detailed P2 (Class of 2017)
and P4 (Class of 2015) rotation schedules.

Experiential Education Academic Calendar

Class of 2015 (P4) – APPE Rotations

Class of 2017 (P2) – IPPE Rotations

P2 IPPE Rotation Dates:

June 30 – July 25, 2014

P2: IPPE #1

July 28 – August 22

P2: IPPE #2

September 1 – September 26

P2: IPPE #3

Rotation Dates:

Rotation Block	Dates	Breaks	APPE	IPPE
Jun-2014	6/2/2014 – 6/27/2014		√	
Jul-2014	6/30/2014 – 7/25/2014		√	√
Aug-2014	7/28/2014 – 8/22/2014	1 week off	√	√
Sep-2014	9/1/2014 – 9/26/2014		√	√
Oct-2014	9/29/2014 – 10/24/2014		√	
Nov-2014	10/27/2014 – 11/21/2014		√	
Dec-2014	11/24 2014 – 12/19/2014	2 weeks off	√	
Jan-2015	1/5/2015 – 1/30/2015		√	
Feb-2015	2/2/2015 – 2/27/2015		√	
Mar-2015	3/2/2015 – 3/27/2015		√	
Apr-2015	3/30/2015 – 4/24/2015	1 week off	√	
May-2015*	5/4/2015 – 5/29/2015		√	

* May 2015

- This block will be reserved for any remediation rotations that need to be scheduled

2014-2015 ACADEMIC CALENDAR
SCHOOL OF PHARMACY
Erie Campus

August 7-9, 2014	Orientation for Class of 2018
August 11	First Day of Classes (All years)
September 1	Labor Day (No Classes)
September 20, 2014	White Coat Ceremony
October 27-31	Mid-semester Break (1 st & 2 nd year)
November 3 – 7	Mid-semester Break (3 rd year)
November 27 – 28	Thanksgiving (No Classes)
December 22– January 2, 2015	Holiday Break (All years)
January 5, 2015	Classes Resume (All years)
January 19	Freedom Day (No Classes)
January 30	Semester Ends (1 st & 2 nd year)
February 9	Second Semester Begins (1 st & 2 nd year)
February 16 – 20	Mid-semester Break (3 rd year)
April 27 – May 8	Mid-Semester Break (1 st & 2 nd year)
May 15	Academic Year Ends (3 rd year)
May 18 – August 7	IPPE Rotations (1 st year)
May 25	Memorial Day (No Classes)
May 31, 2015	Commencement – Class of 2015
July 4	Independence Day (No Classes)
July 24	Semester Ends (2 nd year)
August 7, 2015	Semester Ends (1 st year)

2014-2015 ACADEMIC CALENDAR
SCHOOL OF PHARMACY
Erie Campus
3rd Year Students

Fall/Winter Semester

August 11 – September 19, 2014	First APPE Rotation
September 22 – October 31, 2014	Second APPE Rotation
November 3 – November 7, 2014	Break
November 10 – December 19, 2014	Third APPE Rotation/1 st Semester Ends
December 22, 2013 - January 2, 2015	Break

Spring/Summer Semester

January 5 – February 13, 2015	Fourth APPE Rotation/2 nd Semester Begins
February 16 – February 20, 2015	Break
February 23 – April 3, 2015	Fifth APPE Rotation
April 6 – May 15, 2015	Sixth APPE Rotation
May 26 – May 29, 2015	Commencement Activities/Board Review
May 31, 2015	Commencement – Class of 2015

*As students are expected to earn a total of 240 hours during each rotation block, any LECOM holiday time-off requested must be accounted for (no > total of 50 hrs./week) at the discretion of the preceptor/site.

LECOM School of Pharmacy
Distance Education Pathway
2014 – 2015 Academic Calendar

August 12 – August 15, 2014	Orientation – P1, Class of 2018 <i>(Live in Bradenton, FL)</i>
August 18	First Day of Classes – P1
September 1	Labor Day (No Classes)
November 26 – 28	Thanksgiving Break
December 1	Classes Resume
December 12, 2014	Semester Ends
January 19, 2015	Freedom Day (no classes)
January 20, 2015	Spring Semester Begins
March 25 – 27	Spring Break (APhA Meeting)
March 30	Classes Resume
May 18 – June 5, 2015	Break
June 8– June 26, 2015	Extended Learning Session <i>(Live in Bradenton, FL)</i>
June 26	Spring Semester Ends

2014-2015 ACADEMIC CALENDAR

Graduate Studies of the College of Medicine

June 9, 2014	Classes and Mid-year Cohort Begin - MSMED 2 nd Semester Summer Session
August 31, 2014	End of Summer Session – MSMED
September 1, 2014	Classes Begin, 2 nd Semester Fall Session - MSMED
September 3, 2014	First Semester Begins - Health Sciences Post-Baccalaureate Program and MSBS
November 26-28	Thanksgiving Break
December 11, 2014	End of semester – PB, MSBS1, MSBS2,
December 31, 2014	End of 2 nd Semester - MSMED
January 1, 2015	Classes & Beginning Year Cohort Begin - MS Med 1 st Semester
January 5, 2015	Second Semester Begins - Post-Baccalaureate and MSBS1 & 2
January 19, 2015	Freedom Day (No Classes)
April 17, 2015	End of Academic Year – Post-Baccalaureate and MSBS1
May 25, 2015	No Classes all programs and campuses – Memorial Day
May 31, 2014	End of 1 st Semester – MSMED
June 1, 2015	Classes & Mid-year Cohort begin - MSMed

1. GENERAL INFORMATION

1.1. DESCRIPTION AND PURPOSE OF ACADEMIC CATALOG AND STUDENT HANDBOOK

This Handbook is a reference guide to provide information to students about the College of Medicine (“the College” or “COM”), the School of Pharmacy (“the School” or “SOP”) and LECOM’s other academic programs (together “LECOM”). The Academic Catalog and Student Handbook contains information about the organization of LECOM, admissions process, academic requirements, course descriptions, policies, regulations and student support services. Information for the School of Dental Medicine is provided in a separate document.

Each step of the educational process, from admission through graduation, requires continuing review and approval by the LECOM administration. LECOM is not responsible for and disclaims any misrepresentations of its requirements or provisions that might arise as a result of errors in preparation of the Academic Catalog and Student Handbook. LECOM reserves the right, at any time, with or without notice to modify the Academic Catalog and Student Handbook, including but not limited to changes in requirements, courses, policies, and procedures.

Each student enrolled in LECOM is individually responsible for knowledge of the current academic regulations, the general and specific requirements, and the operational policies as contained in the Student Handbook and other official documents or announcements of LECOM. This handbook can be viewed electronically on the web site <http://lecom.edu/catalog.php>.

To the extent applicable, students are subject to and will be expected to observe the provisions of the Code of Ethics of the American Osteopathic Association and the Code of Ethics for Pharmacists contained herein.

Upon the end of each academic year, representatives of the College of Medicine and the School of Pharmacy, along with the Directors of Student Affairs at each location and LECOM counsel, review the annual Academic Catalog and Student Handbook to insure accuracy of all provisions and to insert a description of any changes to curricula or policies. A new Academic Catalog and Student Handbook is published on or around July 1 of each year.

1.2. POLICY AND STATEMENT OF NONDISCRIMINATION

LECOM prohibits and does not engage in discrimination on the basis of race, ethnicity, color, religion, creed, national origin, gender, sexual orientation, age, disability, status as a veteran or disabled veteran, citizenship (within the limits of the law) or any other legally protected characteristic and follows all applicable federal and state law. This policy applies to all LECOM programs and activities, including but not limited to admission, education, scholarship,

graduation, loan policies, practices, procedures, and programs.

1.3. MISSION STATEMENT

The mission of the Lake Erie College of Osteopathic Medicine (LECOM) is to prepare students to become osteopathic physicians, pharmacy practitioners and dentists through programs of excellence in education, research, clinical care, and community service to enhance the quality of life through improved health for all humanity. The professional programs are dedicated to serve all students through innovative curriculum and the development of postdoctoral education and inter-professional experiences.

1.4. HISTORY OF LECOM

As the 20th Century drew to a close, those in governance of the Millcreek Community Hospital (MCH) in Erie, Pa. were faced with a problematic decision. In an era during which it was becoming increasingly difficult to attract new physicians to the calling, this small community hospital sought to maintain its position of leadership within the field of health care. This group of health care leaders looked closely at the medical educational role, specifically clinical rotations from other colleges of osteopathic medicine and its own residency programs, and determined to open a medical school in Erie.

At a time during which much of the medical community did not see a need for additional medical colleges much less the need for more physicians, the MCH Board saw it differently. The hospital existed in an area within close proximity to Pittsburgh, Cleveland, and Buffalo; an area underserved by physicians. The establishment of a medical college in Erie had the intended effect of allowing the hospital to intensely train needed new doctors and to accommodate the open positions at MCH and at other hospitals throughout the region.

The journey began in September of 1988, when the Board of Trustees of Millcreek Community Hospital conducted a major strategic planning retreat. Attendees at the planning session established a new hospital mission that emphasized the need for educating osteopathic physicians to provide medical services to the medically underserved areas across Northwestern Pennsylvania.

In March 1989, the Board of Trustees assembled an Osteopathic Medical School Task Force that began to explore the feasibility of founding a new osteopathic medical school. The Lake Erie College of Osteopathic Medicine (LECOM) was established as the nation's 16th college of osteopathic medicine with its receipt of a Commonwealth of Pennsylvania Charter in December 1992. The Charter Class began on August 9, 1993. With the graduation of LECOM's inaugural class on May 24, 1997, the College received full accreditation from the American Osteopathic Association. Since that time, LECOM has granted the Doctor of Osteopathic Medicine degree to more than 4300] graduates.

The founding President, Joseph J. Namey, D.O., was an acclaimed general practitioner and a tireless advocate of osteopathic medicine. A longtime resident of Erie, Dr. Namey has been credited with enhancing the image of osteopathic medicine across the country. John M. Ferretti, D.O., succeeded Dr. Namey, becoming the second president of LECOM. Dr. Ferretti is a board certified internist, who was among the College founders and is a nationally recognized leader in osteopathic medicine. Under Dr. Ferretti's guidance, the Lake Erie College of Osteopathic Medicine has gained national prominence.

By 2002, College growth and enrollment required LECOM to triple the size of the original medical school building, adding 100,000 square feet of modern teaching, learning, and research facilities. True to the College mission to provide primary health care to Northwestern Pennsylvania, LECOM achieved another milestone with the addition of its School of Pharmacy. The Commonwealth of Pennsylvania approved the LECOM School of Pharmacy in May 2001. Classes began in September 2002, and with a three-year, accelerated curriculum, LECOM held its first pharmacy school graduation in June 2005. Following that commencement, the School of Pharmacy received full accreditation from the Accreditation Council for Pharmacy Education. Since that time, LECOM has granted the Doctor of Pharmacy Degree to over 1500 graduates.

LECOM is a private, non-profit corporation and it is part of the Millcreek Health System, which includes Millcreek Community Hospital, Millcreek Geriatric Care and Education Center, LECOM, Medical Associates of Erie (a physician practice group), and the John M. and Silvia Ferretti Medical Fitness and Wellness Center. With the acquisition of the neighboring LORD Corporation property in 2011, LECOM now encompasses a park-like, 53-acre campus with an excellent view of Lake Erie.

In addition to the original campus in Erie, Pennsylvania, LECOM has continued its role in the vanguard of national leadership in osteopathic medicine by developing a branch campus in Bradenton, Florida. Located in the lush setting of Lakewood Ranch, a master-planned community in Manatee County, Florida, LECOM Bradenton welcomed its first class of medical students on September 13, 2004. With the enrollment of the Bradenton Class of 2011, LECOM became the largest medical college in the nation.

In 2007, the School of Pharmacy also expanded to Florida, offering a traditional four-year Doctor of Pharmacy degree curriculum and it graduated its first class in 2011. The vision of LECOM continued in 2009 with the extension of LECOM Erie to the campus of the private liberal arts institution of Seton Hill University in Greensburg, Pennsylvania. LECOM at Seton Hill added an additional 104 medical students to the first-year class and today has a total enrollment of more than 400 students.

With the nation still facing a family physician shortage in 2007, the College introduced the Primary Care Scholars Pathway that would enroll students committed to family medicine or internal medicine. The program condensed the four-year osteopathic medicine curriculum into three years by concentrating on those subjects and clinical experiences most needed by a primary care physician. Four years later, the College added a second three-year, osteopathic medicine

degree program designed for Certified Physician Assistants, the Accelerated Physician Assistant Pathway.

In keeping with its proven tradition of leading the field in medical education, LECOM initiated the Masters of Science in Medical Education degree program at the Erie campus in 2008. This post-graduate course trains physicians to become teachers and leaders in the clinical education of future physicians. The College also offers a Master of Science in Biomedical Sciences and a Health Sciences post-baccalaureate certificate. With the expansion of master level curricula, the LECOM School of Graduate Studies was developed at the Bradenton campus and the Masters in Health Services Administration was initiated in January of 2014.

In July 2012, the LECOM School of Dental Medicine welcomed 100 students to its new state of the art facility in Bradenton, FL, adjacent to the COM/SOP campus. The opening of the School of Dental Medicine establishes yet another step in the betterment of healthcare education. The first class will graduate in June 2015. It is anticipated that class size will be at a level of one hundred students per year.

In 2014, in recognition of the need to offer the Pharm.D degree to students who were not able to leave their home communities, the LECOM School of Pharmacy plans to provide, a Distance Education pathway leading to the Pharm.D degree for 24 students per year. This program has been approved by accreditation authorities. This pathway will be modeled after the Bradenton School of Pharmacy curriculum and will include both synchronous as well as asynchronous learning activities.

Augmenting the educational advancements, LECOM has been ever-cognizant of its role in community enrichment. With the 2009 opening of the LECOM John M. and Silvia Ferretti Medical Fitness and Wellness Center, the College founded a medically integrated wellness center that not only serves the fitness and medical education needs of LECOM students and employees of Millcreek Health System, but also provides a facility that offers to the populace of Erie County an opportunity to pursue a better quality of life through prevention and wellness. In 2011, LECOM expanded its community offerings in Erie by opening the Coffee Culture Café and Eatery to provide a relaxing study space for students and an attractive venue for the public to enjoy coffee or a light fare.

Now in its 23rd year, LECOM has developed a reputation as a leader in medical education with its graduates highly sought after in the fields of medicine and pharmacy. LECOM also has set the standard for affordable education in a private medical college setting where graduates typically achieve outstanding board scores and journey forward to make a difference in the field of health care.

The College established its place in medical education through many innovations; one of its most noteworthy offerings focuses upon its student-centered learning pathways. LECOM became one of the first institutions to present its curriculum in multiple learning styles designed to address the specific educational needs of its students and it accorded to them a choice of three-year or

four-year programs.

Coupled with an excellent curriculum, the character of those who practice their noble profession is at the heart of a LECOM education. Those in leadership understood that a physician embodies honor, professional appearance, purposeful action, and responsible behavior. The College adopted an honor code, a dress code for classroom and clinic, and professional policies that inculcate respect for the faculty.

The founders of the Lake Erie College of Osteopathic Medicine knew that their actions would inspire, their mission would bring purpose, and their commitment to a vision would result in a better tomorrow, not only for the generations of scholars who have crossed the threshold of a great institution, but to the communities and to the larger world that they will serve in the calling of a lifetime.

1.5. THE JOHN M. & SILVIA FERRETTI MEDICAL FITNESS & WELLNESS CENTER

LECOM and Millcreek Community Hospital launched a project that joins health care services and fitness programs into one center. The LECOM John M. and Silvia Ferretti Medical Fitness and Wellness Center, housing a premier fitness center and clinical offices of Medical Associates of Erie, is a center where the Erie Community can work toward disease prevention as well as seek treatment.

The spa-quality fitness center occupies the first two floors of the three-story building with three swimming pools, aerobic and yoga fitness rooms, basketball and racquetball courts, a 3-lane indoor running track and a physical therapy facility. The third-floor houses offices for the Medical Associates of Erie offering internal medicine, integrative medicine, geriatrics, orthopedic surgery and obstetrics/gynecology. The union of a comprehensive fitness center and medical offices into one center reflects osteopathic medicine's commitment to preventive, total-person health care. The LECOM John M. and Silvia Ferretti Medical Fitness and Wellness Center opened in March 2009. All matriculating students are eligible for membership.

Students at the Bradenton campus can make use of facilities at the YMCA, which is adjacent to the campus. Seton Hill students can make use of Seton Hill University's fitness center and athletic facilities.

1.6. DEGREES AWARDED

The Doctor of Osteopathic Medicine (D.O.) degree is awarded to graduates who have successfully fulfilled all requirements for graduation.

The Doctor of Pharmacy (Pharm.D.) degree is awarded to graduates who have successfully

fulfilled the requirements for graduation.

The Doctor of Dental Medicine (D.M.D.) degree will be awarded to graduates of the School of Dental Medicine.

The Master of Science in Medical Education (M.S. Med. Ed.) degree is awarded to graduates who have successfully fulfilled the requirements for graduation.

The Master of Science in Biomedical Sciences (M.S. in Biomedical Sciences) degree is awarded to graduates who have successfully fulfilled the requirements for graduation.

The Masters in Health Services Administration degree is awarded to graduates who have successfully fulfilled the requirements of the program for graduation.

1.7. ACCREDITATION

The Lake Erie College of Osteopathic Medicine is licensed by the Department of Education of the Commonwealth of Pennsylvania, and is fully accredited by the American Osteopathic Association, Commission on Osteopathic College Accreditation (COCA).

LECOM is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools; 3624 Market Street, Philadelphia, PA 19104; (267) 284-5000. The Commission on Higher Education is recognized by the U.S. Department of Education.

LECOM students interested in: (1) making complaints related to the accreditation standards and procedures, or (2) making complaints regarding the use of these accreditation standards and procedures during AOA-COCA site visits should make these complaints in writing to the Dean of Academic Affairs, who will maintain records of the receipt, adjudication, and resolution of such complaints. The American Osteopathic Association, Commission on Osteopathic College Accreditation (COCA) may be contacted at the following address: 142 East Ontario Street, Chicago, IL 60611; (800) 621-1773 Ext 8048. The American Osteopathic Association Commission on Osteopathic College Accreditation publishes accreditation standards and procedures, which are found at: http://do-online.osteotech.org/pdf/acc_predoccompdf.pdf.

The LECOM School of Pharmacy is fully accredited by the Accreditation Council for Pharmacy Education (ACPE) Board of Directors.

LECOM students interested in: (1) making complaints related to the accreditation standards and procedures, or (2) making complaints regarding the use of these accreditation standards and procedures during an Accreditation Council for Pharmacy Education site visit should make these complaints in writing to the Dean of the School of Pharmacy, who will maintain records of the receipt, adjudication and resolution of such complaints. Complaints may also be sent to the following web sites: csinfo@acpe-accredit.org (regarding a professional degree program) or ceinfo@acpe-accredit.org (regarding a continuing education provider).

Out-of-state distance learning students who would like to file a complaint with a state agency may do so with the state in which they reside. The State Higher Education Executive Officers (SHEEO) provides individual state contact information. See the SHEEO website located at www.sheeo.org.

Students may also use the following link:

<http://www.sheeo.org/sites/default/files/Complaint%20Process%20Links%2012-2012.pdf>

Students may review the institution’s accreditation and licensing documents upon request. Requests should be made to the Office of Student Affairs.

1.8. LICENSURE

The LECOM Bradenton campus is licensed by the Commission for Independent Education, Florida Department of Education. Additional information regarding this institution can be obtained by contacting the Commission at 325 West Gaines Street, Suite 1414, Tallahassee, Florida 32399, toll free number (888) 224-6684.

1.9. WRITTEN AGREEMENTS

Students at both the College and the School will have a significant portion of their education provided by other entities while on rotations away from LECOM. LECOM has agreements with clinical preceptors/sites that are available for review. The number of such agreements is substantial and varies from year to year. The terms of these agreements impose no additional costs to LECOM students. Additional costs may, however, be incurred by students on rotations in terms of travel and living expenses. These costs vary widely, depending on the location of the rotation and the circumstances of the individuals.

1.10. EARLY ACCEPTANCE PROGRAM

LECOM has developed special Early Acceptance Programs (EAP) with select community colleges, undergraduate colleges and universities that grant qualified students a provisional early acceptance to LECOM’s School of Pharmacy, School of Dental Medicine or College of Osteopathic Medicine. In some cases, these programs will permit the student to start the professional program prior to receiving a bachelor degree from the undergraduate

Dental	Medical	Pharmacy
<ul style="list-style-type: none"> • 4+4 	<ul style="list-style-type: none"> • 3+4 • 4+4 	<ul style="list-style-type: none"> • 2+3(4) • 3+3 (4) • 4+3 (4)

Figure 1

institution. Figure #1 lists the programs offered by each program. The first digit represents the number of years at the undergraduate institution (phase I); the second is the number of years at LECOM (phase II). The Pharmacy program at Erie is a three year program.

A student may apply for EAP consideration as a high school senior or as a current undergraduate student, as long as they are enrolled with at least two years of undergraduate study remaining before their matriculation at LECOM. This program is not available to anyone with a bachelor or higher degree.

Applications to the EAP are done on-line. Following the receipt of an inquiry, the applicant is provided a username and password to enter the LECOM portal and complete the EAP application. LECOM reviews the application, inviting qualified applicants for an interview. Following a successful interview, they are enrolled in the EAP upon matriculation at one of the affiliated undergraduate schools and are sent a provisional letter of acceptance. Students currently attending an affiliated institution immediately receive their letter. The provisional acceptance secures a seat for phase II, as long as they meet the phase II requirements. No additional interview will be required.

Phase II entrance requirements vary by program but are consistent with the requirements needed for acceptance by non-affiliated students.

1.11. INTERNATIONAL STUDENTS

The following policy has been established for international candidates applying for admission to LECOM and/or for students with credentials from a college or university not in the U.S.:

- International students applying for admission to LECOM must meet all general admissions requirements as stated in our admissions policy as well as the required AACOMAS and Supplemental Applications.
- A minimum of two (2) years undergraduate training (60 semester hours of credit) must be completed at a United States institution of higher education prior to consideration for admission to LECOM. Proficiency in the English language; both written and spoken, is required.
- All course work taken at foreign institutions must be evaluated by World Education Services, Inc., P.O. Box 745, Old Chelsea Station, New York, NY 10011, (212) 966-6311, or Josef Silny &

Associates, Inc., International Education Consultants, P.O. Box 248233, Coral Gables, FL, 33124, (305) 666-0233.

- Credit for advanced standing will not be given for any work completed in foreign graduate or medical schools. All students must apply for first-year status.
- International students must have permanent residency status (Alien Registration Card) to be eligible to receive any type of financial assistance through the College loan programs.
- International students not having their permanent residency status must provide written proof of ability to finance their medical education for the length of the program of study prior to being granted admission.
- International students must meet all the requirements and comply with all the regulations for temporary visas or residency status in accordance with the U.S. Immigration and Naturalization Service (INS) regulations governing retention and reporting information by the Student and Exchange Visitor Information System (SEVIS).

2. ACADEMIC PROGRAMS

2.1. COLLEGE OF MEDICINE

LECOM has three campuses offering the Doctor of Osteopathic Medicine degree program (D.O.). The D.O. Program currently offers five academic learning pathways for the preclinical curriculum portion of the program: the Lecture Discussion Pathway (LDP), the Directed-Study Pathway (DSP), Problem-Based Learning Pathway (PBL), the Primary Care Scholars Pathway (PCSP) and the Accelerated Physician Assistant Pathway (APAP). All five pathways are offered at the Erie campus. The Bradenton and Seton Hill campuses offer only the PBL pathway.

The LECOM Erie campus is located on a 53-acre campus overlooking beautiful Lake Erie. In addition to the main building, the College also has a facility on the Erie bayfront, a fitness center, a clinical assessment center and a student center also located off campus. Erie is known for its maritime history and year-round recreational activities. The city enjoys a safe, "small-town" atmosphere with "big city" amenities. The city is within a two-hour drive of Cleveland, Ohio; Buffalo, New York; and Pittsburgh, Pennsylvania.

The LECOM Bradenton campus is located in Lakewood Ranch, a master-planned community in Manatee County Florida. LECOM Bradenton offers one academic pathway: PBL Medicine Program/Problem Based Learning Pathway. This campus is located 45 miles south of Tampa.

LECOM at Seton Hill is an additional site of LECOM located on the campus of Seton Hill University in Greensburg, Pennsylvania. Students at this location follow the Problem-Based Learning Pathway (PBL) for their pre-clinical basic science education. (Students can also enter in the APAP program). Greensburg is located approximately 30 miles east of Pittsburgh at the start of Pennsylvania's Laurel Highlands recreation area.

The Lake Erie College of Osteopathic Medicine is the nation's largest medical school and the only Academic Health Center among the colleges of osteopathic medicine. With Millcreek Community Hospital and the Clinical Practices of LECOM, the College is the core of an innovative medical education and health care system.

This partnership strives to add to the quality of life for our neighbors by bringing total health care to the community by:

- Developing a 218-bed teaching hospital training new physicians and pharmacist in 17 residency and fellowship programs in the region's largest post-graduate medical training institution;
- Building a network of clinical practices in Erie County with more than 40 physicians who not only help to meet the health care needs of our patients, but also serve as clinical instructors for our students;

- Opening one of the premiere medical fitness and wellness centers in the country designed to focus on the total well-being of its members;
- And constructing a new 144-bed senior living center to provide skilled nursing care in a homelike environment and providing a new teaching model for geriatric care.

As LECOM continues its growth at our Pennsylvania and Florida campuses, the College will continue its mission of providing a quality medical education at an affordable price as we prepare the next generation of osteopathic physicians, pharmacists, dentists, healthcare administrators and medical educators.

Research is a key part of the LECOM mission to prepare well-qualified healthcare professionals. The LECOM Research Collective and the Office of Research maintain laboratories at the campuses in Erie and Bradenton including the Italo Cappabianca Research Center on the main campus.

2.1.1. The Philosophy of Osteopathic Medicine

At LECOM, today's physicians are training tomorrow's doctors. LECOM is developing physicians and health care professionals who understand the importance of preventive healthcare and the principles of osteopathic whole-person medicine.

Osteopathic medicine stresses a comprehensive approach to the maintenance of health. The roots of osteopathic medical education lie in the emphasis it places on the musculoskeletal system. The interrelationship between the musculoskeletal system and other body systems are basic to health maintenance and the prevention of disease. Founded by Andrew Taylor Still, M.D. (1828-1917), osteopathic medicine utilizes four fundamental principles which enable the osteopathic physician to look at health and disease in a unique manner:

- The body is a unit; the person is a unity of body, mind, and spirit.
- The body is capable of self-regulation, self-healing, and health maintenance.
- Structure and function are reciprocally interrelated.
- Rational treatment is based on the above three principles.

2.1.2. Admissions Requirements

Applicants shall meet these minimum requirements:

- A. Applicants will have completed a baccalaureate degree from a regionally accredited college or university by the time of enrollment. Applicants participating in special affiliated programs with LECOM and other exceptions to

this policy will be considered on an individual basis.

B. Specific course requirements are as follows:

- Biology: A minimum of eight semester hours, of which a minimum of two hours of laboratory work must be completed. These eight hours may consist of general biology, anatomy, physiology, or molecular biology.
- Inorganic Chemistry: A minimum of eight semester hours, including two semester hours of laboratory work.
- Organic Chemistry: A minimum of eight semester hours, including two semester hours of laboratory work.
- Physics: A minimum of eight semester hours, including two hours of laboratory work.
- English: A minimum of six semester hours of composition and literature.
- Behavioral Sciences: A minimum of six semester hours of courses in the behavioral sciences; i.e., psychology, sociology, or anthropology.

LECOM recommends that prospective students consider taking advanced coursework, such as biochemistry, physiology, microbiology and/or anatomy.

APAP Applicant Pre-requisites

Many APAP applicants will have taken all of the standard medical school pre-requisites of physics, organic and inorganic chemistries. However, each application will be assessed individually with courses completed under accreditation standards for Physician Assistant Programs being considered and approved as substitutions as appropriate.

APAP applicants should submit MCAT scores. Recognizing that alternative measures can be used demonstrate the ability to handle challenging curriculum and that GPA is more predictive of successful completion of medical school, LECOM has piloted the Academic Index Score, which uses undergraduate and graduate GPAs in formula calculation with ACT and/or SAT Critical Reading and Math scores, may be used in consideration of offering interviews for applicants who have not taken the MCAT.

2.1.3. Application Procedure

Individuals interested in applying to the College must complete an American Association of Colleges of Osteopathic Medicine Application (AACOMAS) and a LECOM Supplemental Application. Separate AACOMAS and Supplemental applications must be submitted for the Erie campus (including LECOM at Seton Hill) and Bradenton campus.

2.1.3.1. AACOMAS Application

LECOM participates in a centralized application service, the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS), for the collection of application information. All interested applicants must complete a web-based application. The AACOMAS service collates materials, computes grades and transmits standardized information to the applicant as well as LECOM. AACOMAS takes no part in the evaluation, selection or rejection of applicants. Individuals interested in applying to LECOM should begin the application process by applying to the AACOMAS On-Line Application at www.aacom.org. Additional information about AACOMAS and the AACOMAS On-Line Application can be obtained by contacting: AACOMAS, 5550 Friendship Boulevard, Suite 310, Chevy Chase, MD 20815-7231, (301) 968-4100.

2.1.3.2. LECOM Supplemental Application

LECOM requires all applicants to submit a \$50.00 non-refundable application fee. Once LECOM receives the AACOMAS Application, applicants will receive an email message providing information and instructions to complete the Supplemental Application. The email message will include a username and password to access the secure LECOM Candidate Portal to complete the LECOM Supplemental Application and submit the \$50.00 non-refundable application fee. Payment of the \$50.00 application fee is required at the time the application is submitted. Applicants are encouraged to complete their applications as early as possible to receive early consideration for an interview.

The College uses a rolling admissions cycle. As candidates are interviewed, notifications of acceptance are mailed to selected applicants. All supplemental applications and supporting materials, including letters of recommendation, must be received by the Office of Admissions by April 1 of the application year. Limited interview dates are available after April 1 of the application year.

The following documents must be submitted to LECOM to complete the application file:

- A letter of recommendation from an osteopathic physician
- A letter of recommendation from a pre-professional committee, or
- Two letters of recommendation from undergraduate or graduate college/university science professors.

The submission of supplementary materials is mandatory and non-negotiable.

2.1.4. Admissions Information

For further information about the College of Medicine, please contact the Office of Admissions for LECOM Erie and Seton Hill at (814) 866-6641 or (941) 756-0690 for the Office of Admissions, LECOM Bradenton. Accepted students who are found to have provided false

written or oral information or falsified/modified documents to LECOM are subject to expulsion.

2.1.5. Transfer Policy for College of Medicine

LECOM has established a transfer policy and procedure that is consistent with its educational mission and objectives for students requesting to transfer from other medical colleges or schools of pharmacy.

Students requesting to transfer into LECOM must provide the following:

- A. A completed AACOMAS application.
- B. Official transcripts from all previously attended institutions.
- C. A letter from the applicant indicating why they wish to transfer to LECOM and explaining any circumstances resulting in their request for a transfer from their current institution.
- D. A letter from the Dean of all professional schools attended giving the enrollment status of the student and the terms of withdrawal from that institution.
- E. Letters of recommendation from two (2) faculty members at the institution where the student is currently enrolled.
- F. LECOM Supplemental Application and \$50.00 non-refundable application fee for the College of Medicine.
- G. Additional documents or letters of evaluation as determined by the Admissions Committee may be requested.
- H. Official copy of all MCAT scores.

Acceptance of transfer students is dependent upon the student's qualifications, curricular compatibility and available space in the class they wish to enter. Prior coursework will be honored to the extent that it is compatible with the required curriculum. Additional coursework may be required to satisfy LECOM's curriculum. The Admissions Committee will evaluate prior course work to determine credit hours accepted for transfer.

Applicants requesting to transfer into the College of Osteopathic Medicine, must be in good standing in their first or second year at an accredited osteopathic medical school or at an allopathic medical school accredited by the Liaison Committee on Medical Education (LCME). Students requesting to transfer to LECOM from LCME medical programs must complete all required courses in osteopathic manipulative medicine before graduation.

Students accepted for transfer must minimally complete their last two (2) years at LECOM. Applicants requesting to transfer into LECOM must be eligible for readmission to the school or college they are currently attending.

Applicants requesting to transfer into the College of Osteopathic Medicine after completing two (2) years of medical school must pass the National Board of Osteopathic Medical Examiners, Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA) Level 1

Examination prior to transferring to LECOM.

2.1.6. Tuition and Fees – College of Medicine

Tuition and fees are due and payable by registration, unless special arrangements have been made with the Accounting Office. The College reserves the right to change tuition and fees without advance notice and to make such changes applicable to present as well as future students.

Application Fee - (LECOM Supplemental)	\$50
<i>Nonrefundable fee (payable upon submission of application for admission)</i>	
Matriculation Fee	\$1,500
<i>Nonrefundable fee (payment credited to the tuition fee upon matriculation)</i>	
Bradenton Tuition (FL Resident)	\$29,480
Bradenton Tuition (Out-of-State Resident)	\$31,610
Erie (All students)	\$31,030
Seton Hill (All students)	\$31,210
Curriculum Fee	\$300
Technology Fee	\$300
Graduation Fee	\$250
Student Government Fee	\$50
Fourth Year Student ERAS fee	\$65
Disability Insurance (Mandatory)	Age Dependent
Health Insurance (Mandatory Unless Covered)	\$3, 000

2.1.7. Additional Fees

Late Payment Fee (per week)	\$50
Breakage Fee	Cost of replacement
<i>Loss or damage to College property and equipment is charged</i>	

to the student(s) responsible.

Transcript Fee	\$5
Student Identification/Key Card – Replacement	\$25
Remediation Course Fee (<i>depends on course length</i>)	\$500/ max
Remediation Exam Fee	\$100

2.1.8. Curriculum

LECOM is an innovative leader in instructional approaches and content leading to the D.O. degree. This commitment occurs at all levels, from curriculum planning for all years of the D.O. program, to faculty-developed multimedia tutorials. Clinical training sites are as varied as student interests. Our students speak highly of LECOM for their personal and professional development, as well as for their knowledge and skills. Emphasis is placed on taking responsibility for making informed choices about learning, in general, and patient care in particular.

2.1.9. Erie Learning Pathways

For the D.O. Program, students at Erie may select one of five learning pathways for the preclinical sciences of the osteopathic medical curriculum:

- Lecture/Discussion Pathway (LDP)
- Problem-Based Learning Pathway (PBL)
- Directed Study Pathway (DSP)
- Primary Care Scholars Pathway (PCSP)
- Accelerated Physician Assistants Pathway (APAP)

Students under APAP will study under the LDP, PBL or DSP curricula and have the option of doing PBL at LECOM at Seton Hill. At LECOM Bradenton all students participate in PBL.

2.1.9.1. Pathway Change Policy and Procedure

If a matriculated student at Erie wishes to change his/her declared pathway, the student must follow the procedure outlined below:

- Meet with the current pathway director to discuss reasons for changing pathways.
- Meet with the prospective pathway director to discuss the student's desire to enter a new pathway.

- Submit a formal written request to the Associate Dean of Preclinical Education outlining the desired change in pathway.
- Meet with the Associate Dean of Preclinical Education outlining the requested change in pathway.

The current and prospective pathway directors will advise the Associate Dean of Preclinical Education as to their appraisal of the suitability of the proposed transfer. The Associate Dean of Preclinical Education will make a recommendation to the Dean of Academic Affairs who will make the final determination as to whether the pathway change is approved. The Associate Dean of Preclinical Education will notify the student and program directors of the decision regarding the request for a pathway change.

Pathway changes may only be made at the following times during the academic program and will be dependent on availability:

LDP, DSP, and APAP Pathways

- End of Anatomy Course
- End of first semester
- End of the first year
- If the student is repeating the first or second year
- If a student changes from the APAP pathways once rotations have started, the student must appear before the SPG Committee for approval. The SPG Committee, Associate/Assistant Dean of Clinical Education and the Director of Student Affairs will determine the sequence and number of rotations that must be completed to meet the graduation requirements of LECOM.

PBL Pathway

- If the student is repeating the first year
- On completion of the Anatomy course in the first semester

PCSP Pathway

- Accepted students wishing to switch from the PCSP pathway prior to matriculation are switched to alternate status.
- Students wishing to leave the PCSP pathway after matriculation must withdraw from LECOM and reapply for admission.

(NOTE: Students may only transfer into PCSP at the end of Anatomy, and no later than the date of the final exam for that course).

Formal written requests to change pathways must be made at least two weeks prior to the expected start date of when pathway changes may occur. A student is only permitted one change of pathway. Students experiencing difficulty in any pathway may be required to change pathways.

2.1.10. The Lecture/Discussion Pathway

Lecture presentations and group tutorials are the heart of the Lecture/Discussion Pathway. Students usually spend the morning in lecture sessions and the afternoon in a combination of lectures, laboratories, workshops, group discussions, and directed study where they have ample access to faculty members in the basic and clinical sciences.

The Lecture/Discussion Pathway is ideal for those students who:

- Learn well from a combination of presentations and readings; or
- Are more comfortable in a teacher-directed environment.

The Lecture/Discussion Pathway is composed of the **Core Curriculum (Phase I)** and the **Systems Curriculum (Phase II)**.

2.1.10.1. Core Curriculum – Phase I

The beginning of the first year is designed to introduce students to the basic concepts of Gross Anatomy, Embryology, Histology, Biochemistry, Immunology, Microbiology, Pathology, Pharmacology, and Physiology. Coursework and clinical training in Osteopathic Principles and Practice (OPP) and History and Physical Examination are also interwoven throughout the Phase I curriculum. An introduction to medical ethics is also presented parallel to the core curriculum. During Phase II of the curriculum, each of the basic sciences is further developed, thus providing continuity in the educational process, which promotes "learning" rather than "memorization".

Lecture Discussion Pathway Course Titles and Credit Hours

BCH 1003 – Biochemistry Core I – 3.0 Credit Hours; BCH 1005 – Biochemistry Core II and Medical Genetics – 2.0 Credit Hours

The Biochemistry Core Courses are designed to provide medical students with a basic understanding of the biochemical principles which underlie normal and abnormal physiological processes. These principles are the foundation for the medical explanation regarding molecular mechanisms of many clinical disorders. Throughout the course, clinical correlations are introduced to illustrate the linkages between basic biochemical principles, and human disorders. This course will also provide the student with a broad base of knowledge to help facilitate his/her continuing medical education.

The Biochemistry Core Course is divided into two distinct courses: Biochemistry I and Biochemistry II (including medical genetics). Biochemistry I, taught in the first semester of the first year, will provide the student with basic tenets of biochemistry and introduce the student to various metabolic pathways of the body, and diseases that occur as a result of dysfunction.

Biochemistry II and Medical Genetics, taught in the second semester of the first year, build upon the information learned in Biochemistry Core I and fully prepare the students for special

biochemistry topics that are presented throughout each of the 10 organ systems. In addition, the medical genetics portion of the curriculum covers such topics as: autosomal dominance and recessive inheritance, sex-linked and mitochondrial inheritance, clinical cytogenetics, key disorders of metabolism, immunogenetics, developmental genetics, cancer genetics, multifactorial inheritance, and gene therapy.

CLB 1004 – Histology - 1.0 Credit Hour

Histology introduces the student to the structure and function of cells and the organization of cells into basic tissues. Emphasis is placed on the structural specialization, function, and interaction of cells in forming the four basic tissues, and the study of the structural arrangements of these basic tissues in organs. Laboratory sessions focus on the organization and identification of tissues. Systems histology further integrates these tissues into functional organ systems.

ANT 1004 – Clinical Human Gross Anatomy – 9.0 Credit Hours

Clinical Human Gross Anatomy involves the study of the structure and function of the human body. This is accompanied by an abundance of clinical correlations to prepare students for systemic study of the body, their board exams, clinical rotations and cases/scenarios they will encounter as a physician. The Human Gross Anatomy course includes lectures, problem sessions and laboratory sessions. However, models, radiographs, computer software and special demonstrations are used to facilitate learning. The knowledge gained from these experiences lead the student to develop a fine appreciation for not only the structure of the human body, but also the interrelation of its parts. Throughout the course, emphasis is placed on structure-function relationships and the clinical applications of anatomical knowledge.

EMB 1001 – Human Embryology – 1.0 Credit Hour

Embryology is the study of developmental anatomy, beginning with the development of gametes and fertilization through the time of birth. The Human Embryology course consists of an independent 17-hour lecture course taken in parallel with Human Gross Anatomy and Histology during the first 12 weeks of the curriculum. This course exposes the student to a detailed account of early development and development of the organ systems.

Systems Embryology consists of approximately 12 lecture hours delivered during Phase II of the curriculum. The embryology of each organ system coincides with a review of the gross anatomy of the system under consideration. In the Systems Embryology lectures, more specialized embryological processes related to each organ system will be discussed. For the sake of reinforcement, material presented in Systems Embryology will overlap with that presented in the Core.

MCB 1001 – Microbiology/Immunology – 4.0 Credit Hours

Medical Microbiology and Immunology is designed to introduce the student to core concepts in immunology and infectious diseases. Specifically, in the immunology component, students learn the basic concepts of immunology such as the innate and acquired immune systems. The focus of the course is on the immune response to various microbial agents as well as the failures of the immune system such as hypersensitivity, autoimmunity, immunodeficiency and transplantation reactions.

The Microbiology section of the course is designed to provide the student with knowledge of infectious diseases, the organisms responsible for and the response of the body to the presence of these agents. The structure, function, and genetics of bacterial and viral organisms and their relationships to pathogenicity will be discussed. Students will be introduced to the groups of pathogenic organisms including prions, viruses, bacteria, fungi, and parasites. Particular emphasis will be placed on the bacterial agents associated with the infectious diseases most commonly seen by the osteopathic primary care physician. The virulence mechanisms and laboratory identification features will be covered during this course, with more in-depth coverage of the disease process of these organisms occurring during the systems. The prions, viruses, fungi, and parasites will be discussed in the system with which they are most closely associated. Laboratories introduce students to aseptic techniques and proper handling and disposal of hazardous materials. In addition, the students become familiar with some of the most commonly used tests for laboratory identification of bacterial pathogens.

Osteopathic Principles and Practice (OPP):

OPP 1001 – Semester 1, Year 1 – 4.0 Credit Hours

OPP 1002 – Semester 2, Year 1 – 3.0 Credit Hours

OPP 1003 – Semester 1, Year 2 – 3.5 Credit Hours

OPP 1004 – Semester 2, Year 2 – 2.0 Credit Hours

The Osteopathic Principles and Practice course is designed as an introduction to the basic philosophy, principles and practice of osteopathic health care. The course is offered continually throughout the four semesters of the first two years of study. Emphasis is placed on the sequential development of palpatory diagnostic and therapeutic skills used to assess health and disease. The overall course integrates the osteopathic philosophy of patient care with the Systems approach of medical education. The course teaches osteopathic philosophy, problem solving and patient management, and how to incorporate multiple osteopathic manipulative techniques as appropriate, including muscle energy, fascial release, high velocity - low amplitude, counterstrain, articular techniques, trigger point and osteopathic medicine in the cranial field. Application of these principles and practice continues throughout the clinical rotations.

PTH 1003 – Pathology – 1.0 Credit Hour

Pathology is the science that seeks to provide a bridge between the other basic sciences and the clinical sciences. It involves study of the nature of disease, its causes, courses, complications and sequelae. This Core course provides an introduction to the basic changes in the morphology of cells, tissues, and organs in diseased states. Extensive exposure to clinically relevant topics helps the student to differentiate abnormal from normal, and to correlate the clinical aspects of these alterations. Cell injury and cell death, inflammation, repair processes, hemodynamic changes and chemical and physical injuries are also discussed. Throughout the first two years, pathology is represented in each of the Systems to discuss the pathologies peculiar to and characteristic of the various systems of the body.

PHC 1002 – Pharmacology – 2.0 Credit Hours

Core Pharmacology is an introductory series of lectures designed to orient medical students to

the effects of drugs on humans in both normal and pathologic states. The first portion of the course deals with general principles in pharmacology, including drug absorption, distribution, and elimination, pharmacodynamics and autonomic pharmacology. The second portion of the course focuses on chemotherapeutic agents used in pharmacological principles previously presented. Concepts and principles, which are important for the rational evaluation and utilization of drugs, are introduced for application in future clinical scenarios. Pharmacotherapeutics is included throughout to complement subsequent presentations.

PHY 1010 – Physiology – 3.0 Credit Hours

Physiology presents an integrated approach to the fundamental concepts of systems physiology and overall homeostatic balance. Basic physiological terminology and concepts are introduced and clinically relevant examples of homeostatic control are presented. An overall understanding of the homeostatic functions of the autonomic nervous system and how physiological cell membranes regulate intercellular communication via ionic (electrical) conduction, as well as the maintenance of the body fluids, is essential to understanding the body as a whole. The cellular functioning of skeletal, cardiac, and smooth muscle is also discussed. The Core course is designed to provide first-year students with a solid foundation of basic physiological principles that will be built upon in the subsequent Systems courses and clinical applications.

2.1.10.2. Systems Curriculum – Phase II

The systems curriculum begins in the second semester of the first year and continues throughout the second year.

An understanding of the etiology, pathophysiological ramifications, current diagnostic capabilities, and treatments of disease is fundamental to the development of the complete osteopathic physician, as well as to the systems approach of medical education. With this premise, the basic and clinical science components of the LECOM Systems Curriculum concerned with each particular organ system of the body are integrated in classroom and in small group instruction/discussions.

Instructional materials presented within each particular system expand upon basic principles mastered during the Core Curriculum. Preclinical topics consider each respective system from viewpoints of the basic science disciplines of anatomy, biochemistry, microbiology, pathology, pharmacology, and physiology. As a complement, clinical perspectives are offered from the point of view of both the primary care physician as well as the respective specialist. This format of presentation not only promotes a better learning environment due to extensive integration/correlation of course material, but also provides a “real life” view of contemporary healthcare.

Physicians must be acutely aware of the interrelationships between the practice of medicine and the business of medicine. The areas where these intersect are identified within the Healthcare Management course, where emphasis is also placed on understanding managed care treatment protocols.

Importantly, clinical considerations are presented and integrated with the practical application of basic science principles. Practical knowledge acquired from the History and Physical Examination is reviewed, examined, and discussed within a clinical context. Other instructional modalities, proceeding concurrently within each respective system, are designed to reinforce, complement, and expand upon the actual coursework comprising that System. These modalities include, but are not limited to, Geriatric Medicine, Public Health and Preventative Medicine, Physical and Rehabilitative Medicine, Medical Ethics, Medical Jurisprudence, Emergency Medicine, Radiology and Pediatrics. Important aspects of Family Medicine and other presentations are introduced throughout the Systems as appropriate. The osteopathic approach to patient care is continually emphasized, both philosophically and in practice, from the first day of class through graduation by means of lectures and laboratory demonstrations of manipulative techniques. Concepts of osteopathic philosophy and practice are included in all aspects of educational programs whenever possible.

2.1.10.3. Systems Courses

First Year

- SYS 1001 – Musculoskeletal System – 5.0 Credit Hours
- NAT 1003 – Basic Neuroscience – 5.5 Credit Hours
- NAT 1004 – Clinical Neuroscience – 7.0 Credit Hours

Second Year

- SYS 1004 – Cardiovascular System – 9.0 Credit Hours
- SYS 1010 – Respiratory System – 5.0 Credit Hours
- HMO 1002 – Hematology/Oncology System – 3.5 Credit Hours
- SYS 1003 – Renal System – 5.0 Credit Hours
- SYS 1006 – Digestive System – 7.5 Credit Hours
- SYS 1007 – Endocrine System – 3.0 Credit Hours
- SYS 1009 – Reproductive System – 5.0 Credit Hours
- SYS 1005 – Integumentary System – 3.0 Credit Hours

2.1.10.4. Non-System Courses

CLS 1001 – Advanced Cardiac Life Support (A.C.L.S.) – 1.0 Credit Hour

A.C.L.S. is presented at the end of the second year. This training program sponsored by the American Heart Association, is designed to help the students achieve a better understanding of their roles as future players in the cardiopulmonary resuscitative team. The prerequisite is Basic Life Support (B.L.S.), which students have during History and Physical Examination.

History and Physical Examination Series

The History and Physical Examination series represents a progression of clinical skills advancing the students through history taking, the physical examination, and preparation for rotational years through acquisition of procedural skills. The series is divided into four individual courses, each

building upon the previous, presented over the four semesters of the first two years of medical school.

HPO 1006 – History and Physical Examination I – 1.5 Credit Hours

The first course in this series focuses on history taking and teaches the art of obtaining and documenting an accurate history from patients as they present in a clinical setting. The primary aim of this component of the course is to identify the components of a complete history and develop interviewing skills, which allow the physician to precisely identify pertinent history which will later direct the physical examination. The student will be presented with methodology, vocabulary and assessment skills that are necessary for patient encounters. The lecture components teach the art of interviewing, difficult patient encounters and humanistic skills. Practical sessions utilize history taking flows where students are paired, working through clinical scenarios via roles of patient and physician. Students also participate in standardized patient encounters. At the completion of the course, the student will demonstrate competency in obtaining histories in clinical presentations.

HPO 1007 – History and Physical Examination II – 2.0 Credit Hours

Using the sensory faculties, this second course of the series teaches physical examination of patients. Performing concise physical examinations in concert with taking accurate histories provides a solid foundation, which allows the physician to build an appropriate differential diagnosis based on the patients' complaints. This course continues to present methodology, vocabulary and assessment skills that are necessary for examination with correlation to osteopathic principles, therapy and basic sciences. It also provides instruction on documentation of the physical examination. Physical examination flows divide the body into a logical system-based approach. These flows delineate a step-wise approach to examination allowing for completeness of the examination, however, a common sense approach will be emphasized encouraging the student to “think” about the process of physical examination, and not memorizing a list of exam components. At the completion of this course, students have the ability to perform complete physical examinations.

HPO 1008 – History and Physical Examination III – 1.5 Credit Hours

This third course is a continuation of history and physical examination focusing on mock patient interactions where student pairs will again assume the status of the patient and physician, alternately, while working through clinical presentations. Where students had previously performed complete system physical examinations, they are now given a chief complaint from which they perform specific history gathering and physical examinations as represented by comprehensive flows. The student further learns to develop a differential diagnosis and discusses the plan with the patient. These flows model brief patient encounters typically encountered by physicians in daily practice. Standardized patient encounters provide feedback to students on their humanistic skills.

At the completion of this course, students can complete a typical 15-minute office visit, form a differential diagnosis, develop a plan with the patient and document the encounter. Students will also be prepared for the COMLEX Level 2-PE board examination.

HPO 1009 – History and Physical Examination IV – 2.0 Credit Hours

This course is the completion of the history and physical examination series and prepares the student for clinical rotations of the MSIII and MSIV training years. Having documented competency in obtaining histories and physical examinations, all students are now prepared to participate in clinical preceptor encounters. These encounters occur at the clinical preceptor's offices where students will have the opportunity to actively participate in actual patient encounters, obtaining histories and performing examinations. Clinical Skill Competencies will include instruction and demonstration of competency in performing aseptic technique with gowning and gloving, suturing, venipuncture, IV placement and injections. Students also experience specialized patient encounters via Micro SimMan and standardized patient encounters. Students also perform and document complete history and physical examinations on hospitalized patients.

Health Care Management:

HCM 1005 – Semester 1, Year 1 – 1.0 Credit Hour

HCM 1006 – Semester 2, Year 1 – 1.0 Credit Hour

The first priority of all healthcare professionals has always been to provide high quality patient care. Today's physicians, however, are expected to assume further executive and managerial responsibilities in addition in their clinical duties. Amid an increasingly regulated legal environment, physicians face a myriad of business decisions, strategic planning issues, contract negotiations, and compliance mandates. In this regard, this course will introduce the osteopathic medical student to management, marketing, accounting, financial, and economical concepts as they relate to the health care industry. Health Care Management is presented in the first year of the curriculum and during clinical rotations.

GER 1001 – Geriatric Medicine – 1.0 Credit Hour

Geriatrics provides instruction to the student on special problems of the elderly with emphasis on improving clinical skills to deal with the unique diagnostic, therapeutic, and psychosocial problems of older adults. Various topics related to the geriatric patient are also integrated into the Systems. With the knowledge obtained from this course, the student will be able to make informed decisions about the availability of healthcare to geriatric patients and improve the physical, psychological, and social well-being of older adults in his/her practice.

LAW-1001 - Medical Jurisprudence - 1.0 Credit Hour

Medical Jurisprudence introduces osteopathic medical students to major legal facts regarding medical practices, which may vary from state to state. Using the applicable federal and state laws as a base, the general rules of medical practice are presented. The obligations of the physician to the community, the patient, the hospital, colleagues, and society form a small but important part of the study. The course discusses duties and responsibilities, the medical and legal aspects of medicine, standards of care, vicarious liability and negligence. Special attention is made to HIPAA and the duty of confidentiality.

BHS-1005 - Human Sexuality - 1.0 Credit Hour

The Human Sexuality course develops a sensitivity to and understanding of the sexual attitudes and experiences of varied populations. The psychosexual components and sociocultural aspects

of human sexual behavior are explored. Role-playing and other modalities of presentation are offered during this course.

PUB 1001 – Public Health and Preventative Medicine – 1.0 Credit Hour

Public Health and Preventative Medicine provides second year osteopathic medical students with an introduction to selected issues and methods with respect to public health, and an appreciation of research epidemiology and prevention. Though most students will not enter full-time public health careers, public health issues impact every physician's practice. Knowledge of how individual health issues affect (and are impacted by) the community is essential for the future physician.

BHS 1003 – Introduction to Behavioral Health – 2.5 Credit Hours

Introduction to Behavioral Health is offered in the second semester of the second year and is designed to provide a basic overview of psychiatry and psychology while preparing a primary care physician to recognize and manage psycho-social diagnoses. The goal of the course is to familiarize students with a diversity of nomenclature involved with psychiatric diagnoses and psychopharmacology. Students will practice the skill of conducting mental status examinations with standardized patients.

Substance abuse is a subcomponent of the Introduction to Behavioral Health course. The student is introduced to the complex issues relating to alcohol and drug abuse. The pharmacology of the major drugs of abuse is presented, followed by detailed considerations of the causes, manifestations, and treatment of alcoholism and various forms of drug dependence. The co-morbidity of substance abuse and other psychiatric disorders is presented.

ADM 1011 – LECOM Preclinical Review – 4.0 Credit Hours

This course serves as a review of the basic science and the osteopathic medicine curriculum from the first two years. It functions to refocus, revisit and reinforce critical concepts important for a physician in training.

Emergency Medicine

This course is taught as a series of lectures interspersed throughout Phase II with appropriate emergencies discussed within each System. The purpose is to educate osteopathic medical students in the basics of emergency medicine, utilizing a structural and functional approach wherever possible. Areas covered in detail are toxicology, cardiovascular emergencies, respiratory emergencies and musculoskeletal trauma. All students will receive Basic Life Support (B.L.S.) instruction, which includes certification in C.P.R. during the first year and receive Advanced Cardiac Life Support (A.C.L.S.) training at the end of their second year.

Environmental Medicine

Environmental Medicine is a component of each System. Topics such as the toxicological aspects of heavy metals, contaminants in water, air, and soil, exposure to hypo-or hyperbaric environments, exposure to extreme cold or heat, and other areas of medical importance are discussed in a lecture or case presentation format.

Pediatrics

Pediatrics is taught throughout the Systems. Recognizing that the child is not just a small adult, the pediatric presentations throughout the various systems are devoted to the special problems of childhood. In addition, adolescent medical care is presented within the Reproductive System. Correlations among the pediatric, adult, and geriatric patient population are discussed as appropriate.

Spirituality, Medicine and Ethics

The field of biomedical ethics covers issues in areas such as genetics, fertility, reproduction, treatment refusal and withdrawal, death and dying, organ procurement and transplantations, human and animal research, justice and rationing, environment and public health.. It is a field that asks questions about the direction which medicine will take with the advent of new technologies, and about related analysis employed in medical ethics. The aim of the course is to provide the student with a systematic framework for resolving ethical dilemmas encountered in the practice of medicine. Ethical issues related to medical practice are also discussed within the respective systems as appropriate.

2.1.11. The Problem-Based Learning Pathway at Erie and Seton Hill

In Problem-Based Learning (PBL), studies are based around patient cases that provide the context for acquiring the underlying knowledge and understanding of medical science. This method of learning promotes critical thinking and clinical reasoning skills, and retention of knowledge is enhanced through its contextual nature. Since the PBL process principally involves small group discussion and personal study, it also strongly promotes interpersonal skills and independent learning. Consequently, PBL is widely considered to facilitate the development of key professional competencies.

2.1.11.1. Program Description

The Problem-Based Learning (PBL) Pathway at LECOM emphasizes self-directed learning and a team approach. Following an initial course of 12 weeks in Anatomical Sciences, during which time PBL is a minor component, students in the PBL Pathway then study the basic medical sciences almost completely by PBL, which occupies about 70% of the total preclinical curriculum.

Groups of eight or nine students, each with a faculty facilitator, meet three times each week to study a sequence of more than 70 patient cases in paper presentation. The faculty members do not teach in the traditional sense, but facilitate the efforts of the student group in understanding the cases for themselves. Of course, all faculty members are available for consultation outside student sessions, and supplementary enhancement of understanding is also available, on request, through occasional workshops or “enrichment sessions” when required.

During the course of studying each case, learning issues – topics the students should study in

greater depth in order to understand the case and the underlying medical science – are identified. Between meetings, students work independently, or in small, informal groups, on these learning issues, which later form the basis for their examinations. It is essential to study these topics in a timely manner while proceeding through the cases, so that learning is truly contextual and each case is fully understood.

Thus, the **PBL Pathway is ideal for students** who:

- Are pro-active and self-directing
- Are comfortable with flexibility in their learning
- Learn best through reading and small group discussion

The Tutorial Process in Problem-Based Learning

The heart of a Problem-Based Learning Pathway is the tutorial group (generally 8 students plus one faculty facilitator). Each member of the group has responsibilities, which are important if the process is to succeed (See Roles of Participants). Members must feel free to challenge one another in a constructive manner and feel comfortable with being challenged, but without feeling personally threatened or insulted. In the early stages of group dynamics, this is difficult because members are uncomfortable with this behavior, but with familiarity, it becomes an enjoyable exercise, which serves to help the group and its members focus on those areas where their knowledge must be extended.

The PBL cases are based on actual patients. The Progressive Disclosure Model is used. Initially, only the name, age, gender and chief complaint of the patient are made available. Following discussion, the group will request additional information, such as the results of a history and physical examination. Additional discussion follows and the students begin to form an initial differential diagnosis. After this discussion, the group will request new data, such as the results of an EKG or an MRI, and again, discussion follows. During the process, the students raise "learning issues", topics that they need to know more about. Following completion of a case, the students submit their final learning issues to the PBL office. The final learning issues serve as the basis for examination questions.

The facilitator will monitor the direction of the group, and redirect them by asking appropriate questions for discussion if they digress too far, but this is done only if absolutely necessary. The students are given the latitude to pursue unproductive directions, and decide for themselves that a particular learning issue was not germane to understanding the patient's problems.

The Group Tutorial Process

Initially, a case will require several sessions to complete. At the beginning of a PBL case study, all group members are given the age, gender and chief complaint of the patient. One student plays the role of patient and he/she is given full details of the patient history. Another student plays the role of physician, interviewing the patient to obtain the history, and obtaining the

results of a physical examination from the facilitator. The student group, by now, should have drawn up a range of differential diagnoses – although, before they gain experience, this may be merely a list of affected systems. They then proceed as a team, requesting various further data, such as laboratory tests, or diagnostic procedures. The appropriate information is progressively disclosed by the facilitator in response to student requests. This information may be in the form of tabulated data from laboratory tests or, for example, a radiograph or an EKG.

Supplementary workshops on diagnostic procedures and their applications and separate classes dealing with history taking and physical examination of patients are also provided in the PBL program to facilitate this process for the student.

Outside the tutorial session, the students engage in independent and small group study, addressing the learning issues adopted in the group session. Appropriate resources for acquiring this knowledge include textbooks, journals, microscope slides, X-rays and tomographic scans, audio-visual materials, and designated resource faculty, who may upon request provide information on a topic.

When the group meets for its next tutorial session, one student will present the patient using a format in which the known subjective and objective information is summarized and assessed, and a plan for continued management is proposed. This will initiate continued discussion, not only of the new knowledge and its use in evaluating their hypotheses, but also for the seeking of more information about the patient. In light of the new information they approach the case anew, listing new ideas, formulating new hypotheses and learning issues, as new case information is provided and added to that which they already have. This is followed by another group self-evaluation, another period of independent study, and another meeting. In the early stages of the program, this process may be repeated several times during a single case, as additional learning issues are added until the group is satisfied that it has gained sufficient knowledge of basic scientific concepts to understand the basic mechanisms underlying the clinical picture presented in the case. At this time, a final self-evaluation occurs, when each member of the group also evaluates the performance and contribution of every other member.

Role of Participants

The facilitator is responsible for providing the case information at the appropriate times during the discussion. He/she also assures that each member of the group participates by prompting, if necessary, the more timid members. In addition, the facilitator monitors how accurately the group is addressing the desired objectives.

The facilitator will also evaluate the efforts of the group members in terms of their willingness to contribute and willingness to complete their independent study to the extent that they are able to contribute to the group effort.

The students have the responsibility to participate actively in the discussions of the group. They must be willing to both give and accept constructive criticism, to admit to knowledge deficiencies where they exist, and to conscientiously complete their independent study

assignments so as to contribute effectively to the group effort. Students also have the responsibility to honestly evaluate the activities of each other, themselves, the facilitator, and the group as a whole. Only in this way is improvement possible.

Student Assessment

In the PBL component of the program, cases are studied in sets, each followed by an examination which tests knowledge and understanding of the learning issues relating to the cases. The students select learning issues in the form of chapters, or sections, of required texts for the course, so that the material they are expected to study for each examination is unambiguously defined. The examinations comprise multiple-choice questions, mostly written in the style of the medical examining boards. A small, additional component of the student assessment is derived from evaluation of their performance in tutorial sessions by the facilitator.

Problem Based Learning (PBL): CREDITS

PBL-1001 - Semester 1 Year 1 – 10.0 Credit Hours

PBL-1002 - Semester 2 Year 1 – 21.5 Credit Hours

PBL-1003 - Semester 1 Year 2 – 26.5 Credit Hours

PBL-1004 - Semester 2 Year 2 – 14.5 Credit Hours

Erie and Seton Hill PBL

ANNUAL COURSE SEQUENCE AND CREDIT HOURS

Year 1 – Semester 1

ANT-1003	Clinical Human Anatomy	9.0
CLB-1004	Histology	1.0
EMB-1001	Embryology	1.0
HCM-1005	Healthcare Mgmt I	1.0
HPO-1006	History & Physical I	1.5
OPP-1001	OPP I	4.0
PBL-1001	PBL I	10.0

Total 27.5

Year 1 – Semester 2

HCM-1005	Healthcare Mgmt II	1.0
PTH-1001	Pathology	1.0
OPP-1002	OPP. II	3.0
PBL-1002	PBL II	21.5
HPO-1007	History & Physical II	2.0
BHS-1005	Human Sexuality	1.0

Total 29.5

Year 2 – Semester 1

GER-1001	Geriatrics	1.0
HPO-1008	History & Physical III	1.5
LAW-1001	Medical Jurisprudence	1.0
OPP-1003	OPP III	3.5
PBL-1003	PBL III	26.5

Total 33.5

Year 2- Semester 2

HPO-1009	History & Physical IV	2.0
OPP-1004	OPP IV	2.0
ADM-1011	LECOM Pre-clinical Review	4.0
BHS-1003	Psychiatry	2.5
CLS-1001	Adv. Cardiac Life Support	1.0
PUB-1001	Public Health/Preventative Medicine	1.0
PBL-1004	PBL IV	14.5

Total 27.0

Pre-Clinical Total Hours 117.5

2.1.12. LECOM Bradenton College of Medicine Curriculum and Course Description

COURSE INFORMATION - YEARS 1 & 2

Problem Based Learning (PBL):

PBL-1001 - Semester 1 Year 1 – 10.0 Credit Hours

PBL-1002 - Semester 2 Year 1 – 21.5 Credit Hours

PBL-1003 - Semester 1 Year 2 – 26.5 Credit Hours

PBL-1004 - Semester 2 Year 2 – 14.5 Credit Hours

PBL is a composite of four courses that uses clinical cases as a framework. PBL requires becoming an active, independent, self-directed learner. PBL cases are only the mechanism for identifying what needs to be learned. PBL is not about solving clinical cases. PBL is about understanding the sciences basic to medicine in each of the cases. These sciences include the following: anatomy (gross anatomy, neuro-anatomy embryology, and histology), behavioral science, biochemistry, genetics, immunology, microbiology, pathology, pharmacology and physiology.

ANT-1009 - Clinical Human Anatomy - 11.0 Credit Hours

Clinical Human Anatomy is a lecture-discussion/prosection course wherein didactic lectures provide the student with knowledge necessary for successful sequential discovery of the structure of the human body. The knowledge gained from this experience leads the student to develop a

fine appreciation for not only the structure of the human body, but also how each part is related to every other part. Clinical correlations are included within the lecture portion of this course to familiarize the student with clinical situations he or she may encounter in clinical medicine. Models, radiographs, computer software and special demonstrations are used to facilitate learning. Emphasis is placed throughout, on structure-function relationships and the clinical applications of such knowledge.

Clinical Examination:

CLE-1002 - Semester 1 Year 1 – 2.0 Credit Hours

CLE-1003 - Semester 2 Year 1 – 2.0 Credit Hours

CLE-1004 - Semester 1 Year 2 – 2.0 Credit Hours

CLE-1005 - Semester 2 Year 2 – 2.0 Credit Hours

Clinical Examination stresses a comprehensive examination of the patient while developing a proficiency in the use of diagnostic equipment. The student learns to assess and correlate the patient findings with the osteopathic structural evaluation.

Osteopathic Principles And Practice (OPP):

OPP-1001 - Semester 1 Year 1 – 4.0 Credit Hours

OPP-1002 - Semester 2 Year 1 – 4.0 Credit Hours

OPP-1003 - Semester 1 Year 2 – 4.0 Credit Hours

OPP-1004 - Semester 2 Year 2 – 3.0 Credit Hours

The Osteopathic Principles and Practice (OPP) course is designed as an introduction to the basic philosophy, principles, and practice of osteopathic health care. The course is offered continually throughout the four semesters of years 1 and 2. Emphasis is placed on the sequential development of palpatory diagnostic and therapeutic skills used to assess health and disease. The course teaches osteopathic philosophy, problem solving and patient management, and how to incorporate multiple osteopathic manipulative techniques as appropriate, including muscle energy, fascial release, high velocity - low amplitude, counterstrain, articular techniques, trigger point, and osteopathic medicine in the cranial field. Application of these principles and practice continues throughout the clinical rotations.

GER-1002 – Geriatric Medicine - 1.0 Credit Hour

Geriatric Medicine provides instruction to the student on special problems of the elderly with emphasis on improving clinical skills to deal with the unique diagnostic, therapeutic, and psychosocial problems of older adults. Various topics related to the geriatric patient are also integrated into the systems. With the knowledge obtained from this course, the student will be able to make informed decisions about the availability of healthcare to geriatric patients and improve the physical, psychological, and social well-being of older adults in his/her practice.

CLN-1002 - Integrative Clinical Nutrition - 1.0 Credit Hour

Integrative Clinical Nutrition is a course for first year osteopathic medical students. Clinical application of nutritional science is emphasized, and the connection between lifestyle choices and disease occurrence elucidated. This course will prepare students for their continued course work in the medical basic sciences and clinical training environments.

ETH-1003 - Medical Ethics/Spirituality in Medicine - 1.0 Credit Hour

The field of biomedical ethics covers issues in areas such as genetics, fertility, reproduction, treatment refusal and withdrawal, death and dying, organ procurement and transplantations, human and animal research, justice and rationing, environment and public health.. It is a field that asks questions about the direction which medicine will take with the advent of new technologies, and about related analysis employed in medical ethics. The aim of the course is to provide the student with a systematic framework for resolving ethical dilemmas encountered in the practice of medicine. Ethical issues related to medical practice are also discussed within the respective systems as appropriate.

HCM-1004 - Healthcare Management - 1.0 Credit Hour

In addition to medical aspects of clinical practice, the well-prepared physician must be cognizant of healthcare issues he/she may face in the future. The Healthcare Management Course is designed to offer insight into many non-medical areas of clinical practice. Topics covered include business issues and terminology, contract law and contract issues, and how to form and manage a practice.

PUB-1002 - Public Health/Preventive Medicine - 1.0 Credit Hour

Public Health provides osteopathic medical students with an introduction to selected issues and methods with respect to public health, and an appreciation of research epidemiology and prevention. Though most students will not enter full-time public health careers, public health issues impact every physician's practice. Knowledge of how individual health issues affect (and are impacted by) the community is essential for the future physician.

BHS-1001 - Behavioral Science/Substance Abuse - 2.5 Credit Hours

The Behavioral Science and Substance Abuse course is designed to provide a basic overview of the subject and to prepare a primary care physician to recognize and deal with patient's behavior and substance abuse problems. The goal of the course is to assist the student in developing personal skills and to provide background knowledge on the use of ancillary personnel and specialized cooperative psychiatric care.

The student is also introduced to the complex issues relating to alcohol and drug abuse. The pharmacology of the major drugs of abuse is presented, followed by detailed considerations of the causes, manifestations, and treatment of alcoholism and other forms of drug dependence. The role of the family physician is discussed, and opportunity is provided for the exploration of attitudes toward substance abuse and possible solutions to the substance abuse problems.

LAW-1001 - Medical Jurisprudence - 1.0 Credit Hour

Medical Jurisprudence introduces osteopathic medical students to major legal facts regarding medical practices, which may vary from state to state. Using the applicable federal and state laws as a base, the general rules of medical practice are presented. The obligations of the physician to the community, the patient, the hospital, colleagues, and society form a small but important part of the study. The course discusses duties and responsibilities, the medical and

legal aspects of medicine, standards of care, vicarious liability and negligence. Special attention is made to HIPAA and the duty of confidentiality.

BHS-1005 - Human Sexuality - 1.0 Credit Hour

The Human Sexuality course develops a sensitivity to and understanding of the sexual attitudes and experiences of varied populations. The psychosexual components and sociocultural aspects of human sexual behavior are explored. Role-playing and other modalities of presentation are offered during this course.

CLS-1001 - Advanced Cardiac Life Support (A.C.L.S) - 1.0 Credit Hour

A.C.L.S. is presented at the end of the second year. This training program sponsored by the American Heart Association, is designed to help the students achieve a better understanding of their roles as future players in the cardiopulmonary resuscitative team. The prerequisite is Basic Life Support (B.L.S.) which is a first year requirement.

Bradenton PBL

ANNUAL COURSE SEQUENCE AND CREDIT HOURS

Year 1 – Semester 1

ANT-1009	Clinical Human Anatomy	11.0
CLE-1002	Clinical Examination I	2.0
OPP-1001	OPP I	4.0
PBL-1001	PBL I	10.0
	Total	27.0

Year 1 – Semester 2

CLE-1003.....	Clinical Examination II	2.0
CLN-1002.....	Integrative Clinical Nutrition	1.0
OPP-1002.....	OPP II	4.0
PBL-1002.....	PBL II	21.5
PUB-1002.....	Public Health/Preventive Medicine	1.0
ETH-1003.....	Medical Ethics/Spirituality in Medicine	1.0
LAW-1001....	Medical Jurisprudence	1.0
	Total	31.5

Year 2 – Semester 1

BHS-1001.....	Behavioral Science/Substance Abuse	2.5
BHS-1005.....	Human Sexuality	1.0
CLE-1004.....	Clinical Examination III	2.0
OPP-1003.....	OPP III	4.0
PBL-1003.....	PBL III	26.5
GER-1002.....	Geriatric Medicine	1.0
HCM-1004....	Healthcare Management	1.0
	Total	38

Year 2- Semester 2

CLE-1005.....Clinical Examination IV	2.0
CLS-1001.....Adv. Cardiac Life Support	1.0
OPP-1004.....OPP IV	3.0
PBL-1004.....PBL IV	14.5

Total 20.5
Pre-Clinical Total Hours 117.0

2.1.13. The Directed Study Pathway

Introduction

The Directed Study Pathway (DSP) is one of five medical curricular choices available at the Erie campus, allowing students to choose a program which best suits their learning style. The DSP is a unique program among medical school curricula and provides significant flexibility for students during their first two years of medical school. In turn, the pathway requires the student to have excellent organizational and time management skills in order to proceed through the curriculum and meet strict examination deadlines.

The DSP stresses the students' self-directed learning capabilities. Compared to the more traditional LDP medical curriculum, which, during the first two years, may involve an average of 25 hours of mandatory class attendance per week, class time is greatly reduced in the DSP.

The Directed Study Pathway (DSP) is appropriate for students who:

- Are self-motivated and self-directed, with good organizational and time-management skills (procrastination is not acceptable);
- Learn best through reading and small group interactions;
- Are responsible enough to utilize the freedom from required attendance at lectures to acquire the necessary knowledge and can balance the demands of academic responsibilities with those of extracurricular activities; and
- Have a strong science or previous clinical background.

Program Description

Initial matriculation at LECOM involves a 12-week, five days per week, group of anatomical science courses including Gross Anatomy, Embryology and Histology, with mandatory attendance. Following this course load, DSP students study other basic sciences using lists of highly structured learning objectives compiled into “module” booklets, used in combination with textbooks and other educational resources, in order to master the materials typically in a small group environment. Students proceed through these modules with certain time limits in place and examinations are administered on specific dates by which time the students are expected to

have mastered all learning objectives outlined in the module.

While primarily based on faculty-directed module study, DSP students may be required to be present on campus two to five days per week in order to attend **classroom and laboratory-based courses** needed to complete the preclinical curriculum (both first and second years). Students are therefore expected to maintain living accommodations near campus to limit the time lost to travel.

Though the program stresses independence, it is very much a closely directed course of study and students meet with faculty members regularly. Faculty are also available to assist individual or groups of students in mastering difficult concepts and materials.

The modules are divided into two curricular categories: “Core” and “Systems”. Core modules deal with fundamentals of basic science while systems modules integrate basic science and clinical disciplines in an organ systems approach to learning. Core modules are utilized during the first and part of the second semesters of the first year, while systems modules begin in the second semester of first year and continue through the full second year. Lecture based courses, including Osteopathic Principles and Practice (OPP), one of the most characteristic courses of osteopathic medical education, are presented throughout the first and second years, joining together members of the DSP with students from the other curricular pathways. If a class, laboratory session, or meeting is listed on the DSP schedule, unless noted otherwise, it is mandatory.

First Year Modules:

BCH 1003 – Biochemistry
BCH 1005 – Medical Genetics
MCB 1001 – Microbiology/
Immunology
PTH 1003 – Pathology
PHC 1002 – Pharmacology
PHY 1010 – Physiology
SYS 1001 – Musculoskeletal
System
NAT 1003 – Basic Neuroscience
NAT 1004 – Clinical Neuroscience

First Year Courses:

ANT 1004 – Gross Anatomy (first
12 weeks of first semester)
CLB 1004 – Histology (first 12 weeks of
first semester)
EMB 1001 – Embryology (first 12
weeks of first semester)
OPP 1001 & OPP 1002 - Osteopathic
Principles and Practices I, II
HCM 1005 & HCM 1006 – Healthcare
Management I and II
HPO 1006 & HPO 1007 – History and
Physical Examination I & II
BHS 1005 – Human Sexuality

Second Year Modules:

Second Year Courses:

SYS 1004 – Cardiovascular System
SYS 1010 – Respiratory System
HMO 1002 – Hematology/Oncology System
SYS 1003 – Renal System
SYS 1006 – Digestive System
SYS 1007 – Endocrine System
SYS 1009 – Reproductive System
SYS 1005 – Dermatology System

HPO 1008 & HPO 1009 – *History* and Physical Examination III and IV
PUB 1001 – Public Health and Preventative Medicine (first semester)
OPP 1003 & OPP 1004 – Osteopathic Principles and Practices III, IV
LAW 1001 – Medical jurisprudence (distance learning, first semester)
CLS 1001 – Advanced Cardiac Life Support (end of second semester)
BHS 1003 – Introduction to Behavioral Science
GER 1001 – Geriatric Medicine

Students from all pathways are integrated into the clinical clerkships.

Advantages of the DSP

In instituting the DSP and PBL learning pathways at LECOM, the College realized that study/learning styles differ among students and that such alternative pathways for learning the basic and clinical sciences of first and second years offers unique advantages to many students. Some of these advantages and some special characteristics of the DSP are:

1. DSP reinforces learning skills needed throughout a physician's career. The program is especially suited for those students who possess strong skills in self-education and time management, and in particular, the ability to efficiently learn without a constant dependence on instructors. All of these are important professional assets to the practicing physician. It should be noted that there is no statistical evidence to demonstrate the superiority of an DSP education over one based on the traditional Lecture-Discussion curriculum, however, most DSP students do believe that the DSP curriculum does aid them in developing learning skills that are necessary for an effective clinical educational experience during their third and fourth years of medical school.
2. DSP involves an active learning process, with students being responsible for their own learning and progress. By practicing the self-discipline necessary to direct their own efforts to achieve mastery of subjects, students receive the self-satisfaction that comes from independent learning, which in turn motivates them to continue learning. In this process, faculty members become facilitators rather than dispensers of knowledge, and are utilized for learning more difficult concepts, consulted for clarification, help in determining additional resources, or to answer specific questions.

3. DSP learning is self-paced, allowing more time to be devoted to areas which a student may find very difficult or wishes to pursue in more depth, while less time may be spent on material already mastered in previous courses. However, examinations are scheduled at specific times.
4. Faculty can use a greater variety of teaching materials. In choosing learning resources for the DSP students, faculty may specify texts, articles, web sites and other audio-visual resources for study. In turn, the module approach provides the freedom for students who want more information to use optional or additional resources for gaining in-depth knowledge in a particular discipline.
5. Directed study is considered by some students to be less stressful as they feel a flexible schedule is less onerous than a rigid one, allowing time to master material before proceeding on to new materials (though with specific deadlines in mind).
6. DSP is suitable for students with families, allowing exceptional students the flexibility to arrange their study time around that of family activities. DSP also allows students to be at home with loved ones during times of illness structuring their schedule to allow time for study on their modules.

Disadvantages of the DSP

Obviously, a special program such as the DSP has certain disadvantages, which may make either the LDP or PBL a better choice for certain students:

1. Students who cannot manage time well may do poorly in the DSP. A DSP student must be well organized and able to set reasonable time schedules for themselves and hold to them with effective study. DSP students must be well disciplined against outside distractions and procrastination. The fixed lecture and exam schedule of the LDP are great motivators to study; some students study more effectively with such a schedule.
2. Students who feel they need to learn everything in-depth, and, accordingly, do exceptionally well on exams when they finally feel prepared to take them, often move too slowly. This is not an effective mode of study in medical school, and especially not for DSP students. These students can be continuously behind schedule and out of synchrony with scheduled examinations, leading to disadvantage number three.
3. If independent study habits are not already well developed, it can take time to develop appropriate study habits for DSP. This use of time to develop such

skills may leave the student with minimal time to master the material and thus create a great disadvantage. Students unfamiliar with the independent study style often require an adjustment period for developing a study approach and learning how to best budget their time, how many notes to take, how to outline the information, how to use the learning objectives and how to determine the relative importance of the mass of information available to them. Some students perform much better with the more regimented LDP approach because these study habits are not as essential within that fairly rigid setting.

The DSP Curriculum Calendar

The DSP curriculum calendar contains specific lectures, meetings and examination times that the students are expected to attend. Entering DSP students begin work on the modules during the fall semester. The calendar is based on five study days per week (though students are expected to dedicate a large amount of their evenings and weekends to study to total about 60-70 hours per week), with the DSP preclinical curriculum to be completed in two years. No courses are scheduled during the summer period between first and second years. Successful completion of the two year DSP program by the set date permits students to take the COMLEX Level 1 Licensure Examination following their second year and to begin their clinical clerkships at the same time as the LDP and PBL students.

2.1.14. Accelerated Physician Assistant Pathway

Introduction

The Accelerated Physician Assistant Pathway (APAP) is another innovative pathway which accelerates the medical school curriculum for certified physician assistants who seek to obtain Doctor of Osteopathic Medicine degree.

Physician Assistants undergo a rigorous didactic medical curriculum as well as at least one year of clinical rotations to obtain the entry level, bachelor or master's degree for professional certification. Many physician assistants wish to become physicians citing the desire to practice independently, the need for professional growth and development, the need for increased medical knowledge and the ability to do more for their patients as the most common reasons to do so.

Growth in demand for primary care (Family Medicine, General Internal Medicine, and General Pediatrics) physicians will increase by more than 15 percent over the next decade. As many PAs chose to work in primary care, they represent excellent candidates to become primary care physicians. APAP currently has twelve slots for this pathway, six of which are designated as primary care where participants will be required to select primary care osteopathic residencies thus helping to decrease projected primary care physician shortages. The remaining six slots do not require residency designation and students will be able to apply to osteopathic residencies of their choice without restrictions.

Prior to matriculation, all students enrolling in the APAP accelerated three year curriculum are required to sign the Osteopathic Residency Commitment wherein the student acknowledges and confirms that his/her entry and continued matriculation in APAP is conditional upon the student's commitment to complete an osteopathic residency.

Those students matriculating under the primary care slots further commit to practice primary care medicine for a minimum of five (5) years following the successful completion of a primary care residency.

The student acknowledges that in the event he/she chooses to not enter into an osteopathic residency directly following graduation from LECOM or if in a primary care slot and chooses not to practice primary care medicine for a five-year period following completion of said residency, the student will be charged a fee equal to the annual tuition rate paid at the inception of the student's final year at LECOM.

By accelerating the curriculum, LECOM will remove some of the financial burden and reduce time away from clinical practice which are factors currently preventing some PAs who wish to return to medical school from doing so.

Curriculum

Accepted students to APAP will enter LECOM under the LDP, PBL or DSP curricular pathways based on their identified individual learning styles. The first year of didactic curriculum runs from the last week of July through the following May. Instead of the standard summer break, students will then complete 8 weeks of primary care clinical clerkships consisting of four weeks of rural/underserved family medicine/OMM and an additional four weeks of primary care at Erie rotation sites. Students then return to the second year of didactic instruction from August through May. Finally, 48 weeks of core clinical clerkship rotations in the third and final year of the curriculum provides a total 82 weeks of didactic curriculum and 56 weeks of clinical clerkships, or 138 total weeks.

First Year Fall and Spring Sessions (End of July to May)

For didactic course study under LDP, PBL or DSP pathway curricula, see descriptions under individual pathways above.

Second Year Fall Session and Spring Semester (August to May)

For didactic course study under LDP, PBL or DSP pathway curricula, see descriptions under individual pathways above.

2.1.15. Primary Care Scholars Pathway

The Primary Care Scholars Pathway (PCSP) is intended for those students who have a dedicated commitment to primary care medicine. The specific clinical specialties outlined under the PCSP include family practice and internal medicine.

Students in the PCSP program complete the requirements for the D.O. degree in three years. The mechanism for achieving a three-year curriculum is by shortening the summer vacation to 2 weeks. Additionally, the number of clinical rotations is decreased to 16. By omitting some elective and selective rotations, the focus of the clinical training is on primary care medicine. Students are required to sign a contract acknowledging that they will be assessed a financial penalty if they leave primary care practice prior to the time frame specified in the contract.

The PCSP curriculum is based on the DSP model, which is structured on the self-directed modular system. For more information, see the detailed description of the DSP program outlined in section 2.1.13 . Although the PCSP is modular-based study, there are some differences compared with the DSP. These include specific clinical vignettes included within each module of the PCSP. The intent of these clinical scenarios is to provide a clinical correlation with the basic science information. Secondly, there will be meetings twice weekly with students and faculty/clinicians to discuss material outlined in the learning objectives and clinical cases within each module. Remediation also differs for the PCSP pathway.

2.1.16. Clinical Curriculum

2.1.16.1. Clinical Curriculum for LDP, PBL and DSP

The essence of clinical training has been said to be "experience with graduated responsibility" and this concept is followed at LECOM.

Phase III of the curriculum in three of the pathways consists of third and fourth year clinical rotations (or clerkships). To achieve curricular goals and objectives these clinical rotations will utilize:

1. A large base of osteopathic and allopathic physicians who have experience in both primary care and non-primary care specialties and are acutely aware of the cultural and socioeconomic milieu of modern medicine;
2. Accredited hospitals in which students can gain the experience of patient care in large tertiary centers, smaller community-based hospitals, rural hospitals and their respective health systems;
3. Outpatient clinical training in an environment and area in which the student may ultimately practice;
4. Community clinics staffed by professionals from the local area; and
5. Studies of developing cost-effective primary care delivery systems.

The clinical curriculum provides training on a rotational basis at a wide variety of geographically diverse sites. While most of these sites are throughout Pennsylvania and Florida, a large number of training sites are located in Ohio, New York, New Jersey, Michigan, West Virginia, Indiana, and California. Students might expect and be prepared for inter-state travel.

Students will be provided inpatient clinical experiences at hospitals and medical centers and outpatient experiences at hospital-based clinics, free-standing clinics, and physicians' offices. The availability of elective opportunities will maximize career options and enrich undergraduate medical education.

This concentrated clinical training will be initiated in the third year. During the third and fourth years, students will be required to successfully complete their clinical clerk-ships. Each of these clerkships is defined as one clinical rotation. Rotations are assigned by the Associate Dean of Clinical Education.

The clinical rotations are directed toward areas of medicine that are important in the primary care practice.

Third Year Rotations

- | | | |
|--|---------|------------|
| • DOR 1006 – Internal Medicine I | 4 weeks | 10 Credits |
| • DOR 1008 – Internal Medicine II | 4 weeks | 10 Credits |
| • DOR 1032 - Internal Medicine III | 4 weeks | 10 Credits |
| • DOR 1007 – Surgery I | 4 weeks | 10 Credits |
| • DOR 1009 – Surgery II | 4 weeks | 10 Credits |
| • DOR 1010 – Obstetrics/Gynecology | 4 weeks | 10 Credits |
| • DOR 1022 – Family Medicine | 4 weeks | 10 Credits |
| • DOR 1018 – Pediatrics | 4 weeks | 10 Credits |
| • DOE 1013 – Core Selective | 4 weeks | 10 Credits |
| • DOE 1001 – Elective I | 4 weeks | 10 Credits |
| • DOE 1002 – Elective II | 4 weeks | 10 Credits |
| • DOR 1011– Psychiatry/Behavioral Health | 4 weeks | 10 Credits |
| • Vacation | 4 weeks | |

Fourth Year Rotations

- | | | |
|--|---------|--------------------|
| • DOR 1020, DOR 1023
Emergency Medicine I, II | 8 weeks | 10 Credits
each |
| • DOE 1010 – Medicine Selective | 4 weeks | 10 Credits |
| • DOE 1011 – Primary Care Selective | 4 weeks | 10 Credits |
| • DOE 1012 – Surgery Selective | 4 weeks | 10 Credits |
| • DOR 1003 – Ambulatory Medicine I | 4 weeks | 10 Credits |

- DOR 1031 – Ambulatory Medicine II 4 weeks 10 Credits
- DOR 1013 – Rural/Underserved Ambulatory 4 weeks 10 Credits
 Medicine
- DOE 1003 – Elective I 4 weeks 10 Credits
- DOE 1004 – Elective II 4 weeks 10 Credits
- DOE 1006 – Elective III 4 weeks 10 Credits
- DOE 1007 – Clinical Competency 4 weeks 10 Credits
 Development
- Vacation 4 weeks

Students will be required to return to campus to take and successfully complete end of rotation examinations (NBME Clinical Subject Exams) in all core clinical rotations in the third year. Students will not be allowed to sit for the COMLEX Level 2-CE examination or proceed into their fourth year clinical rotations until all exams have been successfully completed. Students will participate in a workshop in preparation for the COMLEX Level 2-PE examination during the third year. Refer to the Clinical Clerkship Handbook for information on how these examinations apply to course grade evaluations.

2.1.16.2. Clinical Curriculum for APAP

Students enrolled in the APAP must complete rotations during years two and three. Clinical rotations for APAP students are assigned by the Assistant Dean of Clinical Education.

First Summer Session (two rotations) - Second Year Rotations

- DOR 1023 – Family Medicine/OMM, 4 weeks AND
- DOR 1022 – Family Medicine, 4 weeks OR
- DOR 1018 – Pediatrics, 4 weeks OR
- DOR 1006 – Internal Medicine 4 weeks

Third Year Rotations (June to May, 4 week rotations)

- DOR 1010 – OB/GYN
- DOR 1006 – Internal Medicine I
- DOR 1008 – Internal Medicine II
- DOR 1032 – Internal Medicine III
- DOR 1018 – Pediatrics
- DOR 1011 – Psychiatry
- DOR 1007 – Surgery I
- DOR 1009 – Surgery II
- DOR 1003 – Ambulatory Medicine I
- DOR 1031 – Ambulatory Medicine II
- DOR 1020 – Emergency Medicine
- DOE 1022 – Osteopathic Manipulative/Rural/Underserved
- DOE 1021 – Sub-Internship

DOR 1006, 1018 and 1022 rotations not completed in the first summer session will be completed in the third year.

2.1.16.3. Clinical Curriculum for PCSP

Students enrolled in the PCSP must complete 16 rotations during years two and three. Clinical rotations for PCSP students are assigned by the Associate or Assistant Dean of Clinical Education. All PCSP students in a specific class take all rotation types simultaneously unlike the multiple group rotations for the rest of the students at LECOM. Within each clinical rotation, the PCSP students are required to attend a capstone experience on the third Thursday of every month. Through these experiences, students come together as a group to review basic and clinical sciences in the context of case studies in a modified problem-based learning format. Primary care physicians will facilitate these discussions. These sessions include an Osteopathic Principles and Practices portion with OPP Department members. Students also are required to continue their mentorship with the physician they were following during the entire second year; they attend a session with their mentor for four hours each rotation.

Second Year Rotations

- DOR 1022 – Family Medicine 4 weeks
- DOR 1006 – Internal Medicine 4 weeks
- DOE 1015 – Clinical Overview 4 weeks

Third Year Rotations (June to May, 4 week rotations)

- DOR 1018 – Pediatrics
- DOR 1010 – OB/GYN
- DOR 1008 – Internal Medicine II
- DOR 1007 – Surgery I
- DOE 1016 – Medical Selective I
- DOR 1033 – Psychiatry/Comprehensive Review
- DOE 1020 – OMM/Comprehensive Review
- DOE 1017 – Medical Selective II
- DOR 1003 – Ambulatory Medicine I
- DOR 1031 – Ambulatory Medicine II
- DOE 1018 – ENT/Ophthalmology
- DOR 1020 – Emergency Medicine
- DOE 1021 – Sub-Internship 4 weeks

2.1.16.4. PCSP Clinical Descriptions

DOR 1022 – Family Practice - 10 Credit Hours* *4 weeks

Family practice rotation provides PCSP students with the opportunity to enhance their understanding of the unique role of the osteopathic family practitioner and the basic knowledge, skills, and attitudes necessary for a "family doctor" to care for patients of all ages. They have

already experienced family medicine through the PCSP Mentor Program beginning in the OMS I year. Students further gain the skills, knowledge, and attitudes by engaging in structured learning activities, both outpatient and inpatient. These will represent a core of behaviors encompassed by the family physician, which prepare him/her for a unique role in patient management, problem solving counseling, and coordination of health care for the individual and for the family unit.

Health Care Management will be presented to prepare students for establishing a family medicine practice and understanding the critical role of family medicine in the transformation of the U.S. health care system.

DOR 1006 – Internal Medicine 1 - 10 Credit Hours 4 weeks

There are two four-week rotations in Internal Medicine for PCSP. Medical Selective 1 makes the third of three required IM core rotations and provides individualization suited to student interests. Internal Medicine is primarily an inpatient service experience in which students apply concepts of diagnosis and management to hospitalized and ambulatory patients. Experiences focus on areas traditionally identified and related to internal medicine, for example, the pathophysiology of non-surgical diseases and the application of non-surgical diagnostic and therapeutic techniques. Internal medicine experiences take place primarily on general medical/surgical floors and specialty units. Any outpatient experiences will be designed to provide students with an understanding of routine care performed in the physician's office/clinic and will be at the discretion of the Attending/Preceptor.

DOE 1015 – Clinical Overview - 10 Credit Hours 4 weeks

The Clinical Overview Rotation occurs in the curriculum immediately before the NBOME exams are given. The rotation includes PCSP group sessions, which are held to enhance conceptual problem solving and assure retention of information. Review of biomedical concepts are incorporated within select clinical vignettes and used for clarification and retention of medical knowledge. During this Clinical Overview key medical concepts in family and internal medicine are discussed in detail since students had just completed clinical rotations in these clinical areas. During the Clinical Overview Rotation, PCSP students also participate with students from the other 3 pathways in a Board Preparation Course offered by LECOM to the OMS2 students.

Third Year Rotations

DOR 1010 – OB/GYN - 10 Credit Hours 4 weeks

Obstetrics/Gynecology is a predominantly inpatient clinical experience. Related outpatient clinical experiences are periodically integrated into the rotation to provide students with an understanding of routine OB/GYN care performed in the physician's office. The outpatient experiences may be in a clinic or a preceptor's private office.

Students perform selected technical skills necessary to provide ante-partum, post-partum, and pre-and post-op care of gynecological-surgical patients. They practice skills and techniques to do normal uncomplicated deliveries and participate in the management of more complex

problems in obstetrics. Emphasis is placed on pelvic exams and identifying pathology. Attention is directed to the psychosocial impact of pregnancy and gynecologic disease on the female patient and the family unit.

DOR 1015 – Pediatrics - 10 Credit Hours ***4 weeks***

Pediatrics may be either inpatient or outpatient. Students will apply concepts of diagnosis and management to infants and children with either normal or pathological physiologic processes. In addition, students will gain knowledge about normal growth and development of the pediatric patient.

During the inpatient experiences, students will complete history and physical examinations on pediatric medical admissions. Students should have pertinent lab data, physical findings, etc., available for thorough rounds with the Attending/Preceptor. Orders will be written when possible and appropriate. Discharge summaries may be required at the discretion of the attending faculty.

Outpatient experiences, generally in private offices, will be guided by schedules of the pediatric faculty preceptors. The outpatient experience also will include having students spend time in the following types of settings: Well Baby Clinic; Women, Infant, and Children (WIC) Nutrition Centers; and School Health Programs. The goal of the outpatient pediatric experience will be to assist the students to become both familiar and comfortable with routine and preventive aspects of infant and child care.

DOR 1008 – Internal Medicine 2 - 10 Credit Hours ***4 weeks***

This is the second of two four-week rotations in Internal Medicine for PCSP. Internal Medicine II continues the inpatient service experience in which students apply concepts of diagnosis and management to hospitalized and ambulatory patients. Focus is once again on areas traditionally identified and related to internal medicine and take place on general medical/surgical floors and specialty units. Any outpatient experiences will be designed to provide students with an understanding of routine care performed in the physician's office/clinic and will be at the discretion of the Attending/Preceptor.

DOR 1007 – Surgery I - 10 Credit Hours ***4 weeks***

There are two four-week rotations in Surgery. For PCSP the first rotation is General Surgery, primarily an inpatient service experience in which students learn to recognize and assist in the treatment of diseases in which surgery may play a role in a patient's treatment and recovery. Students learn basic surgical procedures, aseptic techniques, correct handling of tissue, and technical skills to assist the surgeon in the operating room. Students will assist in pre-and post-operative care to learn various surgical treatments and to recognize potential risks and complications associated with the respective treatments.

DOE 1016 – Medical Selective 1 - 10 Credit Hours ***4 weeks***

This is the first of two medical selectives for PCSP students. The goal of this selective rotation is to enhance and improve students' knowledge and skills in a medical subspecialty area and to

stand as the third internal medicine rotation for PCSP. The subject matter is chosen and approved by the clinical director of the pathway before a decision is made. Due to the fact the PCSP students have only 2 IM rotations and 2 selectives dedicated to IM, these selectives must be chosen wisely in order to adequately prepare them for post graduate education and high stakes examinations. Topics for the two medical selectives are determined after an analysis of the experiences within previous rotations. This selective rotation is four weeks in duration. It is imperative that students be goal directed in their choice of selectives, so they will receive the maximum benefit from their experiences.

DOR 1033 – Psychiatry/Comprehensive Review - 10 Credit Hours 4 weeks

The Psychiatry/Behavioral Sciences rotation is both inpatient and outpatient. Through these experiences, students acquire the knowledge and skills to treat emotional and behavioral problems that commonly present in a primary care office, paying particular attention to the stress factors that are contributing to emotional dysfunction. The curriculum for this rotation will focus on the importance of the family in the relation of individual behavior and the ability to identify stressing conflicts and communication problems within the family. Including both adolescent and adult psychiatry, students will gain knowledge and experience to deal with common psychiatric disorders. Students have opportunities to generate diagnoses and plans of treatment based on their understanding of the dynamics of the behavior seen under supervision of the attending psychiatric faculty.

This rotation is split between Psychiatry and time spent in preparation for high stakes exams.

During the “Comprehensive Review” portion of this Psychiatry Rotation, the PCSP students participate in a review of clinical medicine to prepare them for the COMLEX-USA Level 2-CE. These sessions are conducted by the PCSP Faculty and involve discussion groups and testing modalities that provide an extensive reinforcement of the concepts in clinical medicine. The time spent on campus studying during this rotation is monitored to advocate for sufficient study time.

***DOE 1020 – Osteopathic Manipulative Medicine/ Comprehensive Review - 10 Credit Hours
4 weeks***

The Osteopathic Manipulative Medicine rotation is both inpatient and outpatient. Through these experiences, students enhance their knowledge and skills in treating with osteopathic manual techniques that commonly present in a primary care office. Each student rotates with four physicians through various settings: inpatient, outpatient, rural, or urban, for example. Students have opportunities to generate diagnoses and plans of treatment based on their understanding of the dynamics of the patients’ complaints as seen under supervision of the attending faculty.

During the “Comprehensive Review” portion of the OMM Rotations, the PCSP students participate in a review of clinical medicine to prepare them for the COMLEX-USA Level 2-CE. These sessions are conducted by the PCSP Faculty and involve discussion groups and testing modalities that provide an extensive reinforcement of the concepts in clinical medicine. The time spent on campus studying during this rotation is monitored to advocate for sufficient study time.

DOR 1017 - Medical Selective 2 - 10 Credit Hours 4 weeks

This is the second of two medical selectives for PCSP students. The goal of this selective rotation is to enhance and improve students' knowledge and skills in a medical subspecialty area. The subject matter is chosen and approved by the clinical director of the pathway before a decision is made. Due to the fact the PCSP students have only 2 IM rotations and 2 selectives dedicated to IM, these selectives must be chosen wisely in order to adequately prepare them for post graduate education and high stakes examinations. Topics for the two medical selectives are determined after an analysis of the experiences within previous rotations. This selective rotation is four weeks in duration. It is imperative that students be goal directed in their choice of selectives, so they will receive the maximum benefit from their experiences.

DOR 1003, DOR 1031 – Ambulatory Medicine 1 & 2 – 10 Credit Hours per rotation 8 weeks

There are two four-week rotations in Ambulatory Medicine. Ambulatory Medicine is intended to expose students to a variety of community-based Family Practice settings. Students, as a function of contact with allied health care professionals, will acquire knowledge and skill in the utilization of community resources for the prevention and treatment of disease. Students should recognize that this is both a hands-on clerkship, which involves direct patient care, and one, which will instill students with the "community" perspective to complement the clinical model of direct service. The clerkship focuses on psychological, socioeconomic, cultural, ethnic, environmental/ecological, and political factors influencing the incidence, treatment, and prevention of disease.

Health Care Management will be presented to teach students vital skills in medical documentation, evaluation and management (E/M) services needed to reduce risk and achieve timely reimbursement for services provided.

DOE 1018 – ENT / Ophthalmology - 10 Credit Hours 4 weeks

This is the second of two four-week rotations in Surgery for PCSP students. An ENT/Ophthalmology experience is beneficial given the frequency of related disorders encountered by primary care physicians. ENT/Ophthalmology is both an inpatient and outpatient service experience in which students learn to recognize and assist in the treatment of diseases where otorhinolaryngology and ophthalmology may play a role in a patient's treatment and recovery. Students learn basic procedures, aseptic technique, correct handling of tissue, and technical skills while assisting specific surgeons in the office setting and in the operating room. Students will also assist in pre-and post-operative care to learn various surgical treatments and to recognize potential risks and complications associated with the respective treatments.

DOR 1020 – Emergency Medicine - 10 Credit Hours 4 weeks

One four-week rotation is required in Emergency Medicine. Emergency Medicine is hospital based and focuses on the students experiencing the delivery of emergency care to a diverse population of patients and the management of serious medical experiences. Experiences will include diagnosis, management, and referral of patients presenting to the Emergency Department. Students preparing for careers in primary care need skills necessary for the immediate assessment and management of life-threatening and urgent conditions, or for the stabilization of such conditions prior to referral to another treatment facility. Hence, students are

involved in making initial evaluation of the patient working with the attending physician to establish an appropriate plan. Students learn techniques of cardiac life support, airway insertion, and chest tube insertion.

DOE 1021 – Sub-Internship - 10 Credit Hours ***4 weeks***

The Sub-Internship rotation is preferentially assigned at the location where the PGY 1 is matched. This rotation is designed to expedite the ability for the future post graduate in becoming accustomed to the routine of the post graduate institution. It is an “intensivist” based, in-house rotation. It may be an ICU, CCU, House Officer, other specialty unit services, or General IM In-House Rotation, for example. Students apply concepts of diagnosis and management to acutely ill hospitalized patients while familiarizing themselves to the facility and its operations and procedures for post graduate years. The focus of the experience is approved by the clinical director of the pathway before a decision is made.

Grading

Grades for each of these PCSP rotations are contingent on a Patient Log and a Mentor Log having been approved by the clinical director of the pathway along with participation in the rotation Capstone Experience. Grades for all of these rotations are determined by using the LECOM Clinical Clerkship Student Evaluation Form.

End of rotation exams are consistent with LECOM Clinical Education policy and are administered at the end of each core subject.

2.1.16.5. Clinical Rotations Descriptions for LDP, PBL, DSP

DOR 1022 – Family Medicine – 10 Credit Hours

Family practice rotations provide students with the opportunity to begin acquiring an understanding of the unique role of the osteopathic family practitioner and the basic knowledge, skills, and attitudes necessary for a "family doctor" to care for patients of all ages. Students gain the skills, knowledge, and attitudes by engaging in structured learning activities, both outpatient and inpatient. These will represent a core of behaviors encompassed by the family physician, which prepare him/her for a unique role in patient management, problem solving counseling, and coordination of health care for the individual and for the family unit. Health Care Management will be presented to prepare students for establishing a family medicine practice and understanding the critical role of family medicine in the transformation of the U.S. health care system.

DOR 1006 - Internal Medicine I

DOR 1008 - Internal Medicine II

DOR 1032 - Internal Medicine III – 10 Credit Hours per rotation

There are three four-week rotations in Internal Medicine. Internal Medicine is primarily an inpatient service experience in which students apply concepts of diagnosis and management to

hospitalized and ambulatory patients. Experiences focus on areas traditionally identified and related to internal medicine, for example, the pathophysiology of non-surgical diseases and the application of non-surgical diagnostic and therapeutic techniques. Internal medicine experiences take place primarily on general medical/surgical floors and specialty units. Any outpatient experiences will be designed to provide students with an understanding of routine care performed in the physician's office/clinic and will be at the discretion of the Attending/Preceptor.

DOR 1010 – Obstetrics/Gynecology – 10 Credit Hours

Obstetrics/Gynecology is a predominantly inpatient clinical experience. Related outpatient clinical experiences are periodically integrated into the rotation to provide students with an understanding of routine OB/GYN care performed in the physician's office. The outpatient experiences may be in a clinic or a preceptor's private office.

Students perform selected technical skills necessary to provide ante-partum, post-partum, and pre-and post-op care of gynecological-surgical patients. They practice skills and techniques to do normal uncomplicated deliveries and participate in the management of more complex problems in obstetrics. Emphasis is placed on pelvic exams and identifying pathology. Attention is directed to the psychosocial impact of pregnancy and gynecologic disease on the female patient and the family unit.

DOR 1018 – Pediatrics – 10 Credit Hours

Pediatrics may be either inpatient or outpatient. Students will apply concepts of diagnosis and management to infants and children with either normal or pathological physiologic processes. In addition, students will gain knowledge about normal growth and development of the pediatric patient.

During the inpatient experiences, students will complete history and physical examinations on pediatric medical admissions. Students should have pertinent lab data, physical findings, etc., available for thorough rounds with the Attending/Preceptor. Orders will be written when possible and appropriate. Discharge summaries may be required at the discretion of the attending faculty.

Outpatient experiences, generally in private offices, will be guided by schedules of the pediatric faculty preceptors. The outpatient experience also will include having students spend time in the following types of settings: Well Baby Clinic; Women, Infant, and Children (WIC) Nutrition Centers; and School Health Programs. The goal of the outpatient pediatric experience will be to assist the students to become both familiar and comfortable with routine and preventive aspects of infant and child care.

DOR 1011 – Psychiatry/Behavioral Health – 10 Credit Hours

The Psychiatry/Behavioral Sciences rotation is both inpatient and outpatient. Through these experiences, students acquire the knowledge and skills to treat emotional and behavioral problems that commonly present in a primary care office, paying particular attention to the stress factors that are contributing to emotional dysfunction. The curriculum for this rotation will focus

on the importance of the family in the relation of individual behavior and the ability to identify stressing conflicts and communication problems within the family. Including both adolescent and adult psychiatry, students will gain knowledge and experience to deal with common psychiatric disorders. Students have opportunities to generate diagnoses and plans of treatment based on their understanding of the dynamics of the behavior seen under supervision of the attending psychiatric faculty.

DOR 1007 - Surgery I and DOR 1009 - Surgery II – 10 Credit Hours per rotation

There are two four-week rotations in Surgery. Surgery is primarily an inpatient service experience in which students learn to recognize and assist in the treatment of diseases in which surgery may play a role in a patient's treatment and recovery. Students learn basic surgical procedures, aseptic techniques, correct handling of tissue, and technical skills to assist the surgeon in the operating room. Students will assist in pre- and post-operative care to learn various surgical treatments and to recognize potential risks associated with the respective treatments.

DOE 1013 – Core Selective – 10 Credit Hours

There is one four-week core selective. The goal of the selective is to enhance and improve students' knowledge and skills in a core rotation. It is imperative that students be goal directed in their choice of the selective so that they can receive the maximum benefit from their experiences.

DOE 1001 and DOE 1002 – Electives I and II – 10 Credit Hours per elective

Two four-week Electives are allowed in Year Three. Students have the opportunity to select rotations and attain knowledge and skills in areas of special medical interest. These rotations allow students to begin making judgments about the quality of continuing education experiences that will enhance their professional development and performance as future osteopathic physicians. Electives include any medical or surgical specialty or subspecialty and/or a special elective of interest to the individual student. Students are strongly encouraged to utilize this time to strengthen areas of weakness and/or obtain a well-rounded education and not to concentrate in one specific area of medicine. All electives must be patient-care oriented.

DOR 1003-Ambulatory Medicine I and DOR 1031-Ambulatory Medicine II – 10 Credit Hours per rotation

There are two four-week rotations in Ambulatory Medicine. Ambulatory Medicine is intended to expose students to a variety of community-based Family Practice settings. Students, as a function of contact with allied health care professionals, will acquire knowledge and skill in the utilization of community resources for the prevention and treatment of disease. Students should recognize that this is both a hands-on clerkship, which involves direct patient care, and one, which will imbue students with the "community" perspective to complement the clinical model of direct service. The clerkship focuses on psychological, socioeconomic, cultural, ethnic, environmental/ecological, and political factors influencing the incidence, treatment, and prevention of disease.

Health Care Management will be presented to teach students vital skills in medical documentation, evaluation and management (E/M) services needed to reduce risk and achieve

timely reimbursement for services provided.

DOR 1020-Emergency Medicine I and DOR 1023–Emergency Medicine II - 10 Credit Hours per rotation

Two four-week rotations are required in Emergency Medicine. Emergency Medicine is hospital based and focuses on the students experiencing the delivery of emergency care to a diverse population of patients and the management of serious experiences. Experiences will include diagnosis, management, and referral of patients presenting to the Emergency Department. Students preparing for careers in primary care need skills necessary for the immediate assessment and management of life-threatening and urgent conditions, or for the stabilization of such conditions prior to referral to another treatment facility. Hence, students are involved in making initial evaluation of the patient working with the attending physician to establish an appropriate plan. Students learn techniques of cardiac life support, airway insertion, and chest tube insertion.

DOR 1013 – Rural/Underserved Ambulatory Medicine – 10 Credit Hours

The student will complete one four-week rural/underserved (R/U) family practice medicine rotation in Year Four. Rural and/or Underserved area (R/U) Family Practice medicine offers a unique set of problems and challenges to the practicing physician. The general aim of this experience is to offer students an opportunity to enhance their knowledge, skills, and attitudes that are essential to a successful and satisfying rural practice. Students should be able to outline the personnel and material requirements of a rural practice, outline the steps one takes in identifying community medical needs, be comfortable in providing home-care services, and understand the physician's role in the community. These skills will be learned in both ambulatory centers and hospitals.

DOE 1003 , DOE 1004 and DOE 1006 – Electives I, II and III – 10 Credit Hours per elective

Three four-week Electives are allowed in Year-Four. Students have the opportunity to select rotations and attain knowledge and skills in areas of special medical interest. These rotations allow students to begin making judgments about the quality of continuing education experiences that will enhance their professional development and performance as future osteopathic physicians. Electives include any medical or surgical specialty or subspecialty and/or a special elective of interest to the individual student. Students are strongly encouraged to utilize this time to strengthen areas of weakness and/or obtain a well-rounded education and not to concentrate in one specific area of medicine. Electives may be split into two two-week periods. All electives must be patient care oriented.

DOE 1010 - Medical Selective, DOE 1011 - Primary Care Selective and DOE 1012 - Surgical Selective – 10 Credit Hours per selective

There are three four-week Selective rotations in Year-Four. These are: Medical Selective, Surgical Selective, and Primary Care Selective. The goal of the selective rotations is to enhance and improve students' knowledge and skills in medical and surgical subspecialty areas. Each selective rotation is four weeks in duration. It is imperative that students be goal directed in their choice of selectives, so they will receive the maximum benefit from their experiences.

DOE 1007 – Clinical Competency Development-10 credit hours

Clinical Competency Development is a fourth year course designed to provide the student additional experience in all or a portion of the seven core competencies. Students desiring to improve upon their medical knowledge base may opt for either formal or informal review courses. Select students may be required to attend a formal review. Following any type of review, the student will be required to take the Comprehensive Osteopathic Medical Self-Assessment Examination (COMSAE) – Phase 2 for their grade.

Other students may wish to obtain more experience in competencies, such as patient care, interpersonal and communication skills, osteopathic principles and practices etc., through a clinical rotation. Still others may opt for unique rotational experiences in the following areas:

- Medical research
- Advanced Clinical Topics in Basic Science
- Healthcare management
- International rotation
- Volunteer in healthcare-related service
- Medical missionary work

Grades for all these rotations will use the LECOM Clinical Clerkship Student Evaluation Form.

2.1.16.6. Clinical Rotations Descriptions for APAP – Additional Rotations

DOE 1023 – Family Medicine/OMM – 10 Credit Hours

This rural, underserved Family Medicine rotation designed to be completed with an osteopathic physician board certified in OMM provides students with the opportunity to begin acquiring an understanding of the unique role of the osteopathic family practitioner and the basic knowledge, skills, and attitudes necessary for a "family doctor" to care for patients of all ages. This early introduction into the clinical practice of OMM will allow students to gain the skills, knowledge, and attitudes of osteopathic physicians who incorporate manipulation into the care of their patients. These will represent a core of behaviors encompassed by the family physician, which prepare him/her for a unique role in patient management, problem solving counseling, and coordination of health care for the individual and for the family unit.

2.1.17. The College’s Student Promotion and Graduation (SPG) Committee

The Student Promotion and Graduation Committee (SPG) is responsible for reviewing the academic achievement and advancement of students for the degree of Doctor of Osteopathic Medicine. The composition and functions of the committee are as follows:

- A. The SPG Committee is comprised of academic deans, other administrators, and

elected basic science and clinical faculty members.

- B. The SPG Committee meets on an as-needed basis (twice monthly in Erie) to review the academic achievements and performance of all students. The names and grades of students in academic difficulty are made available to the SPG Committee by the course director, systems coordinator and pathway directors with additional input from the Provost. Student conduct and discipline may also be reviewed.
- C. The SPG has the authority to call any student before it who has shown academic or behavioral problems. Students are submitted to the Committee for consideration from:
 - Any of the academic deans;
 - Director of Student Affairs; or
 - Faculty members.
- D. Students may be referred to the Committee for:
 - Honor code violations including any allegations of cheating or academic dishonesty;
 - Non-honor code violations including issues of professionalism, failure to meet financial obligations to the College or behavioral issues either on campus or during clinical rotations; or
 - Failure to progress academically or academic failure.
- E. Student names are submitted to the Chairman of the SPG and placed on the agenda for the next regularly scheduled meeting. If the matter is urgent, a special meeting of the Committee is called. Prior to the meeting, the Committee is provided with any written records, academic records, advisor input, attendance records, etc. prior to meeting with the student.
- F. Students meet with the Committee and are informed of the reason for their appearance. They are given an opportunity to address the Committee and allowed to submit any supporting documentation. The Committee members are given an opportunity to question the student.
- G. After students have left the meeting and the Committee has considered the written records in front of it, the members confer and then vote on recommendations to be submitted to the appropriate dean.
- H. The Chairman of the Committee prepares and submits the Committee's recommendations to the appropriate dean, who may accept, reject or modify the recommendations.

This procedure is distinct from that for appeal hearings set forth in Section 4.2.4. Appeals to this decision may be taken to the President within seven days of notification of a decision by the dean. Students in the post baccalaureate program may not take appeals to the President.

2.1.18. Policy and Procedure for Final Grade Appeals

2.1.18.1. Cause for Final Grade Appeals

In order to appeal a final grade, a student must offer convincing arguments that good cause exists for mandating a change of grade. A request for a grade appeal is not automatically granted.

A. Each of the following reasons, if supported by sufficient evidence, shall constitute “good cause”:

- Assignment of a grade that is malicious and/or discriminatory: i.e., in determining the grade, the Course Director or Coordinator, Program Director, Clinical Preceptor or Systems Co-coordinator (“professor”) clearly did not apply the same standards he/she used for grading other members of the class whose work and behavior were similar to those of the appealing student.
- Assignment of a grade that is arbitrary and/or capricious: i.e., the professor had apparently no discernible rationale for arriving at the grade given.
- Assignment of a grade that has resulted from human error: i.e., the professor reported an incorrect grade as the consequence of a mistake in computation, in recording or in some other mechanical aspect of the grading process. In such instances, it is assumed that the error will be corrected as a result of Step 1 of the Appeals Procedure (Faculty-Student Conference).

B. The following reasons do not constitute “good cause” for the purposes of appealing a grade:

- Disagreement with the course or systems requirements established by the professor.
- Disagreement with the grading standards established by the professor.
- Disagreement with the judgment of the Professor in applying his/her grading standards so long as he/she has made a reasonable effort in good faith to be fair and consistent in exercising that judgment. Good faith on the professor’s part shall be presumed unless the student can offer convincing arguments to the contrary.
- The student’s desire or “need” for a particular grade, while compelling to the individual on a personal level, shall not be considered “good cause” for purposes of appeal.
- Students repeating any academic year are ineligible for grade appeals.
- Scoring less than 75% on a remediation examination or in a remedial course for the College of Medicine.

2.1.18.2. Procedure for Final Grade Appeals in the College

Step 1: Faculty/Student Conference

A student wishing to appeal a final grade shall confer with the faculty member or preceptor who assigned the grade, and also inform the appropriate Associate/Assistant Dean in writing or electronically. In the first and second years of the program, the Associate/Assistant Dean of Preclinical Education should be notified in writing or electronically. In third and fourth years of the program, the Assistant Dean of Clinical Education should be notified in writing or electronically.

This procedure is also applicable to Masters candidates. For students in the Post Bac program appeals may only be taken to the Director of the Program.

First and Second Years

- The student-faculty member conference shall take place within ten (10) working days after official notification of the grade from the registrar's office.
- If either the student or faculty member wants the conference to take place in the presence of a third party, a request will be submitted to the appropriate Dean or another member of the institution to sit in on the conference.
- The student shall explain the reasons for appealing the grade (see Cause for Final Grade Appeals), and the faculty member shall explain the reasons for assigning the grade.
- If the faculty member believes the grade should not be changed, the student shall be notified electronically or in writing (with a copy to the Associate/Assistant Dean) within five (5) working days after the conference has occurred.
- The Associate/Assistant Dean of Preclinical Education will consider all the facts presented by the student and faculty member and make a decision regarding any grade change based on the criteria listed in Cause for Final Grade Appeals A and B.
- The student will be notified electronically or in writing within a reasonable time period of the Associate/Assistant Dean's decision.

Third and Fourth Years

- The Associate/Assistant Dean of Clinical Education will consider all the facts presented by the student and preceptor, and make a decision regarding any grade change based on the facts.
- The student shall be notified electronically or in writing of the Associate/Assistant Dean's decision within a reasonable time.

Step 2: Appeal to the Student Promotion and Graduation (SPG) Committee.

If the student is not satisfied with the decision of the Associate/Assistant Dean, he/she may file an appeal to the SPG Committee.

- This appeal must be submitted in writing or electronically, addressed to the Chairperson of the SPG Committee, and shall contain the student's reasons for appealing the grade. (See section: Cause for Final Grade Appeal).
- The appeal should be made within 10 (ten) working days after the student receives the written notification from the Associate/Assistant Dean of Preclinical and/or Clinical Education.
- After considering all the facts, the SPG Committee will make a decision. The student shall be notified electronically or in writing within a reasonable time period of the decision of the Committee.
- If the SPG Committee rules against the student, the decision may be appealed to the President within 10 working days after the student receives notification of the decision. The decision of the President in the matter shall be final.

Step 3: Appeal to an Academic Appeals Committee

If the student's challenge of his/her failing grade is determined valid under Step 2 of the Procedures for Final Grade Appeal:

- An Academic Appeals Committee is selected from the list of full-time members of the faculty except for the faculty members involved in issuing the grade or a member of the SPG Committee. The Dean/Associate Dean of Academic Affairs will supply the student with a list from which the student will select two (2), the faculty member who issued the grade will select two (2), the Associate/Assistant Dean of Preclinical and/or Clinical Education will designate one (1) faculty member who shall serve as Chairperson of the Committee.
- Within a reasonable period of time, usually five (5) working days after selection of the Committee, the Chair of the Appeals Committee shall notify the student and faculty member in writing or electronically of the date, time and place of a scheduled hearing.
- The Academic Appeals Committee may consider all materials in the appeal file, including, but not limited to, the student's written appeal, the faculty member's written justification, the student's written work for the course, and any additional academic records.
- The Academic Appeals Committee shall reach a decision within a reasonable amount of time - usually fifteen (15) working days after the receipt of the appeal and report their decision electronically or in writing to the Dean/Associate Dean of Academic Affairs.
- The student and the faculty member shall be given written notice of the Academic Appeals Committee's decision by the Dean/Associate Dean of Academic Affairs and shall be informed of their right to appeal the Committee's decision to the President of the School. The faculty member or the student may appeal the decision of the

Academic Appeals Committee in writing to the President within 30 calendar days. No grade shall be recorded until the time limit is up or a release signed by the student is on file.

- The decision of the President is final. The President shall notify the student and the Dean/Associate Dean of Academic Affairs of his decision in writing.
- The Dean/Associate Dean of Academic Affairs shall notify the registrar within a reasonable amount of time (usually five (5) working days) electronically or in writing of the final decision.

2.1.19. Satisfactory Academic Progress Policy

A student is considered to be making satisfactory academic progress if the grade received for each course, system, module, or rotation is 70% (C) or greater. Any grade below a 70% (C) must be successfully remediated as described in Section 2.122 prior to the student advancing to the next academic year. Any incompletes must also be resolved and removed from the record prior to progression to the next year, except in courses in the Masters Programs. Exceptions to this policy will be made on an individual basis. This policy applies to all students regardless of whether or not they receive Title IV funding (Federal Direct Loans).

Evaluation by the Student Promotion and Graduation (SPG) Committee occurs no later than the end of each semester or payment period. A student who has failed any course, system, module, or rotation will be assessed pursuant to the rules in Section 2.122, Remediation.

If a student is permitted to remediate and continue on to the next semester or payment period, a financial aid warning will be issued to the student. While on financial aid warning status the student may continue to receive Title IV funding (Federal Direct Loans) for one additional semester or payment period. If the student fails to achieve satisfactory academic progress while on financial aid warning status, the student will not be eligible for additional financial aid until all requirements for satisfactory academic progress have been achieved. The financial aid warning will be issued to the student at the time SPG Committee determines the satisfactory academic progress status of the student or prior to the start of the next semester or payment period.

Financial aid warning is defined as: a status assigned to a student who fails to make satisfactory academic progress at the end of the semester or payment period and the SPG Committee allows the student to continue to the next semester and receive financial aid.

The coursework for students at LECOM is offered in sequence. A student who is unsuccessful with remediation at the end of an academic year will be evaluated by the SPG Committee according to the established procedure and will be required to either repeat the entire year or be dismissed. LECOM policy requires a pace of 100% (completed course credits/attempted course credits) per academic year. Students who are repeating a year are not eligible for federal financial aid during the year in which they are repeating already taken course work.

In the College of Medicine, during the clinical phase of the curriculum, students must pass the NBOME COMLEX Level 1 to continue with their third year clinical rotations. The NBOME COMLEX Level 2-CE and 2-PE exams must be passed during fourth year clinical rotations (third year for PCSP and APAP students). See Section 2.1.24 for more details regarding the NBOME COMLEX exams. To progress from year three into year four, students must also pass the six core Subject (Shelf) exams. These requirements must be fulfilled to be making satisfactory academic progress. Students will be evaluated at the end of each clinical rotation by the Associate/Assistant Dean of Clinical Education.

Students enrolled in the four-year COM programs must complete all requirements for graduation within six years of matriculation. If a student is unable to meet the maximum timeframe allotted for his/her program, he/she would be dismissed. If a student in the three-year COM program is unable to maintain satisfactory academic progress in the program, the student will be required to enter the four-year COM program, and must complete the program within six years of the original matriculation date. A student must progress through the curriculum at a pace that enables him/her to graduate in the maximum time allotted.

The SPG Committee, charged with monitoring satisfactory academic progress, makes its recommendations to the Dean of the College of Medicine.

If a student fails to achieve satisfactory academic progress while on “Financial Aid Warning” status, he/she **will not** be eligible for financial aid until all requirements for satisfactory academic progress have been achieved. A student may reestablish eligibility to receive assistance under the Title IV, HEA programs by coming into compliance with the rule that all courses, systems, modules, or rotations are passed. See Section 2.1.22, Remediation. See Section 3.1.6 Satisfactory Academic Progress Standard for Financial Aid Recipients.

2.1.20. Promotion

Promotion is defined as progression from one academic year to the next.

- A. The faculty will recommend students to the Dean for promotion.
- B. A student will **not** be recommended for progression to the next academic year with any outstanding grades of (I) or (F). COM students must have a grade average of 2.0 or above.
- C. Third year students cannot advance to the fourth year until they have passed all 6 of the NBME Clinical Subject Examinations. Students in the PCSP and APAP Programs must pass all 6 NBME Clinical Subject Examinations in order to remain in their respective programs and continue on rotations. Both third and fourth year students may not be recommended for progression to the next academic year or for graduation with any outstanding grades of (I) or (F).

- D. When considering a student for promotion, the student's professional, ethical, and personal conduct will also be taken into consideration. Therefore, a student must adequately conform to the standards set forth in the Academic Catalog and Student Handbook to be eligible for promotion.
- E. A student will be promoted only if all academic, legal and financial requirements to LECOM are satisfied.

2.1.21. Academic Probation

- A. Academic probation is defined as a period of time during which a student's academic progress will be closely monitored by the SPG Committee and the Dean. The Dean will specify the probationary period.

A student of the College of Medicine may be placed on probation upon failure of a course, system, module or for other cause as stated in this document, such as seriously deficient ethical, professional, personal or illegal conduct. First year students may be placed on probation prior to completion of a course if they achieve a failing grade during the core courses, systems or modules (PBL, DSP and PCSP).

Members of the faculty or administration will render a special report in writing to the SPG Committee regarding any student whose professional or personal conduct is deemed unsatisfactory. Professional and personal conduct includes, but is not limited to, the lack of: attendance, cooperation with instructors, interest shown in assigned work, appropriate attitude toward peers and associates, regularly scheduled meetings with faculty advisors, and personal appearance appropriate to the circumstances.

The terms of probation for ethical, professional or personal conduct will be specified at the time the student is placed on probation.

- B. When a student is placed on probation, the appropriate dean will notify the student in writing of the reasons for probation. A copy of this letter will be distributed to the Chairperson of the SPG Committee and the student's faculty advisor. The Committee will ascertain when the terms of the probation have been satisfied and recommend to the appropriate dean that probation can be rescinded. A copy of this letter will be placed in the student's permanent file if the probation is labeled "Disciplinary" as opposed to "Conduct."
- C. A student on probation may not serve as an officer of an official LECOM club or organization and shall not engage in time consuming extracurricular activities.

- D. A first or second year student of the College on probation must meet with his or her faculty advisor at least every two weeks. A third or fourth year student on probation must contact the Office of Clinical Education weekly.
- E. The student will remain on probation until the following minimally acceptable standards are met:
- The student will be removed from probation when the specified terms have been remediated according to the following remediation section.
 - The student will be removed from probation when the specified terms of probation for ethical, professional, or personal conduct are met.
 - Students in their final year are subject to SPG Committee review prior to removal from probation.
- F. Academic probation should be regarded as a serious matter and is official notice to the student that the quality of the student's performance during the probationary period must improve in order to remain eligible to continue in the College of Medicine. Any student who fails to improve his/her performance in the areas identified by the SPG Committee during the probationary period may continue on probation, be asked to withdraw or be dismissed from LECOM.

2.1.22. Remediation

2.1.22.1. Policy Statement

Remediation is to be regarded as a privilege, which must be earned by a student through an active participation in the educational program as demonstrated by regular attendance, individual initiative, and utilization of resources available to him or her. All remediations will occur at the end of the academic year.

If a student receives a failing grade in a course, system, DSP module, PCSP module, PBL module, or clinical rotation, that student will be reviewed by the SPG Committee and procedures for remediation will be recommended by the Committee to the appropriate dean. Students taking a remedial examination must score 75% or greater in order to pass for the College of Medicine. There will be no appeals of the remediation grade. However, the highest grade a student may earn through remediation is 70, and this is the grade that will be recorded in the transcript.

2.1.22.2. Procedures for the College of Medicine

In reviewing the student's academic deficiencies, the following guidelines shall be used:

- A. The SPG Committee will consider all failure (F) grades for a course, module, etc. as requiring remediation. Students with multiple failures within the academic

year may be required to remediate, to repeat the year or may be dismissed. Courses, systems, modules of three credit hours or more are classified as major courses and failure of two major courses or a combination of one major and two minor courses (including remedial courses) may result in the student having to repeat the year or being dismissed.

- B. Educational objectives in remediation are the same as the educational objectives used for the regular curriculum. Where deemed appropriate, the SPG Committee, after consultation with the Course Instructor, Systems Co-Coordinator, Director of LDP, Director of PBL, Director of DSP, Director of PSCP, Director of APAP or the appropriate Dean may recommend **any** of the options listed below for the student according to their learning pathway.
- C. Students who fail to reach and maintain appropriate academic achievement are identified as “at risk”. They will be placed under the supervision of the Pre-Clinical Dean. By way of further explanation, College students in Erie and LECOM at Seton Hill who are below a 2.5 grade point average at the end of the first semester of the second year or who have any course failures during OMS 2 year are identified as high risk students for failing the COMLEX Level 1 board examination and will be required to attend an on-campus Board Review Course starting the Monday following completion of the second semester of the academic year. The cost for the Course will be up to \$500.00. Underperformance on any preclinical review diagnostic exam may result in the student being placed in the on-campus board review course at the discretion of the Preclinical Dean. Adequate performance in the on-campus board review course, as determined by the Preclinical Dean, will be required to sit for the COMLEX Level 1 examination. Additional diagnostic examinations may be assigned at the student’s expense for those who underperform while in the on-campus board review and prior to being allowed to sit for COMLEX Level 1.

Students who do not achieve a cumulative grade point average of 2.0 or greater by the end of the academic year will be required to repeat the year, regardless of the number of courses failed, subject to review by the SPG Committee.

College students at the Bradenton campus who fail to reach and maintain a grade point average of 2.5 in the PBL course for both the 3rd and 4th semester will be identified as “at risk.” These students will be required to undergo mandatory on-campus board review procedures under the direction of the Pre-Clinical Dean.

Lecture Discussion Pathway

Students scoring between 65% and 69% will take a comprehensive examination.

- A remedial examination fee will be assessed to all individuals taking a

remedial exam. The fee must be paid to the Office of Student Affairs prior to the student taking the remedial exam.

- Failure of the remedial exam will result in the student being considered in a similar manner to those students receiving less than 65% in a course or system. (See below).

Students scoring below 65% in a course or system will be required to complete a tutorial course and take a remedial examination(s). The tutorial may include, but is not limited to, the following:

- Special projects or studies in the deficient area(s).
- Participation in a directed or self-study course.

The SPG Committee may require students to take a course off-campus. Students electing to do off-campus remediations must have the approval of the SPG Committee. The student will be responsible for registration and any fees involved in those courses. Students will be charged an additional fee for on-campus remediation.

Problem-Based Learning Pathway

Any student who achieves an overall score of less than 70% in a module will be deemed to have failed. At the discretion of the SPG Committee, PBL pathway failures will be remediated as follows:

- A remedial examination fee will be assessed to all individuals taking a remedial exam. The fee must be paid to the Office of Student Affairs prior to the student taking the remedial exam.
- Students scoring between 65% and 69% for a module will take a comprehensive remedial examination. The remedial examination will be comprised of questions on learning issues from the PBL pathway course/module failed.
- Failure of the remedial examination will result in the student being retested on areas that were identified as deficiencies. If a student continues to score less than 75%, he/she will be referred to the SPG Committee and may be subject to dismissal.
- If a student scores below a 65% in a PBL pathway course/module, the SPG Committee may recommend the student for dismissal or for repeating the year.

Directed Study Pathway

Students scoring between 65 and 69% will take a comprehensive examination.

- A remedial examination fee will be assessed to all individuals taking a

remedial exam. The fee must be paid to the Office of Student Affairs prior to the student taking the remedial exam.

- Failure of the remedial exam will result in the student being considered in a similar manner to those students receiving less than 65% in a course or system.

Students scoring below 65% in a course or system will be required to complete a tutorial course and take a remedial examination(s). The tutorial may include, but is not limited to, the following:

- Special projects or studies in the deficient area(s).
- Participation in a directed or self-study course.

The SPG Committee may require students to take a course off-campus. Students electing to do off-campus remediations must have the approval of the SPG Committee. The student will be responsible for registration and any fees involved in those courses. Students will be charged an additional fee for on-campus remediation.

Primary Care Scholars Pathway

Students achieving below the 70% level on any module or course will be reviewed by the SPG Committee for permission to remediate.

Students scoring between 65 and 69% in a single course or module will be given the opportunity to remediate by taking a remedial examination. This examination will be given at the end of the academic year. The following outcomes are possible:

- The student scoring 75% or greater on the remedial examination will be permitted to continue in the PCSP program.
- The student scoring less than 75%:

Option 1: The student may be removed from the PCSP program and enter the LDP program. The student will follow the procedures indicated in the handbook for remediation of the LDP pathway.

Option 2: The student may be dismissed.

Students scoring between 65% and 69% in more than one course or module will be removed from the PCSP program and be permitted to enter a pathway determined by the SPG Committee. Remediation will follow the guidelines outlined in the handbook for the pathway entered.

Students scoring below 65% in the OMS1 year in any course or module will be removed from the PCSP Program and may be permitted to enter the LDP or DSP Program, as determined by the SPG Committee. Remediation follows the guidelines outlined in the handbook for the pathway

entered.

Students scoring between 65 and 69%, inclusively, in a **single** course or module, in the OMS2 preclinical year will be given the opportunity to remediate with a comprehensive examination. The examination is to be given after the end of classes in the preclinical OMS2 Year, **before starting rotations.** The following outcomes are possible:

- The student scores a 75% or greater in the examination and is permitted to continue in the PCSP program.
- The student scores less than 75% in the exam:

Option 1: The student may remediate the course during the first rotation slot of the OMS3 year. The student is then delayed by one month starting rotations and begins with Rotation #2. Rotation #1 is completed after Rotation #18.

Option 2: The student may be offered the chance to repeat the OMS2 year in a pathway as determined by the SPG Committee.

Option 3: The student may be dismissed.

For students scoring between 65 and 69%, inclusively, **in more than one** course or module or scoring below 65% in a course or module during the OMS2 preclinical year, the following outcomes are possible:

Option 1: The student may remediate after the end of classes in the pre-clinical OMS2 Year, **before starting rotations.**

Option 2: The student may be offered the chance to repeat the OMS2 year in a pathway as determined by the SPG Committee.

Option 3: The student may be dismissed.

Students failing two or more courses or modules will be dismissed from the PCSP program. The SPG Committee will evaluate the student's progress and make a determination of whether the student will be permitted to repeat the year in the LDP pathway.

Accelerated Physician Assistant Pathway

Students matriculating under the APAP enroll under the LDP, PBL or DSP pathway based on

their identified learning style. Academic deficiencies will be handled under the guidelines set forth above in this section 6.13 under the appropriate pathway. Remediation of deficiencies may result in the student being unable to participate in clinical rotations until all remediations are completed. Any missed clinical rotation will have to be completed at the end of the third academic year.

Clinical Rotations

In the case of a failing grade on a rotation, the Associate/Assistant Dean of Clinical Education may assign the site and the preceptor of any remedial or subsequent rotation. See the Clinical Clerkship Handbook for more information on when the make-up will be scheduled. The student may be charged on a pro rata basis for the cost of any required make-up rotations. In addition, the student may be required to obtain academic or professional counseling.

Students failing two or more rotations within an academic year will be required to meet with the Chairperson of the SPG Committee to discuss their academic progress. The Chairperson of the SPG Committee will report results of the meeting to the SPG Committee. The SPG Committee may recommend the following:

- Repetition of the academic year;
- Dismissal from the College.
In addition, the student may be required to obtain academic or professional counseling.

For successful completion of the third year and to proceed into the fourth year, and for graduation following the third year for APAP students, students must pass all 6 of the NBME Clinical Subject Exams. Outstanding failures will be handled as follows:

- Failing 1-2 exams may require the student to return to campus for a review course prior to taking any retests. Retests will be administered following this review.
- Failing 3 or more exams may result in the student repeating a portion or all of the third year.
- Once a student has passed three exams, the student will be permitted to retake a failed exam.
- The highest grade a student may earn through remediation is a C (70%). The remediation grade will be recorded on the transcript.
- Any student who is required to remediate a rotation will be notified electronically or in writing by the Chairperson of the SPG Committee within a reasonable period of time, generally within fifteen (15) working days after receiving the student's grades from the Office of the Registrar.

Grades earned during an attempted remediation will be reviewed by the SPG Committee and the Dean of Academic Affairs. Failure to earn a passing level of 75% in remediation may result in dismissal from the College.

Decisions regarding remediation of a rotation will be made on an individual basis after considering all pertinent circumstances. The decision will be made by the Dean of Academic Affairs based upon the recommendations of the SPG Committee. The SPG Committee will base its recommendations on the student's academic record and consideration after consultation with the Preceptor, Course or Program Director, Systems Co-coordinators, Director of Student Affairs, Chairperson of the SPG Committee and/or the Associate/Assistant Dean of Clinical Education, as well as the student involved, when appropriate.

APAP students who fail two or more rotations or more than two NBME clinical subject exams will not be allowed to continue within the pathway, with their matriculation converting to the four year curriculum. In addition, they may be required to repeat all or part of the academic year or face discipline up to dismissal from the College.

2.1.23. Dismissal

LECOM may dismiss a student at any time if circumstances of a legal, moral, behavioral, ethical, health or academic nature justify such an action and if it is deemed necessary to safeguard its standards of scholarship, conduct, and orderly operation.

The SPG Committee may recommend dismissal of a student for any of the following reasons:

- A. Receiving a grade of (F), defined as below 75% in a remediated course, system, module, or clinical rotation for the College of Medicine.
- B. Receiving a grade of (F) in two clinical or experiential rotations or two failures in one semester of an academic year.
- C. Unsatisfactory professional and personal behavior, including but not limited to the following:
 - 1. attendance
 - 2. cooperation with instructors
 - 3. interaction with fellow students, associates, LECOM or clinical site personnel
 - 4. approach to and interaction with patients
 - 5. personal appearance not in compliance with the LECOM dress code.
- D. Failure to demonstrate continued academic and professional growth and achievement.

- E. Failure to successfully complete NBME Clinical Subject Examinations.
- F. Failing the Comprehensive Osteopathic Licensing Examinations (COMLEX) as set forth in the policies of LECOM, by the National Board of Osteopathic Medical Examiners (NBOME) Inc. and meeting the standard set forth by COCA. (See section regarding National Board of Osteopathic Medical Examiners, Inc. Examination.)
- G. Conviction of a felony or a crime involving moral turpitude.

This list is not exclusive. The academic record of any student who has been dismissed will be a part of the data reviewed if the student applies for re-admission. If the student seeks re-admission, the student must go through the admissions process.

2.1.24. National Board of Osteopathic Medical Examiners, Inc. Examination (NBOME)

The examination given by the National Board of Osteopathic Medical Examiners (NBOME) is divided into three parts, referred to as the Comprehensive Osteopathic Medical Licensing Examination (COMLEX). The NBOME has incorporated a standardized patient-based clinical skills examination (COMLEX 2-PE, Performance Examination) into the Clinical Examination COMLEX Level 2-CE component. The COMLEX Level 1 must be taken at the end of the second year. Level 2-CE (Cognitive Evaluation) and Level 2-PE examinations may be taken after the second year of the COM curriculum. The COMLEX Level 3 may be taken at any time after graduation. **Students are responsible for the examination fee required for each examination administration.**

All medical students are required to pass COMLEX Level 1, Level 2-CE and Level 2-PE of the National Board of Osteopathic Medical Examiners examination.

- A. Passing the COMLEX Level 1 is a requirement for advancing in the clinical phase; passing Level 2-CE and 2-PE are requirements for graduation.
- B. A student may not take the COMLEX Level 1, COMLEX Level 2-CE and COMLEX Level 2-PE examinations more than three times each. Sponsorship to take a second or third examination is not automatic; permission must be obtained through the SPG Committee and the Dean of Academic Affairs. Permission to repeat the examination will be based on a review of the student's overall academic performance and professional behavior. If the SPG Committee denies permission to repeat an NBOME examination, the Committee will recommend dismissal from LECOM to the Dean of Academic Affairs.

- C. If a student takes the COMLEX Level 1, COMLEX Level 2-CE or Level 2-PE three times without passing, a recommendation for dismissal will be made by the SPG Committee to the Dean of Academic Affairs.
- D. COMLEX Level 1:
1. All students of the College are required to take the COMLEX Level 1 exam following successful completion of the preclinical curriculum with the following exceptions:
 - Students granted permission by the SPG Committee to postpone taking the exam because of hardship or other extenuating circumstances;
 - Students denied permission by the SPG Committee for academic reasons;
 - APAP and PCSP students who will follow the timeline specified in the APAP or PCSP Procedure Manual; or
 - APAP and PCSP students who will follow the timeline specified in the APAP or PCSP Policy and Procedures and Guidelines.
 2. All eligible and approved students must take COMLEX Level 1 by the earlier of 30 days after the last exam in a major course or the first day of non-vacation rotations. All other students must take it within three months after the end of the second year.
 3. All students who delay taking the exam must receive approval from the SPG Committee before beginning or returning to clinical training.
 4. Students who fail a COMLEX Level 1 exam will immediately be placed on probation and withdrawn from clinical rotations until they successfully pass the exam. Students will be required to attend a Board Review Course on campus prior to retaking the exam.
 5. Students failing the COMLEX Level 1 exam will be evaluated by the SPG Committee. The SPG Committee may grant permission for the student to take the Level 1 exam for a second time. Students who are unsuccessful on the Level 1 exam on the second attempt must petition the SPG Committee for permission to take Level 1 exam for the third time. Students failing the Level 1 exam on the third attempt will be recommended to the Dean of Academic Affairs for dismissal from the College by the SPG Committee.
 6. Student must be sponsored to take the COMLEX Level 1 exam by the college where they are enrolled in the third year. Therefore, students who

transfer from LECOM to another medical school at the end of the second year will not be sponsored by LECOM to take the exam.

E. COMLEX Level 2-CE and COMLEX Level 2-PE:

1. All students are required to take the COMLEX Level 2-CE during the first 3 months of their fourth year with the following exceptions:
 - Students granted permission by the SPG Committee to postpone taking the exam because of hardship or extenuating circumstances; or
 - Students denied permission to take the test by the SPG Committee for academic reasons.
 - APAP and PCSP students who will follow the timeline specified in the APAP or PCSP Procedure Manual.
 - APAP and PCSP students should promptly schedule the COMLEX-USA Level 2-PE and Level 2-CE exams as soon as they have received notification of passing COMLEX Level 1. The exams should be taken following the completion of at least six cumulative clinical rotations. Students should schedule the examinations well in advance as passage is required for graduation.
2. Students who fail the COMLEX Level 2-CE will be placed on probation. The SPG Committee will designate a specified timeframe for repeating the exam. Students must contact the Chairperson of the SPG Committee prior to registering for the Level 2-CE exam.
3. Students failing COMLEX Level 2-CE are required to return to campus for a Clinical Enrichment Session. They will be off schedule until they pass the exam. Any missed rotations must be completed prior to graduation.
4. Students who fail the COMLEX Level 2-CE for the second time must petition the SPG Committee for permission to take the exam a third time. These students will be required to take an approved commercial Board Review Course before registering for the exam a third time at their expense. They will be removed from rotations until a passing score is obtained.
5. Students failing the COMLEX Level 2-PE are required to return to campus for a period of remediation prior to rescheduling the exam. Such students may request a leave of absence until they have retaken the exam. Approval for a leave must be obtained from the Dean of Academic Affairs and the Associate/Assistant Dean of Clinical Education. Any missed rotations must be completed prior to graduation.

6. If a student takes the COMLEX Level 2-CE or COMLEX Level 2-PE three times without passing, the SPG Committee will recommend the student for dismissal to the Dean of Academic Affairs.
7. Students are required to pass the COMLEX Level 2-CE and the COMLEX Level 2-PE to be eligible for graduation.
8. If an APAP student fails any COMLEX exam, the SPG Committee will determine if the student will (1) be permitted to continue matriculation in APAP; (2) convert to the four year curriculum; or (3) be dismissed from LECOM.
9. If a student is unsuccessful for reasons of misrepresentation of data more than once in attempting the COMLEX Level 2-PE exam, the SPG Committee will recommend the student for dismissal to the Dean of Academic Affairs.
10. Approved students may take the COMLEX Level 2-PE exam during the third year if they have successfully completed a Clinical Skills Workshop and have no subject exam failures. Students will be subject to remediation fees if they must complete a Workshop.
11. NBOME has indicated that they will only allow 6 total attempts to pass the 4 COMLEX examinations.
12. Keyboard entry for COMLEX Level-2 PE will be implemented in July 2014.

2.1.24.1. COMLEX Examination Results

Examination results for all examination levels are released by the NBOME. Students must contact the NBOME directly to request transcripts of their examination results. Students who are required to have examination results sent on their behalf to internship and residency programs must contact the NBOME with their requests. All requests for transcripts must be submitted to the NBOME office in writing, by mail or fax, and accompanied by the appropriate fee. No requests are taken by telephone. The fee requirements for NBOME transcripts may be obtained by contacting the NBOME.

2.1.25. Letter of Evaluation of the Academic Dean of the College

The Academic Dean's Letter of Evaluation for the College of Medicine is an evaluation of the overall performance of the student. This letter reflects the observations of and interactions with each student that the Academic Dean has experienced during each student's tenure at LECOM.

This letter is based on each student's achievement in the LECOM curriculum and will include the student's current overall GPA. With the reports submitted by the Associate Dean of Preclinical Education and the Associate Dean of Clinical Education, this letter is intended to present a holistic evaluation of each student.

2.2. SCHOOL OF PHARMACY

2.2.1. History of the School of Pharmacy

In February 2000, a Feasibility Study Team was formed to explore the feasibility of establishing a School of Pharmacy. Finding that LECOM could direct sufficient resources and that there was sufficient need to justify the program, LECOM proceeded with the implementation phase. The School of Pharmacy opened in 2002 with an accelerated three year Doctor of Pharmacy (Pharm.D.) program. It is fully accredited by the Commonwealth of Pennsylvania and the Accreditation Council for Pharmacy Education (ACPE).

In 2005, a Task Force was formed to expand the LECOM School of Pharmacy to Bradenton, Florida. The inaugural class of 85 students began in the fall of 2007 utilizing the traditional four year program. In 2014, a Distance Education Pathway was added for an envisioned twenty four students per year.

The School of Pharmacy's mission is to prepare pharmacy professionals committed to provide high-quality, ethical, and empathetic patient-centered pharmaceutical care to serve the needs of a diverse population. Through the integration of the sciences with critical thinking skills and effective communication, LECOM will prepare future pharmacists to be strong patient advocates and leaders in their communities, in professional associations, and research activities.

2.2.2. The Philosophy of Patient-Centered Care of the School of Pharmacy

LECOM has endorsed the concept of patient-centered care. This concept was specifically incorporated into the School of Pharmacy's mission statement and by integrating the principles of patient-centered care throughout the School's professional program. Patient-centered practice requires the pharmacist to work in concert with the patient and the patient's other health care providers to promote health, to prevent disease, to assess, to monitor, initiate and to modify medication use to assure that drug therapy regimens are safe and effective. The goal of patient-centered care is to optimize the patient's quality of life and to achieve positive clinical outcomes within realistic economic expenditures. To achieve this goal, the pharmacist must accomplish the following:

- Establish and maintain a professional relationship with patients;
- Collect, organize, record and maintain patient-specific medical information;
- Evaluate patient-specific medical information and develop with the patient a drug therapy plan;
- Assure that the patient has all supplies, information and knowledge necessary to carry out the drug therapy plan; and
- Review, monitor and modify the drug therapy plan as necessary and appropriate in concert with the patient and the patient's other health care providers.

In addition, the pharmacist must accurately document the patient's progress in the pharmacy record and communicate such progress to the patient and to the patient's other health care providers as appropriate. The pharmacist also shares information with other health care providers as the setting for care changes, helping assure continuity of care as the patient moves from the community setting, to the institutional setting, to the long-term care setting.

2.2.3. Admissions Requirements – School of Pharmacy

Applicants shall meet these minimum requirements:

- A. Complete 60 semester hours of pre-professional course requirements from an accredited college or university in the United States before July 1, prior to matriculation. LECOM School of Pharmacy will not accept College Level Examination Credits (CLEP) for prerequisite courses. Advanced placement credits will be accepted for pre-requisite coursework with a score of 4 or higher. International Baccalaureate (IB) credits earned at an approved IB high school will be accepted for prerequisite coursework with a score of 5 or higher.
- B. Earn a minimum of a 2.7 grade point average on a 4.0 scale, with no required course grade lower than C (70%). Specific course requirements are as follows:
 - English: 6 semester hours
 - Biology (w/lab): 8 semester hours
 - General Chemistry (w/lab): 8 semester hours
 - Organic Chemistry (w/lab): 8 semester hours
 - Physics: 3 semester hours
 - Calculus: 3 semester hours
 - Statistics: 3 semester hours
 - Economics (macroeconomics, microeconomics or general): 3 semester hours
 - Introduction to Psychology or Sociology: 3 semester hours
 - General Education Electives: 15 semester hours

Total required hours is 60

Applicants must take general education electives in subject areas other than the

above prerequisites: such as humanities and social sciences. Requirements are subject to change.

- C. Take the Pharmacy College Admission Test (PCAT) if required. Applicants may submit PCAT scores from exams taken within three years prior to the date of matriculation. The applicant must arrange for Harcourt Assessment to send the PCAT scores directly to PharmCAS.

Applicants who have or will have completed an undergraduate degree at an accredited U.S. college or university prior to matriculation will not be required to take the PCAT exam or submit PCAT scores. If selected for an interview, a written assessment will be performed during the on-site interview for those applicants who have an undergraduate degree and have not taken the PCAT. Acceptance into the program will be contingent upon completion of the undergraduate degree prior to matriculation.

- D. Submit two letters of recommendation to PharmCAS (one letter must be from an undergraduate science professor).

2.2.4. Application Procedure for the School of Pharmacy

Individuals interested in applying to the LECOM School of Pharmacy must complete a Pharmacy College Application Service (PharmCAS) Application and a LECOM Supplemental Application. Separate PharmCAS and Supplemental applications must be completed for the Erie and Bradenton campuses.

2.2.4.1. PharmCAS Application

Applicants are required to submit an online application to PharmCAS (www.pharmcas.org) by March 1 of the application year. PharmCAS is a centralized application service that allows applicants to use a single application and one set of official transcripts to apply to multiple Pharm.D. degree programs. Applicants must designate the LECOM School of Pharmacy as a selected pharmacy institution. Applicants must submit all academic transcripts and two letters of recommendation to PharmCAS by March 1 of the application year. One letter should be from an undergraduate science professor. Additional information about PharmCAS and the on-line PharmCAS application may be obtained by contacting: PharmCAS, P.O. Box 9109, Watertown, MA 02471, (617) 612-2060, info@pharmcas.org.

The School uses a rolling admissions cycle between October and May. As candidates are interviewed, notifications of acceptance are mailed to selected applicants.

2.2.4.2. LECOM Supplemental Application

LECOM requires all applicants to submit a \$50.00 non-refundable application fee. Once LECOM receives the PharmCAS Application, applicants will receive an email message providing information and instructions to complete the Supplemental Application. The email message will include a username and password to access the secure LECOM Candidate Portal to complete the LECOM Supplemental Application and submit the \$50.00 non-refundable application fee. Payment of the \$50.00 application fee is required at the time the application is submitted. Applicants are encouraged to complete their applications as early as possible to receive early consideration for an interview. The deadline for submitting the LECOM Supplemental Application is April 1 of the application year.

2.2.5. Admissions Information

For further information about the School of Pharmacy, please contact the Office of Admissions for LECOM Erie at (814) 866-6641 or (941) 756-0690 for the Office of Admissions, LECOM Bradenton. Students interested in the Distance Pathway should contact the Bradenton Office of Admissions. Students who submit false written or oral information or falsified or modified documents to LECOM are subject to expulsion.

2.2.6. Transfer Policy

LECOM has established a transfer policy and procedure that is consistent with its educational mission and objectives for students requesting to transfer from other schools of pharmacy.

Students requesting to transfer into LECOM must provide the following:

- A. A completed PharmCAS application.
- B. Official transcripts from all previously attended institutions.
- C. A letter from the applicant indicating why they wish to transfer to LECOM and explaining any circumstances resulting in their request for a transfer from their current institution.
- D. A letter from the Dean of all professional schools attended giving the enrollment status of the student and the terms of withdrawal from that institution.
- E. Letters of recommendation from two (2) faculty members at the institution where the student is currently enrolled.
- F. LECOM Supplemental Application and \$50.00 non-refundable application fee for the School of Pharmacy.
- G. Additional documents or letters of evaluation as determined by the Admissions Committee may be requested.
- H. Official copy of all PCAT.

Acceptance of transfer students is dependent upon the student’s qualifications, curricular compatibility and available space in the class they wish to enter. Prior coursework will be honored to the extent that it is compatible with the required curriculum. Additional coursework may be required to satisfy LECOM’s curriculum. The Admissions Committee will evaluate prior course work to determine credit hours accepted for transfer.

Applicants requesting to transfer into the School of Pharmacy must be in good standing in their first or second year at an accredited pharmacy school. A student in the School of Pharmacy once admitted may not transfer credits or change from his/her original program pathway.

Students accepted for transfer must minimally complete their last two (2) years at LECOM. Applicants requesting to transfer into LECOM must be eligible for readmission to the school or college they are currently attending.

2.2.7. Tuition and Fees - School of Pharmacy – 2013-14

Tuition and fees are due and payable by registration, unless special arrangements have been made with the Accounting Office. *The School of Pharmacy reserves the right to change tuition and fees without advance notice and to make such changes applicable to present as well as future students.*

Application Fee	\$50
Matriculation Fee Nonrefundable fee (<i>payable upon submission of application for admission</i>)	\$500
Bradenton Tuition (FL Resident)	\$21,810
Bradenton Tuition (Out-of-State Resident)	\$25,030
Erie Tuition (PA and Out-of State Resident)	\$24,990
Distance Education Program	\$25,030
Curriculum Fee	\$300
Technology Fee (non-DE)	\$300
Technology Fee for Distance Education	\$1,300
Graduation Fee	\$250
Student Government Fee	\$50
Disability Insurance (Mandatory)	Age Dependent

Health Insurance (Mandatory Unless Covered) \$3,000

2.2.7.1. Additional Fees for the School of Pharmacy

Late Payment Fee (per week) \$50

Breakage Fee Cost of replacement
(Loss or damage to College property and equipment is charged to the student(s) responsible).

Transcript Fee \$5

Student Identification/Key Card – Replacement \$25

Remediation Course Fee \$500

Remediation Exam Fee \$100

2.2.8. The Curriculum

2.2.8.1. Introduction

The following are the curricular outcomes that are expected to be met after successfully completing the Pharmacy program. Graduates of the LECOM School of Pharmacy will be:

- **Responsible care givers** who are advocates for health improvement and are accountable for positive patient outcomes;
 - *This includes goals related to both treatment and prevention.*
- **Leaders** who endeavor to advance the profession of pharmacy by serving as role models in the health care community;
 - *This includes supervision of other employees, activity in professional organizations, teaching and/or precepting, working on multidisciplinary teams and setting up collaborative practice agreements.*
- **Professionals** who strive for continuous growth and improvement of personal attitudes, skills, and knowledge;
 - *Examples include a commitment to lifelong learning, integrity, communication skills, respect for others, ethics, and reliability.*
- **Team members** who promote open communication to create and maintain a

- dynamic relationship with patients and interdisciplinary colleagues;
- *Important skills for achieving this outcome include diplomacy, empathy, and cultural competence.*
- **Medication managers** who design, implement, monitor, evaluate, and modify evidence-based pharmaceutical care plans based on a patient’s specific needs.;
 - *Achieving this outcome will require health literacy and consideration of individual patients’ specific needs related to cultural, behavioral, or social factors.*
 - **Practitioners** who retrieve, analyze, and interpret professional, lay, and scientific literature, and apply the information in both patient-centered and population-based care;
 - **Experts** who utilize medication knowledge effectively, for example, interpreting and communicating the package insert to physicians, patients and other healthcare providers; and
 - *This requires mastery of the pharmaceutical sciences.*
 - **Pharmacists** who promote and ensure the safe, efficient and appropriate dispensing and delivery of medications.
 - *This involves acquisition of knowledge on medications, pharmacy operations, legal aspects of pharmacy practice, and the use of technology.*

2.2.8.2. Curricular Program of the Three-Year Pathway

PROFESSIONAL YEAR ONE
FALL/WINTER SEMESTER

	Credits		Credits
Drug Information I	1.5	Biochemistry II	1.5
Pharmacy, Drugs, and Healthcare	3.5	Effective Communication in Pharmacy Practice	1.5
Pharmacy Calculations	1.5	Microbiology	2
Immunology	1.5	Microbiology Lab	0.5
Pharmaceutics I	2	Pharmaceutics II	2
Biochemistry I	2	Pharmaceutics II Lab	1

		Anatomy and Physiology I	2
		Anatomy and Physiology I Lab	0.5
		Research Methods and Epidemiology	2
Total	12	Total	13

Professional Year One
SPRING/SUMMER SEMESTER

	Credits		Credits
Biochemistry III	1.5	IPPE Institutional	4
Pharmacology/Medicinal Chemistry I	0.5	IPPE Community	4
Pharmacotherapeutics I	2		
Pharmacist Provided Care	1.5		
Anatomy & Physiology II	2		
Anatomy & Physiology II Lab	0.5		
Basic Pharmacokinetics	2.5		
Sterile Dosage Forms	0.5		
Sterile Dosage Forms Lab	0.5		
Total	11.5		

PROFESSIONAL YEAR TWO
FALL/WINTER SEMESTER

	Credits		Credits
Complementary and Alternative Medicine	2	Clinical Laboratory & Physical Assessment	1.5
Clinical Pharmacokinetics	2	Pharmacology/Medicinal Chemistry III	3
Pharmacology/Medicinal Chemistry II	2.5	Pharmacotherapeutics III	4.5
Pharmacotherapeutics II	4.5	Pharmacotherapeutics III Lab	0.5

Pharmacotherapeutics II Lab	0.5	Pharmacy Practice Management	2
Professional Elective	2	Drug Information II	1
Total	13.5	Total	12.5

Professional Year Two
SPRING/SUMMER SEMESTER

	Credits		Credits
Patient Safety & Medication Related Errors	1.5	Capstone Course	2.5
Pharmacology/Medicinal Chemistry IV	3.5	Graduation Research Seminar	1
Pharmacotherapeutics IV	4.5	Pharmacotherapeutics V	4.5
Pharmacotherapeutics IV Lab	0.5	Pharmacotherapeutics V Lab	0.5
Pharmacy Law	2	Pharmacogenomics	2
Professional Elective	2	Professional Elective	2
Total	14.0	Total	12.5

PROFESSIONAL YEAR THREE
FALL/WINTER SEMESTER

	Credits
Advanced Pharmacy Practice Experience (3 Rotations)	18
Total	18

Professional Year Three
SPRING/SUMMER SEMESTER

	Credits
Advanced Pharmacy Practice Experience (3 Rotations)	18
Total	18

Total Professional Curriculum In Pharmacy Credits	133
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2.2.8.2.1. Course Descriptions of the Three-Year Pathway

DGI 1001, DGI 1002 – Drug Information I - II – 2.5 Total Credit Hours

The structure of a drug information center as well as the role and functions of a drug information pharmacist will be reviewed. The students will be familiarized with the skills required to handle different types of drug information questions. Technology will be fully utilized.

PHS 1003 - Pharmacy, Drugs and Healthcare – 3.5 Credit Hours

This course will introduce students to the pharmacy profession and how it fits within the U.S. health care delivery system. It will provide an overview of the basic structures and operations of the US health care delivery system including its historical origins, and the technical, economic, political, and social forces that impact it. Students will learn how the profession of pharmacy evolved in the health care delivery system and will understand the history of the profession, pharmaceutical care concepts including ethics, and areas of practice for pharmacists. Students will begin learning information about the most commonly prescribed medications.

PCC 1008 – Pharmaceutics I – 2 Credit Hours

The primary content of this course is a study of physical pharmacy.

PCC 1009 – Pharmaceutics II – 2 Credit Hours

This course will cover and integrate applied drug-delivery principles in the design, development, manufacture and stability of safe and effective pharmaceutical dosage forms and finished drug products. Specific topics/concepts will focus on the physical, chemical and biological principles essential for understanding basic pharmaceutics, pharmaceutical dosage forms and drug delivery systems. The topics/concepts will include the design, formulation and manufacturing of various pharmaceutical dosage forms.

MCB 1002 – Microbiology – 2 Credit Hours/MCB 1007 Microbiology Lab – 0.5 Credit Hours

This course is a comprehensive introduction to bacteria, viruses, and fungi. The laboratory is an integral and important part of this course, providing the basic skills needed to work with bacteria: proper use of the microscope, how to prepare stained slides, aseptic technique for transfer and inoculation of bacteria, and how to use various media to select, isolate, and characterize bacteria.

PCC 1003 – Pharmacy Calculations – 1.5 Credit Hours

Students will be required to perform dosage calculations based on individual patient needs and characteristics as well as computations required for accurate preparation of solid and liquid dosage forms, injectable medications, isotonic solutions and extemporaneously compounded prescription products.

BCH 1003, 1006, 1007 – Biochemistry I – III – 5 Credit Hours

This three course series begins by introducing the student to foundational concepts in biochemistry and other pharmaceutical sciences. The first course explores the basics and molecular basis for important physiological processes supporting a healthy state. Disease states will also be examined with a slight emphasis on specific biological molecules that are specific targets of drug action. The second course in the series will augment the understanding of how

drugs are rationally designed based on their interactions with specific biological molecules which affect the function of targeted metabolic pathways. The final course presents a study of the structure, function and interactions of molecules found in biological systems: amino acids, peptides and proteins, nucleotides and nucleic acids, carbohydrates, lipids, and hybrid molecules. The spotlight of Biochemistry II will be biosynthesis of carbohydrate, lipids, and steroids; the molecular transmission of the genetic information; the structure of chromosomes and genes; replication and transcription of DNA; protein synthesis; receptors, and signal transduction; gene repair, mutation, recombination, and cloning. Biochemistry II will also highlight the production of major biotechnology and pharmaceutical products, including antibiotics and gene therapy.

COM 1002 – Effective Communication in Pharmacy Practice – 1,5 Credit Hours

This course is designed to provide students with an opportunity to learn, observe, apply and receive feedback on effective communication skills and techniques. It will build on the medication counseling information students learn in Introduction to Pharmacy. Students will be instructed on important principles required to develop positive relationships and promote positive therapeutic outcomes: to engage, empathize, educate and enlist.

IMM 1001 – Immunology – 1.5 Credit Hours

This course involves a study of the organization, function, and clinical significance of the immune system.

PCC 1002 – Pharmaceutics II Lab – 1 Credit Hour

The laboratory will allow the student to apply these calculations in compounding prescriptions. Students will be able to learn compounding techniques in creating different dosage forms.

PHY 1009 – Anatomy and Physiology I with Lab – 2.5 Credit Hours

This course involves a study of the basic principles of human physiology and anatomy. Emphasis will be placed on the nervous and cardiovascular systems.

PCC 1010 – Basic Pharmacokinetics – 2.5 Credit Hours

This course provides students with a qualitative and quantitative overview of drug disposition and the processes important to disposition, namely, absorption, distribution, metabolism and excretion. It is anticipated that students will learn how to calculate various pharmacokinetic parameters that are important to the therapeutic use of drugs. Finally, by understanding and calculating the impact of various factors on drug disposition, students will develop an understanding of how therapeutic dosing may be modified.

PHY 1012 – Anatomy and Physiology II w/Lab – 2 .5 Credit Hours

This course is a continuation of Physiology and Anatomy I. Emphasis will be placed on the circulatory, renal, respiratory, endocrine, and gastrointestinal systems.

PCC 1012 – Pharmacist Provided Care – 1.5 Credit Hours

This course will combine early pharmacy experiences and didactic teaching. This will allow the students to experience, at an early stage of training, real life pharmacy practice and to interact

with other health care providers. It will serve the purpose to heighten the team concept as well as to develop the professionalism and the compassion necessary for the development of a health care practitioner.

RES 1001 – Research Methods & Epidemiology – 2 Credit Hours

This course builds upon concepts presented in the Drug Information course sequence. Didactic lectures will add basics of evidence-based medicine. The students will then be asked to put this information into practice through evaluation of assigned primary literature research papers. Students will then be asked to discuss the assigned paper in class in a “journal club” format. Students will expand upon the concept of merely reading articles to building a literature review and/or research proposal. Pharmacoepidemiology, by drawing upon the concepts from both pharmacology and epidemiology, will deal with the study of the utilization and effects of drugs in large numbers of people.

FRM 1002 – Sterile Dosage Forms – 0.5 Credit Hour/FRM 1003 Lab – 0.5 Credit Hours

This course introduces the organization and administration of an admixture program and admixture techniques. The proper utilization of parenteral products, as well as parenteral drug compatibility literature is also considered.

PHR 1001-PH1-E - IPPE Community – 4 Credit Hours

The goal of this rotation is to have the student gain experience in the competencies necessary in the daily practice of community pharmacy operations through active learning and participation. The emphasis is on the operations, distribution system, professional conduct and direct patient-care in the community environment. The following three (3) steps of the medication-use system will be emphasized: selecting, procuring and storing; ordering and transcribing; and dispensing and preparation.

PHR 1002-PH1-E – IPPE Institutional – 4 Credit Hours

The goal of this rotation is to have the student gain experience in the competencies necessary in the daily practice of institutional (hospital, long-term care, etc.) pharmacy operations through active learning and participation. The emphasis is on the operations, distribution system, professional conduct and direct patient-care in the hospital environment. The following three (3) steps of the medication-use system will be emphasized: selecting, procuring and storing; ordering and transcribing; and dispensing and preparation.

PHC 1006, PHC 1007, PHC 1008, PHC 1009 -

Pharmacology/Medicinal Chemistry I, II, III and IV – 9.5 Credit Hours

These courses will present, in a coordinated manner, basic principles, medicinal chemistry and pharmacology of therapeutic agents currently available to treat autonomic, cardiovascular and neurological disorders. The major focus of each topic will be pharmacology and medicinal chemistry associated with drug receptor interactions and subsequent biological responses, biochemical mechanisms of drug action, adverse and toxic effects, contraindications and important drug-drug interactions. Chemical features of therapeutic agents required to elicit biological response and their role in affecting physicochemical properties as well as important

pharmacokinetic properties will also be presented. This approach will provide a clear understanding of the current agents available, and lay the foundation for the study and practice of the principles of pharmacotherapy. The course will use traditional lecture-based learning in addition to the presentation of case-based problems, in-class activities and scientific literature, where appropriate.

AME 1001 – Complementary and Alternative Medicine – 2 Credit Hours

This course covers different aspects of natural products used as pharmaceuticals, including both plant-derived and microbial-derived (antibiotics) products. In addition, this course will introduce the students to other aspects of medical care as alternative medical therapies used in the US and will study the potential drug interactions, adverse effects, and usage in the clinical arena.

PCK 1001 – Clinical Pharmacokinetics – 2 Credit Hours

The course will apply the basic concepts of Biopharmaceutics/ Pharmacokinetics to the clinical management of various patients' conditions. The goal is to optimize therapy, achieve maximum efficacy while preserving safety for the patients.

***PGI 1007, PHT 1002, PHT 1003, PHT 1004, PHT 1005 –
Pharmacotherapeutics I – V with labs – 20 Credit Hours***

These five courses will cover pathophysiology and therapeutics per organ systems. There is a review of these organ systems: respiratory, cardiovascular, degenerating diseases, genital urologic diseases, endocrinology/gastro-intestinal diseases, critical care, infectious diseases, neurology, psychiatry, oncology, and women's health. The courses of Pharmacotherapeutics will be taught in a sequential and integrative manner to tie in the knowledge and concepts from Medicinal chemistry coupled with the Pharmacology of the drugs involved in the corresponding organ system and to the pathophysiology and therapeutic principles in clinical practice. This will enable the students to relate the knowledge from both basic sciences and clinical sciences.

PHT 1012-1015 Pharmacotherapeutics Lab Series – 2 Credit Hours

These courses are the active learning, clinical application to the Pharmacotherapeutic lecture series.

CLP 1001 – Clinical Laboratory & Physical Assessment – 1.5 Credit Hours

The students will learn the basics in physical assessment and monitoring the effects of drugs in patients. The clinical laboratory component will cover the normal and abnormal laboratory values from different organ systems. This course will prepare the students for upcoming courses in pathophysiology and therapeutics.

ADM 1005 – Pharmacy Practice Management – 2 Credit Hours

This course gives emphasis to the managerial aspects of pharmacy practice within the health care system. This course provides the basic financial and operational management knowledge and skills necessary for successful professional practice in any venue.

PHE 1020 – Patient Safety & Medication Related Errors – 1.5 Credit Hours

The main objective of this course is to expose pharmacy students to a background that will allow

reliable translation of the science of preventable medication errors into clinical practice. Upon completion of this course, students will have the basic knowledge to understand the science of errors and basis of safe practices. The students will also be expected to gain competency in their analytical skills that are necessary to perform system analyses of adverse events, design simple processes, build and participate in multidisciplinary teams, and implement practices that promote patient safety.

LAW 1003 – Pharmacy Law – 2 Credit Hours

This course will examine federal and state laws and regulations regarding the practice of pharmacy and the regulation and control of drugs, cosmetics, and medical devices.

ADM 1012 – Capstone Course – 2.5 Credit Hours

This course will integrate what the student has learned across many disciplines throughout the didactic course in order to prepare them for success in APPE rotations. The course will utilize active learning in the format of case presentations, journal clubs, and topic discussions. The focus here is the completion of a high-quality science-based drug evaluation project in which the students will provide their conclusion on the therapeutic value of a new drug.

GDS 1002 – Graduation Research Seminar – 1 Credit Hour

In this course, students will work with an assigned research mentor. The student is expected to complete a research project. The methodology and expectations of the proposal build upon information presented in the research methods class of the first year.

PHG 1001 – Pharmacogenomics – 2 Credit Hours

This course provides students with an understanding of the ways that inherited variations in genes affects response to drugs, and how an understanding of these variations can be used to predict response. The course will provide an overview of the principles of genetic medicine and bioinformatics, and consider ethical, legal and social issues in genomics. The impact of genetics on drug metabolism, and drug transporters will be discussed as well as the role of pharmacogenomics in drug discovery and development. Finally, the role that pharmacogenomics plays in treatment of specific diseases will complete the course.

PHR 1005 PH3 E - APPE Advanced Community – 6 Credit Hours

Under the supervision of the pharmacy preceptor, the student will provide direct patient-centered care in a community pharmacy setting. Students will experience the operation and management of community pharmacy systems and the functions and responsibilities of a pharmacist in a community setting. Students will have the opportunity to be involved in all aspects of the medication use process and health care delivery in the community setting, including the need for continuity of care.

PHR 1017 PH3 E - APPE Advanced Institutional – 6 Credit Hours

Under the supervision of the pharmacy preceptor, the student will provide direct patient-centered care in the institutional, inpatient setting (including hospital long-term care, etc.). The student will experience the operation and management of institutional pharmacy systems and the

functions and responsibilities of a pharmacist in the institutional setting. Students will have the opportunity to be involved in all aspects of the medication use process and health care delivery in the institutional setting, including the need for continuity of care.

PHR 1018 PH3 E – APPE Inpatient/Acute Care Medicine – 6 Credit Hours

Under the supervision of the preceptor, students put into application the knowledge of pharmacology, pharmaceuticals, drug information, medication safety, communication skills, critical thinking, pathophysiology, and therapeutics to the care of patients (all ages) as well as share their knowledge with health care team members in an inpatient/acute care setting. The student will interact with all members of the health care team to provide patient-centered care and include a focus on continuity of care.

PHR 1007 PH3 E – APPPE Ambulatory Care – 6 Credit Hours

This rotation is designed to offer the student the opportunity to experience firsthand the functions and responsibilities of a pharmacist in the Ambulatory Care setting (patients being treated at home or at facilities but not admitted for inpatient services). Under the supervision of the preceptor, students will apply the knowledge of pharmacology, pharmaceuticals, drug information, counseling skills, critical thinking, pathophysiology, and therapeutics to the care of patients (all ages), as well as share their knowledge with health care team members. The student will interact with all members of the health care team to provide patient-centered care and include a focus on continuity of care.

PHR 1014 PH3 E – APPE Elective I – 6 Credit Hours

PHR 1015 PH3 E – APPE Elective II – 6 Credit Hours

Each elective rotation offers different and specific learning experiences based on the site and the type of specialties. Examples of potential rotation settings include any of the required rotation sites, research, management, drug information, education, managed care, long-term care, hospice, home health care, nuclear, etc. Students will select elective rotations to individualize their training and experience in preparation for their careers as well as to complement the experiences gained in the required rotations.

2.2.8.2.2. Elective Courses for the Three Year Pathway

PHE 1029 – Geriatric Pharmacy Practice – 2 Credit Hours

This course will prepare the student for an active learning experience in any practice setting that treats the geriatric population. Didactic and active learning techniques will be used to meet the course objectives.

PHE-1016 - Drug Interactions – 2 Credits

This course covers pharmacokinetic and pharmacodynamic drug-drug interactions. This course will integrate the knowledge learned in previous courses, such as pharmacology, medicinal chemistry and pharmacotherapeutics. Students will be required to develop systematic approaches for analyzing and assessing different drug-drug interactions. The course will be

organized for open discussion of clinically relevant drug-drug interactions as described in current literature. Students will have the opportunity to discuss clinically relevant drug-drug interactions, discuss patient specific drug-drug interactions and utilize drug information sources to determine the importance of specific drug interactions.

PHE 1059 – Personal Finance Management – 2 Credits

In this introductory personal finance management course, students will learn important basic personal finance principles. Students will gain knowledge in budget creation, personal finance plan development and making responsible choices regarding their finances.

PHE 1061 – Ownership in Pharmacy – 2 Credits

This 3 credit-hour elective is designed to give pharmacy students an understanding of independent community pharmacy ownership as well as other pharmacist entrepreneurial positions including long-term care consulting, independent contracting, research consultation, concierge pharmacists, compounding/veterinary practice and professional organization consulting.

PHE 1006 – Advanced Compounding – 2 Credits

This advanced compounding elective will provide professional pharmacy students with the background knowledge and practical laboratory experience needed to solve difficult pharmaceutical compounding problems and allow students to create unique, patient-specific pharmaceutical dosage forms used in contemporary pharmacy practice. The elective will provide students with exposure to advanced pharmaceutical techniques, which may be required by some states for licensure.

PHE 1036 – Drugs of Abuse – 2 Credit Hours

This course will be designed to help the student develop the knowledge and understanding of drugs and substances of abuse. The course will provide the student with the knowledge of the different types of drugs of abuse (psycho-depressants, psycho-stimulants and psychedelics). The student will gather knowledge on aspects of drug abuse (personal dimension, societal dimension and time dimension). Students will understand theories for the use and history of abuse for certain drugs. The pharmacology, mechanism of action and side effect profiles will be studied. At the completion of the course, the student will have a full understanding and knowledge of what drugs have an abuse potential.

PHE 1044 – Independent Research –2 Credit Hours

This course will provide an opportunity for pharmacy students to conduct pharmaceutical research. Students will conduct scientific experiments such as histological and analytical studies. Additionally, students will also participate in animal studies such as maintaining a mouse breeding colony, learning different injection techniques, lethality studies, etc. This course will also provide an opportunity to the students to get acquainted with scientific writing such as written experimental protocols, presenting scientific information and searching literature.

PHE 1068 – Empathy and Patient Care – 1.5 Credit Hours

This course will examine the components of empathy through readings, case reports, facilitated conversations, discussions and reflection. The course will be offered mainly via the LECOM portal online, but it will also include live discussion.

PHE 1037 – Health Care and Prevention – 1.5 Credits Hours

This course has been designed to create pharmacists who are aware of unhealthy practices of people of the United States. Therefore, a portion of the course will be exploring the health of other countries that are economically equivalent to the United States. The students will look at diet, education, stress levels, fast food consumption and exercise. Students will learn about the amount of money now being spent creating an environment where people are aware of controlling their weight and of doing exercise. In order to be able to provide medical care for everyone in this country, the population must take responsibility for their own health. During the 10 weeks of this course, the student will study diet and exercise plans. The main focus will be to understand and eliminate metabolic syndrome – a disease that is self-inflicted, the majority of time, through poor lifestyle habits.

PHE 1069 – Pharmacy Leadership and Management – 2 Credit Hours

Successfully working in pharmacy practice requires pharmacists to display leadership and management skills. Exposure to a variety of practical issues and their solutions should help prepare the pharmacy student for the transition from student to practicing pharmacists in a leadership role. This three-credit elective will allow students to examine a variety of topics integral to managing and practicing in any type of pharmacy setting. Students will have reading and writing assignments via the portal and will also participate in discussion boards.

PHE 1028 Landmark Clinical Trials Elective – 2 Credit Hours

PHE 1031 Writing in Science Elective – 2 Credit Hours

PHE 1038 Toxicology Elective – 2 Credit Hours

2.2.8.3. Bradenton Campus – The Traditional Four-Year Pathway

The following is the curriculum for the school’s traditional four-year pathway to the Pharm.D. degree:

Pharmacy Year 1 – Fall

Course Title	Credits	Course Number
Biochemistry I	2	BCH 1003 PH1 B
Pharmaceutics I w/Lab	4	PCC 1018 PH1 B

Physiology and Anatomy	4	PHY 1014 PH1 B
Pharmaceutical Calculations	1	PCC 1001 PH1 B
Pharmacy, Drugs and Healthcare	4	PCC 1023 PH1 B
<i>Semester Credits Total</i>	15	

Pharmacy Year 1 – Spring

Course Title	Credits	Course Number
Biochemistry II	2	BHC 1006 PH1 B
Microbiology	4	MCB 1001 PH1 B
Pharmacist Provided Care I	2	PCC 1012 PH1 B
Pharmaceutics II/Lab	4	PCC 1019 PH1 B
Pharmacy Law	2	LAW 1003 PH1 B
Drug Information	2	DGI 1003 PH1 B
Effective Communications	1	COM 1003 PH1 B
<i>Semester Credits Total</i>	17	
Total Credits Pharmacy Year 1	32	

Pharmacy Year 2 – Fall

Course Title	Credits	Course Number
IPPE Community	4	PHR 1001 PH2 B
IPPE Institutional	4	PHR 1002 PH2 B
Basic Pharmacokinetics	3	PCK 1002 PH2 B
Research Methods and Pharmacoepidemiology	2	RES 1001 PH2 B
Pharmacist Provided Care II	1	PCC 1022 PH2 B
PS2 Pharmacy Elective I	2	PHE 1002 PH2 B
Semester Credits Total	16	

Pharmacy Year 2 – Spring

Course Title	Credits	Course Number
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Clinical Pharmacokinetics	3	PCK 1001 PH2 B
Pharmacology/Medicinal Chemistry I	4	PHC 1006 PH2 B
Clinical Skills	2	CLP 1001 PH2 B
Pharmacotherapeutics I	4	PHT 1001 PH2 B
PS2 Pharmacy Elective II	2	PHE 1003 PH2 B
<i>Semester Credits Total</i>	15	
Total Credits Pharmacy Year 2	31	

Pharmacy Year 3 – Fall

Course Title	Credits	Course Number
Pharmacotherapeutics II	5	PHT 1007 PH3 B
Pharmacology/Medicinal Chemistry II	4	PHC 1007 PH3 B
Pharmacogenomics	2	PHG 1001 PH3 B
Drug Literature Evaluation	2	DGI 1004 PH3 B
Management and Patient Safety	3	MPS 1001 PH3 B
Pharm.D. Seminar I	1	PHE 1022 PH3 B
Semester Credits Total	17	

Pharmacy Year 3 – Spring

Course Title	Credits	Course Number
Pharmacotherapeutics III	6	PHT 1008 PH3 B
Pharmacology/Medicinal Chemistry III	4	PHC 1008 PH3 B
Pharmacoeconomics and Outcomes Assessment	2	RES 1002 PH3 B
Pharm.D. Seminar II	1	PHE 1023 PH3 B
PS3 Professional Elective	2	PUB 1002 PH3 B
<i>Semester Credits Total</i>	15	
Total Credits Pharmacy Year 3	32	

Pharmacy Year 4

**4 credits per Advanced Professional Practice Experience (APPE) = 36 credits;
Courses taken June through May, providing 9 APPEs at 4 weeks each, 11 months to complete**

Course Title	Credits	Course Number
APPE Advanced Community	4	PHR 1005 PH4 B
APPE Advanced Institutional	4	PHR 1017 PH4 B
APPE Acute Care Medicine I	4	PHR 1010 PH4 B
APPE Acute Care Medicine II	4	PHR 1011 PH4 B
APPE Ambulatory Care I	4	PHR 1012 PH4 B
APPE Ambulatory Care II	4	PHR 1013 PH4 B
APPE Elective I	4	PHR 1014 PH4 B
APPE Elective II	4	PHR 1015 PH4 B
APPE Elective III	4	PHR 1016 PH4 B
Total Credits Pharmacy Year 4	36	

2.2.8.3.1. Course Descriptions for the Four-Year Pathway

Pharmacy, Drugs, and Healthcare – PCC 1023 PH1 B—4 Credit Hours

This course will introduce students to the pharmacy profession and how it fits within the U.S. health care delivery system. It will provide an overview of the basic structures and operations of the US health care delivery system including its historical origins, and the technical, economic, political, and social forces that impact it. Students will learn how the profession of pharmacy evolved in the health care delivery system and will understand the history of the profession, pharmaceutical care concepts including ethics, and areas of practice for pharmacists. Students will begin learning information about the most commonly prescribed medications.

BCH 1003 and BCH 1006 PH1 B – Biochemistry I – II – 4 Credit Hours

These courses provide the molecular basis for important physiological processes and disease states and the biological molecules that are the targets of drugs. This course will focus on two broad areas: (1) modern concepts of protein structure and function; and (2) traditional intermediary metabolism, emphasizing relationships to disease states such as diabetes and hyperlipidemia. This course, and the companion microbiology course in the spring semester, will provide the pharmacy student the basic scientific insight into how drug targets are chosen and developed, and the mechanism by which they alleviate a disease.

PCC 1018 PH1 B – Pharmaceutics I w/Lab – 4 Credit Hours

This is the first of a two-course sequence optimally designed for first year pharmacy students to teach them basic concepts and topics about the basic chemistry, physical-chemical properties of therapeutics agents and their importance in drug delivery systems. It also covers absorption, acid/base theory and their role in drug absorption and the characterization of powders properties and their utility in the development of safe and effective pharmaceutical dosage forms. Furthermore, this course will integrate important concepts from the physical pharmacy to illustrate design and development of conventional drug delivery systems as well as novel drug delivery systems used currently in pharmacy practice. This course will then integrate physical chemical principles in the design, development, and manufacture of stable, safe and effective dosage forms and finished drug products. Specific topics/concepts will focus on the physical, chemical and biological principles essential for understanding basic pharmaceutics, pharmaceutical dosage forms, principles of biopharmaceutics and pharmacokinetics. The specific topics/concepts will include physical principles of drug degradation, stability and orders of drug degradation and dosage forms like pharmaceutical solutions and disperse systems.

MCB 1001 PH1 B – Microbiology – 4 Credit Hours

This course is designed as an introductory course in Microbiology with an emphasis on the basic structure-function (virulence) aspects of microorganisms and targets for antimicrobial action of anti-infectives. The following are the two general objectives of the course: (1) provide a foundation on which the students can build subsequent knowledge on therapeutics and expertise; and (2) convey fundamental concepts that will enable the students to make sound future judgments and consultations.

PCC 1001 PH1 B – Pharmaceutical Calculations – 1 Credit Hour

This course will cover various aspects of pharmaceutical calculations to provide the student with an understanding of what the practice of pharmacy will require of them as practitioners when presented with patient prescriptions or medication orders. The course focuses on the calculations a pharmacist is likely to perform in a contemporary pharmacy. It is designed for the first year pharmacy students to teach basic concepts and principles involved in calculations that are necessary in the compounding as well as intravenous preparations. Specific topics will focus on the calculation of isotonic, milliequivalence, milliosmolar solutions, ratio and proportions, enlarging and reductions in the formula, various percentage calculations, aliquot and allegation methods, dilutions and use of the specific gravity to convert amount into volume and vice-versa.

PHY 1014 PH1 B – Physiology and Anatomy – 4 Credit Hours

This course will relate anatomical structure of cells, tissues and organ systems to physiological functions. Attention also will focus on etiology, homeostasis, and clinical consequences of abnormal physiological function. The course is tailored to the needs of the pharmacy student and includes special emphasis to the molecular basis of physiological function as the target of pharmacotherapeutic intervention.

PCC 1012 PH1 B – Pharmacist Provided Care I; PCC 1022 PH2 B Pharmacist Provided Care II– 3 Credit Hours

These courses are designed to provide students with appropriate information and experiences to acquire the necessary skills to become an effective health care practitioner. The courses will engage the students in active learning to enhance their self-care medication knowledge. They also will develop the students' ability to document patient encounters by writing appropriate patient care plans. The courses will heighten the team concept as well as develop professionalism and communication skills.

PCC 1019 PH1 B – Pharmaceutics II w/Lab – 4 Credit Hours

This second course in this series provides students with a qualitative and quantitative overview of drug disposition and the processes important to disposition, namely, absorption, distribution, metabolism and excretion. Sterile dosage forms will also be introduced teaching the organization and administration of an admixture program and admixture techniques. The proper utilization of parenteral products, as well as parenteral drug compatibility literature is also considered. Several laboratory sessions will be devoted to sterile dosage forms.

LAW 1003 PH1 B – Pharmacy Law – 2 Credit Hours

This course will examine the U.S. legal system, basic jurisprudence, federal and state laws, regulations and related ethical issues regarding the development and approval of drugs and the practice of pharmacy and the regulation and control of drugs, cosmetics, and medical devices. Tort and contract law will also be explained.

DG1 1003 PH1 B – Drug Information – 2 Credit Hours

This course will introduce the concepts of the systematic approach to drug information questions and the information retrieval process needed to answer them. Primary, secondary and tertiary literature will also be introduced. In addition, adverse drug reaction and medication error reporting, clinical practice guidelines, the role of the Pharmacy & Therapeutics committee and drug policy/medication use evaluation will be discussed. Fundamentals of medical writing and documentation and the ethics of providing drug information will be presented. Students will begin to determine the quality of drug information sources, including the internet used by both patients and health care professionals. This course will use active learning strategies to help the students learn important drug information skills.

COM 1003 PH1 B – Effective Communications – 1 Credit Hour

This course is designed to provide students with an opportunity to learn, observe, apply and receive feedback on effective communication skills and techniques. It will build on the medication counseling information students learn in Introduction to Pharmacy. Students will be instructed on important principles required to develop positive relationships and promote positive therapeutic outcomes: engage, empathize, educate and enlist.

PHR 1001 PH2 B – Introductory Pharmacy Practice Experience – Community – 4 Credit Hours

The goal of this rotation is to have the student gain experience in the competencies necessary in the daily practice of community pharmacy operations through active learning and

participation. The emphasis is on the operations, distribution system, professional conduct and direct patient-care in the community environment. The following three (3) steps of the medication-use system will be emphasized: selecting, procuring and storing; ordering and transcribing; and dispensing and preparation.

PHR 1002 PH2 B – Introductory Pharmacy Practice Experience – Institutional – 4 Credit Hours

The goal of this rotation is to have the student gain experience in the competencies necessary in the daily practice of institutional (hospital, long-term care, etc.) pharmacy operations through active learning and participation. The emphasis is on the operations, distribution system, professional conduct and direct patient-care in the hospital environment. The following three (3) steps of the medication-use system will be emphasized: selecting, procuring and storing; ordering and transcribing; and dispensing and preparation.

PCK 1002 PH2 B Basic Pharmacokinetics – 3 Credit Hours

This course will cover the theoretical and practical topics of bio-pharmaceutics and pharmacokinetics as a necessary foundation for competency in the future clinical pharmacokinetics course. The course will provide the student with an understanding of conceptual and mathematical treatment of ADME processes (Absorption, Distribution, Metabolism and Excretion) in a classroom and, perhaps, in a small group learning environment.

PHC 1006 PH2 B, PHC 1007 PH3 B, PHC 1008 PH3 B – Pharmacology/Medicinal Chemistry I - III – 12 Credit Hours

These three courses will introduce students to the coordinated study of the molecular, cellular and physiologic bases of drug action, the influence of chemical and physical properties in structural activity relationships and drug design as it relates to drug metabolism and drug action. The course will begin with general principles, and the remainder will familiarize students with various classes of drugs that act at various organ systems. Chemistry and quantitative structural activity relationships, mechanisms of action, toxicity profiles, and pharmacokinetics associated with these drugs will be emphasized.

RES 1001 PH2 B – Research Methods and Pharmacoepidemiology – 2 Credit Hours

Students will be familiarized with statistical designs and their applications in different types of studies. The students will also learn the principles of pharmacoepidemiology and its applications to the practice of Pharmacy and Clinical Sciences. The course will include a group project to develop a research protocol and informed consent to be submitted as a paper and presented to a mock Institutional Review Board.

PCK 1001 PH2 B – Clinical Pharmacokinetics – 3 Credit Hours

The course will apply the basic concepts of biopharmaceutics to the clinical management of various patients' conditions. The goal is to optimize therapy, achieve maximum efficacy while preserving safety for the patients.

CLP 1001 PH2 B – Clinical Skills – 2 Credit Hours

The students will learn the basics in physical assessment and monitoring the effects of drugs in patients. The clinical laboratory component will cover the normal and abnormal laboratory values from different organ systems. This course will prepare the students for upcoming courses in pathophysiology and therapeutics.

***PHT 1001 PH2 B, PHT 1007 PH3 B, PHT 1008 PH3 B –
Pharmacotherapeutics I – III – 15 Credit Hours***

These three courses will cover pathophysiology and therapeutics of each organ system. Course work will cover the following therapeutic topics: dermatology, respiratory and cardiovascular ailments, degenerating diseases, genital-urologic diseases, endocrinology/gastrointestinal diseases, critical care, infectious diseases, neurology, psychiatry, oncology, and women's health. The courses of Pharmacotherapeutics will be taught in a sequential and integrative manner to tie in the knowledge and concepts from medicinal chemistry coupled with the pharmacology of the drugs involved in the corresponding organ system and to the pathophysiology and therapeutic principles in clinical practice. This will enable the students to relate the knowledge from both basic sciences and clinical sciences.

PHG 1001 PH3 B – Pharmacogenomics – 2 Credit Hours

This course provides students with an understanding of the ways that inherited variations in genes affect response to drugs, and how an understanding of these variations can be used to predict response. The course will provide an overview of the principles of genetic medicine and bioinformatics, and consider ethical, legal and social issues in genomics. The impact of genetics on drug metabolism and drug transporters will be discussed as well as the role of pharmacogenomics in drug discovery and development. The role that pharmacogenomics plays in treatment of specific diseases will complete the course.

DG1 1004 PH3 B – Drug Literature Evaluation – 2 Credit Hours

Students will read and critically evaluate current topics in the medical and scientific literature using the evidence based approach to clinical decision-making. Students will learn strategies to delineate relevant questions, critically appraise evidence and its applicability to the clinical question and formulate conclusions and/or recommendations based on scientific data. An emphasis will be placed on using landmark clinical trials as examples of the utility of evidence based medicine as it applied to clinical practice.

***PHE 1022 PH3 B, PHE 1023 PH3 B –
Pharm.D. Seminar I – II – 2 Credit Hours***

This is a required two-course series. Students are expected to research a therapeutic or controversial medical topic which will be presented as an individual oral journal club presentation. Students will therefore be able to display their knowledge and communicate this knowledge to faculty members as well as to their peers. Through attendance at their peers' presentations, students have the opportunity to compose questions, and in the process, improve their knowledge base and critical thinking skills. Students will continue their work on their therapeutic or controversial medical topic by organizing a professional poster presentation that adequately answers the question by using articles previously analyzed in Pharm.D Seminar I as

well as other resources available. Students will be able to present their topic and defend their answer to their therapeutic question to faculty members and peers. They will then present these at a formal presentation expo to take place at the end of the semester.

RES 1002 PH3 B – Pharmacoeconomics and Outcomes Assessment – 2 Credit Hours

Students are introduced to the principles and tools of pharmacoeconomics and outcomes assessment that are commonly used to study the impact of pharmaceutical care services on the health and health care of a patient or community.

MPS 1001 PH3 B – Management and Patient Safety –3 Credit Hours

This course emphasizes the need for management in pharmacy practice in any venue. Students will learn about managing time, finances, operations, people, technology, and quality. Students will discuss the impact of patient safety on society and mechanisms that can be put in place to improve the health care system. Concepts such as human factors, accident causation, reliability of systems, and preventive strategies will be utilized to focus on quality improvement in medication management.

PHR 1005 PH4 B – APPE Advanced Community – 4 Credit Hours

Under the supervision of the pharmacy preceptor, the student will provide direct patient-centered care in a community pharmacy setting. Students will experience the operation and management of community pharmacy systems and the functions and responsibilities of a pharmacist in a community setting. Students will have the opportunity to be involved in all aspects of the medication use process and health care delivery in the community setting, including the need for continuity of care.

PHR 1017 PH4 B – APPE Advanced Institutional – 4 Credit Hours

Under the supervision of the pharmacy preceptor, the student will provide direct patient-centered care in the institutional, inpatient setting (including hospital long-term care, etc.). The student will experience the operation and management of institutional pharmacy systems and the functions and responsibilities of a pharmacist in the institutional setting. Students will have the opportunity to be involved in all aspects of the medication use process and health care delivery in the institutional setting, including the need for continuity of care.

PHR 1010 PH4 B – APPE Acute Care Medicine I – 4 Credit Hours;

PHR 1011 PH4 B – APPE Acute Care Medicine II – 4 Credit Hours

Under the supervision of the preceptor, students put into application the knowledge of pharmacology, pharmaceuticals, drug information, medication safety, communication skills, critical thinking, pathophysiology, and therapeutics to the care of patients (all ages) as well as share their knowledge with health care team members in an inpatient/acute care setting. The student will interact with all members of the health care team to provide patient-centered care and include a focus on continuity of care.

PHR 1012 PH4 B - APPE Ambulatory Care I – 4 Credit Hours;

PHR 1013 PH4 B - APPE Ambulatory Care II – 4 Credit Hours

These rotations are designed to offer the student the opportunity to experience firsthand the

functions and responsibilities of a pharmacist in the Ambulatory Care setting (patients being treated at home or at facilities but not admitted for inpatient services). Under the supervision of the preceptor, students will apply the knowledge of pharmacology, pharmaceuticals, drug information, counseling skills, critical thinking, pathophysiology, and therapeutics to the care of patients (all ages), as well as share their knowledge with health care team members. The student will interact with all members of the health care team to provide patient-centered care and include a focus on continuity of care.

PHR 1014 PH4 B - APPE Elective I – 4 Credit Hours;

PHR 1015 PH4 B - APPE Elective II – 4 Credit Hours;

PHR 1016 PH4 B - APPE Elective III – 4 Credit Hours

Each elective rotation offers different and specific learning experiences based on the site and the type of specialties. Examples of potential rotation settings include any of the required rotation sites, research, management, drug information, education, managed care, long-term care, hospice, home health care, nuclear, etc. Students will select elective rotations to individualize their training and experience in preparation for their careers as well as to complement the experiences gained in the required rotations.

2.2.8.3.2. Elective Courses for the Four-Year Pathway

PHE 1024 - Cultural Competence for Healthcare Professionals – 2 Credit Hours

Students will be exposed to both patients and healthcare providers of different races, cultures and lifestyles, and will discuss the healthcare beliefs and habits generally attributed to the different groups. In addition, end-of-life, chronic disease and mental illness issues will also be discussed. Students will be given the skills to develop a culturally competent practice. Multiple teaching methods will be used in this class, including lecture, active learning and case and book discussions.

PHE 1025 - Leadership in Pharmacy - 2 Credit Hours

Students will work together to explore opportunities for leadership within the pharmacy profession related to professional organizations, advocacy, advanced training, and other avenues. Students will examine their own interests and strengths in order to begin developing independent learning goals for application during formal education and into their professional lives. The course will consist of journal readings, guest speakers, lectures, and discussion forums, and assessment techniques such as quizzes, writing assignments, projects, and class participation.

PHE 1026 - Vitamins and Minerals - 2 Credit Hours

Vitamins and minerals constitute the major part of today's most popular dietary supplements; therefore, pharmacists play a significant role in patient counseling to ensure the safe, appropriate, effective, and economical use of these products. This course will cover: (1) biochemical and pathophysiological significance of different vitamins, minerals and trace elements; (2) potential benefits and therapeutic outcomes of using vitamins and minerals as dietary supplements; and (3) the risk for drug or disease interactions involving specific vitamins and minerals.

PHE 1027 - Death and Dying - 2 Credit Hours

This course will focus on death, dying and the grieving process from the perspective of the health care practitioner. Historical and contemporary theories and models of death, dying and the grief process will be briefly covered in addition to cultural and societal perspectives. Specific differences in the grieving process will be covered to include non-humans, children, the aged, spouses, early death, corporate death as well as death due to trauma, disease and suicide. The course content will be explored through the text, film, media, the arts, group discussion and guest speakers.

PHE 1044 - Research Independent Study - 2-3 Credit Hours

This Research Elective course provides pharmacy students with independent experiential opportunities in laboratory, clinic and/or literature research in the field of Pharmaceutical Sciences and Pharmacy Practice. This course is planned, individualized and coordinated by the Faculty/Mentor for the specific research activity performed by the student. It utilizes the expertise of the faculty in their respective fields of specialization and/or interests and affords the student the opportunity to learn about contemporary and interdisciplinary areas in the Pharmaceutical Sciences and Pharmacy Practice.

PHE 1007 – Advanced Pharmaceutical Compounding - 2 Credit Hours

The course is designed to increase student's proficiency in pharmaceutical calculations and compounding and to develop an appreciation for compounding methodologies development. Compounding is a process of mixing of therapeutics agent(s) by a pharmacist to fit the unique needs of patients. This may be due to reasons such as a particular therapeutic agent being unavailable in a particular dosage form, discontinuance of a product by the manufacturer, or a combination of therapeutics agents not available commercially. Compounding pharmacists play an important role in the health care profession by providing customized medications ordered by the prescriber for patients.

PHE 1038 – Clinical Toxicology – 2 Credit Hours

This course will provide an analysis of general principles of clinical toxicology. Emphasis will be laid on physiological, biochemical and molecular mechanisms underlying the adverse effects of frequently encountered toxicants, toxidromes and the approach to affected patients. It will also lay the foundation for study of toxicology and poison prevention in clinical settings as well as providing reviews of career options in areas focusing on clinical toxicology.

PHE 1034 – Drug Discovery and Development – 2 Credits

This elective course for pharmacy students will review the process of new drug discovery and development and expose students to the available career opportunities in various departments of the pharmaceutical industry. This course will review, in a general manner, various stages, with emphasis on the research aspects that a chemical entity undergoes prior to becoming a therapeutic agent and available to physicians for safe and effective use.

This course will introduce the students to the different aspects of research and development that are involved in the discovery and preclinical development of therapeutic agents. Furthermore, the course will briefly describe the process of target selection, emerging techniques in drug

discovery, strategies for drug design involving tools for synthesis and characterization, and developing and optimizing appropriate formulations to obtain the desired biological effects for therapeutic application. The course will consist of a series of lectures and discussions covering the main aspects of drug design and development. A field trip towards the end of the semester may also be planned.

PHE 1036 – Drugs of Abuse – 2 Credit Hours

This course will be designed to help the student develop the knowledge and understanding of drugs and substances of abuse. We will begin the course with a focus on the neurobiology of drug abuse and whether drug abusers are affected differently by abusive drugs. The course will provide the student with the knowledge of the different types of drugs of abuse (psycho depressants, psycho stimulants, psychedelics, etc.). The student will gather knowledge on aspects of drug abuse, such as, personal dimension, societal dimension and time dimension. The class will understand some theories for use and history of abuse for certain drugs. Also the pharmacology, mechanism of actions and side effect profiles will be studied. At the completion of the course, the student will have a full understanding and knowledge of what drugs have an abuse potential. Students will be expected to participate in online threaded discussion. In order to carry on distance education, a student is required to be interactive. This will be accomplished by students posing their questions or concerns about topics presented. The instructor will review the postings and respond with appropriate responses. There will be specific questions posted in the discussion forum from the material presented in the power point presentations. Also, questions will be asked which will require a response in essay form.

PHE 1046 – Health Disparities – 2 Credit Hours

Student will be exposed to health disparities existing among the medically underserved in a variety of pharmacy settings and specialties. Pharmacy settings and/or specialties may include, but are not limited to, community, hospital, ambulatory care, mental health, diabetes, and HIV/AIDS. Although the focus of the course will be health disparities within the United States, other countries' health care systems will be compared and discussed. Health literacy as a barrier to pharmacist-patient communication will be stressed throughout the course. Students will develop the skills necessary to build pharmacy services and interventions targeting underserved priority populations. Multiple teaching methods will be used in this class including lecture, active learning, case and book discussions, reflections and project development.

PHE 1067 – Foundations in Personal Finance – 2 Credit Hours

The goal of this course is to provide students with a foundation for how to think about personal finance. This course provides a practical approach to managing one's personal finances that includes financial record keeping, personal federal income tax, major consumer purchases, financing, investment fundamentals and other financial topics of interest. Students will take a look at the millionaire culture in America to begin to understand what it means to be rich and how it is possible perceptions created by pop culture do not truly match up with how wealthy families live.

PHE 1076 -- Wellness and Nutrition – 2 Credit Hours

This course is designed for individuals to explore what wellness means in regards to mind, body, and spirit. During this course we will challenge ourselves to adopt a specific diet theory for the

duration of the semester and analyze principles of holistic wellness seen through a patient's eyes, while developing tools to help our patients be successful. We will measure and track our successes and failures and learn from each other.

PHE 1075 -- Spanish for Pharmacists – 2 Credit Hours

This course will introduce pharmacy students to the Spanish language in order to communicate and interpret basic medication information and pharmacy-related terminology to the Spanish-speaking patient.

2.2.8.4. The Four-Year Distance Education Pathway

The following is the curriculum for the school's Distance Education four-year pathway leading to the Pharm.D. degree:

Pharmacy Year 1 – Fall

Course Title	Credits	Course Number
Biochemistry I	2	BCH 1003 PH1 DE
Pharmacy, Drugs, and Health Care	4	PCC 1023 PH1 DE
Pharmacy Calculations	1	PCC 1001 PH1 DE
Pharmaceutics I w/Lab	4	PCC 1018 PH1 DE
Physiology and Anatomy	4	PHY 1014 PH1 DE
<i>Semester Credits Total</i>	<i>15</i>	

Pharmacy Year 1 – Spring

Course Title	Credits	Course Number
Biochemistry II	2	BCH 1004 PH1 DE
Drug Information	2	DGI 1003 PH1 DE
Microbiology and Immunology	4	MCB 1001 PH1 DE
Pharmaceutics II w/Lab	4	PCC 1019 PH1 DE
Pharmacy Law	2	LAW 1003 PH1 DE
Pharmacist Provided Care I	2	PCC 1012 PH1 DE
Effective Communications	1	COM 1003 PH1 DE
<i>Semester Credits Total</i>	<i>17</i>	

TOTAL CREDITS PHARMACY YEAR 1 = 32

Pharmacy Year 2 – Fall

Course Title	Credits	Course Number
Basic Pharmacokinetics	3	PCK 1002 PH2 DE
Research Methods and Pharmacoepidemiology	2	RES 1001 PH2 DE
Pharmacist Provided Care II	1	PCC 1022 PH2 DE
PS2 Pharmacy Elective I	2	PHE 1002 PH2 DE
IPPE Community	4	PHR 1001 PH2 DE
IPPE Institutional	4	PHR 1002 PH2 DE
<i>Semester Credits Total</i>	<i>16</i>	

Pharmacy Year 2 – Spring

Course Title	Credits	Course Number
Clinical Skills	2	CLP 1001 PH2 DE
Clinical Pharmacokinetics	3	PCK 1001 PH2 DE
Pharmacology/Medicinal Chemistry I	3	PHC 1006 PH2 DE
Pharmacotherapeutics I	4	PHT 1002 PH2 DE
PS2 Pharmacy Elective II	2	PHE 1003 PH2 DE
<i>Semester Credits Total</i>	<i>14</i>	

TOTAL CREDITS PHARMACY YEAR 2 = 30

Pharmacy Year 3 – Fall

Course Title	Credits	Course Number
Pharmacology/Medicinal Chemistry II	4	PHC 1007 PH3 DE
Drug Literature Evaluation	2	DGI 1004 PH3 DE
Pharmacotherapeutics II	5	PHT 1003 PH3 DE
Pharmacogenomics	2	PHG 1001 PH3 DE
Pharm.D. Seminar I	1	PHE 1022 PH3 DE
Management and Patient Safety	3	PUB 1003 PH3 DE
<i>Semester Credits Total</i>	<i>17</i>	

Pharmacy Year 3 – Spring

Course Title	Credits	Course Number
Pharmacology/Medicinal Chemistry III	4	PHC 1008 PH3 DE
Pharmacotherapeutics III	6	PHT 1004 PH3 DE

Pharm.D. Seminar II	1	PHE 1023 PH3 DE
Pharmacoeconomics and Outcomes Assessment	2	RES1002 PH3 DE
PS3 Pharmacy Elective III	2	PUB 1003 PH3 DE
<i>Semester Credits Total</i>	<i>15</i>	

TOTAL CREDITS PHARMACY YEAR 3 = 32

Pharmacy Year 4

Course Title	Credits	Course Number
APPE Advanced Community	6	PHR 1005 PH4 DE
APPE Advance Institutional	6	PHR 1017 PH4 DE
APPE Inpatient/Acute Care Medicine	6	PHR 1018 PH4 DE
APPE Ambulatory Care	6	PHR 1007 PH4 DE
APPE Elective I	6	PHR 1014 PH4 DE
APPE Elective II	6	PHR 1015 PH4 DE

TOTAL CREDITS PHARMACY YEAR 4 = 36

2.2.8.4.1. Course Descriptions for the Four-Year Distance Education Pathway

PCC 1023 PH1 DE – Pharmacy, Drugs, and Healthcare – 4 Credit Hours

This course will introduce students to the profession and how it fits within the U.S. health care delivery system. It will provide an overview of the basic structures and operations of the US health care delivery system including its historical origins, and the technical, economic, political, and social forces that impact it. Students will learn how the profession of pharmacy evolved in the health care delivery system and will understand the history of the profession, pharmaceutical care concepts including ethics, and areas of practice for pharmacists. Students will begin learning information about the most commonly prescribed medications.

BCH 1003 and BCH 1006 PH1 DE – Biochemistry I – II – 4 Credit Hours

These courses provide the molecular basis for important physiological processes and disease states and the biological molecules that are the targets of drugs. This course will focus on two broad areas: (1) modern concepts of protein structure and function; and (2) traditional intermediary metabolism, emphasizing relationships to disease states such as diabetes and hyperlipidemia. This course, and the companion microbiology course in the spring semester, will provide the pharmacy student the basic scientific insight into how drug targets are chosen and developed, and the mechanism by which they alleviate a disease.

PCC 1018 PH1 DE – Pharmaceutics I w/Lab – 4 Credit Hours

This is the first of a two-course sequence optimally designed for first year pharmacy students to teach them basic concepts and topics about the basic chemistry, physical-chemical properties of therapeutics agents and their importance in drug delivery systems. It also covers absorption, acid/base theory and their role in drug absorption and the characterization of powders properties and their utility in the development of safe and effective pharmaceutical dosage forms. Furthermore, this course will integrate important concepts from the physical pharmacy to illustrate design and development of conventional drug delivery systems as well as novel drug delivery systems used currently in pharmacy practice. This course will then integrate physical chemical principles in the design, development, and manufacture of stable, safe and effective dosage forms and finished drug products. Specific topics/concepts will focus on the physical, chemical and biological principles essential for understanding basic pharmaceuticals, pharmaceutical dosage forms, principles of biopharmaceutics and pharmacokinetics. The specific topics/concepts will include physical principles of drug degradation, stability and orders of drug degradation and dosage forms like pharmaceutical solutions and disperse systems.

MCB 1001 PH1 DE – Microbiology and Immunology – 4 Credit Hours

This course is designed as an introductory course in Microbiology with an emphasis on the basic structure-function (virulence) aspects of microorganisms and targets for antimicrobial action of anti-infectives. The following are the two general objectives of the course: (1) provide a foundation on which the students can build subsequent knowledge on therapeutics and expertise; and (2) convey fundamental concepts that will enable the students to make sound future judgments and consultations.

PCC 1001 PH1 DE – Pharmaceutical Calculations – 1 Credit Hour

This course will cover various aspects of pharmaceutical calculations to provide the student with an understanding of what the practice of pharmacy will require of them as practitioners when presented with patient prescriptions or medication orders. The course focuses on the calculations a pharmacist is likely to perform in a contemporary pharmacy. It is designed for the first year pharmacy students to teach basic concepts and principles involved in calculations that are necessary in the compounding as well as intravenous preparations. Specific topics will focus on the calculation of isotonic, milliequivalence, milliosmolar solutions, ratio and proportions, enlarging and reductions in the formula, various percentage calculations, aliquot and allegation methods, dilutions and use of the specific gravity to convert amount into volume and vice-versa.

PHY 1014 PH1 DE – Physiology and Anatomy – 4 Credit Hours

This course will relate anatomical structure of cells, tissues and organ systems to physiological functions. Attention also will focus on etiology, homeostasis, and clinical consequences of abnormal physiological function. The course is tailored to the needs of the pharmacy student and includes special emphasis to the molecular basis of physiological function as the target of pharmacotherapeutic intervention.

PCC 1012 PH1 DE – Pharmacist Provided Care I; PCC 1022 PH2 DE – Pharmacist Provided Care II – 3 Credit Hours

These courses are designed to provide students with appropriate information and experiences to acquire the necessary skills to become an effective health care practitioner. The courses will engage the students in active learning to enhance their self-care medication knowledge. They also will develop the students' ability to document patient encounters by writing appropriate patient care plans. These courses will heighten the team concept as well as develop professionalism and communication skills.

PCC 1019 PH1 DE – Pharmaceutics II w/Lab – 4 Credit Hours

This second course in this series provides students with a qualitative and quantitative overview of drug disposition and the processes important to disposition, namely, absorption, distribution, metabolism and excretion. Sterile dosage forms will also be introduced teaching the organization and administration of an admixture program and admixture techniques. The proper utilization of parenteral products, as well as parenteral drug compatibility literature is also considered. Several laboratory sessions will be devoted to sterile dosage forms.

LAW 1003 PH1 DE – Pharmacy Law – 2 Credit Hours

This course will examine the U.S. legal system, basic jurisprudence, federal and state laws, regulations and related ethical issues regarding the development and approval of drugs, the practice of pharmacy and the regulation and control of drugs, cosmetics, and medical devices. Tort and contract law will also be explained.

DG1 1003 PH1 DE – Drug Information – 2 Credit Hours

This course will introduce the concepts of the systematic approach to drug information questions and the information retrieval process needed to answer them. Primary, secondary and tertiary literature will also be introduced. In addition, adverse drug reaction and medication error reporting, clinical practice guidelines, the role of the Pharmacy & Therapeutics committee and drug policy/medication use evaluation will be discussed. Fundamentals of medical writing and documentation and the ethics of providing drug information will be presented. Students will begin to determine the quality of drug information sources, including the internet used by both patients and health care professionals. This course will use active learning strategies to help the students learn important drug information skills.

COM 1003 PH1 DE – Effective Communications – 1 Credit Hour

This course is designed to provide students with an opportunity to learn, observe, apply and receive feedback on effective communication skills and techniques. It will build on the medication counseling information students learn in Introduction to Pharmacy. Students will be instructed on important principles required to develop positive relationships and promote positive therapeutic outcomes: engage, empathize, educate and enlist.

PHR 1001 PH2 DE – Introductory Pharmacy Practice Experience – Community – 4 Credit Hours

The goal of this rotation is to have the student gain experience in the competencies necessary in the daily practice of community pharmacy operations through active learning and participation.

The emphasis is on the operations, distribution system, professional conduct and direct patient-care in the community environment. The following three (3) steps of the medication-use system will be emphasized: selecting, procuring and storing; ordering and transcribing; and dispensing and preparation.

PHR 1002 PH2 DE – Introductory Pharmacy Practice Experience – Institutional – 4 Credit Hours

The goal of this rotation is to have the student gain experience in the competencies necessary in the daily practice of institutional (hospital, long-term care, etc.) pharmacy operations through active learning and participation. The emphasis is on the operations, distribution system, professional conduct and direct patient-care in the hospital environment. The following three (3) steps of the medication-use system will be emphasized: selecting, procuring and storing; ordering and transcribing; and dispensing and preparation.

PCK 1002 PH2 DE Basic Pharmacokinetics – 3 Credit Hours

This course will cover the theoretical and practical topics of bio-pharmaceutics and pharmacokinetics as a necessary foundation for competency in the future clinical pharmacokinetics course. The course will provide the student with an understanding of conceptual and mathematical treatment of ADME processes (Absorption, Distribution, Metabolism and Excretion) in a classroom and, perhaps, in a small group learning environment.

PHC 1006 PH2 DE, PHC 1007 PH3 DE, PHC 1008 PH3 DE – Pharmacology/Medicinal Chemistry I - III – 11 Credit Hours

These three courses will introduce students to the coordinated study of the molecular, cellular and physiologic bases of drug action, the influence of chemical and physical properties in structural activity relationships and drug design as it relates to drug metabolism and drug action. The course will begin with general principles, and the remainder will familiarize students with various classes of drugs that act at various organ systems. Chemistry and quantitative structural activity relationships, mechanisms of action, toxicity profiles, and pharmacokinetics associated with these drugs will be emphasized.

RES 1001 PH2 DE – Research Methods and Pharmacoepidemiology – 2 Credit Hours

Students will be familiarized with statistical designs and their applications in different types of studies. The students will also learn the principles of pharmacoepidemiology and its applications to the practice of Pharmacy and Clinical Sciences. The course will include a group project to develop a research protocol and informed consent to be submitted as a paper and presented to a mock Institutional Review Board.

PCK 1001 PH2 DE – Clinical Pharmacokinetics – 3 Credit Hours

The course will apply the basic concepts of biopharmaceutics to the clinical management of various patients' conditions. The goal is to optimize therapy, achieve maximum efficacy while preserving safety for the patients.

CLP 1001 PH2 DE – Clinical Laboratory and Physical Assessment – 2 Credit Hours

The students will learn the basics in physical assessment and monitoring the effects of drugs in patients. The clinical laboratory component will cover the normal and abnormal laboratory values from different organ systems. This course will prepare the students for upcoming courses in pathophysiology and therapeutics.

***PHT 1001 PH2 DE, PHT 1007 PH3 DE, PHT 1008 PH3 DE –
Pharmacotherapeutics I – III – 15 Credit Hours***

These three courses will cover pathophysiology and therapeutics of each organ system. Course work will cover the following therapeutic topics: dermatology, respiratory and cardiovascular ailments, degenerating diseases, genital-urologic diseases, endocrinology/gastrointestinal diseases, critical care, infectious diseases, neurology, psychiatry, oncology, and women's health. The courses of Pharmacotherapeutics will be taught in a sequential and integrative manner to tie in the knowledge and concepts from medicinal chemistry coupled with the pharmacology of the drugs involved in the corresponding organ system and to the pathophysiology and therapeutic principles in clinical practice. This will enable the students to relate the knowledge from both basic sciences and clinical sciences.

PHG 1001 PH3 DE – Pharmacogenomics – 2 Credit Hours

This course provides students with an understanding of the ways that inherited variations in genes affect response to drugs, and how an understanding of these variations can be used to predict response. The course will provide an overview of the principles of genetic medicine and bioinformatics, and consider ethical, legal and social issues in genomics. The impact of genetics on drug metabolism and drug transporters will be discussed as well as the role of pharmacogenomics in drug discovery and development. The role that pharmacogenomics plays in treatment of specific diseases will complete the course.

DG1 1004 PH3 DE – Drug Literature Evaluation – 2 Credit Hours

Students will read and critically evaluate current topics in the medical and scientific literature using the evidence based approach to clinical decision-making. Students will learn strategies to delineate relevant questions, critically appraise evidence and its applicability to the clinical question and formulate conclusions and/or recommendations based on scientific data. An emphasis will be placed on using landmark clinical trials as examples of the utility of evidence based medicine as it applied to clinical practice.

***PHE 1022 PH3 DE, PHE 1023 PH3 DE –
Pharm.D. Seminar I – II – 2 Credit Hours***

This is a required two-course series. Students are expected to research a therapeutic or controversial medical topic which will be presented as an individual oral journal club presentation. Students will therefore be able to display their knowledge and communicate this knowledge to faculty members as well as to their peers. Through attendance at their peers' presentations, students have the opportunity to compose questions, and in the process, improve their knowledge base and critical thinking skills. Students will continue their work on their therapeutic or controversial medical topic by organizing a professional poster presentation that

adequately answers the question by using articles previously analyzed in Pharm.D Seminar I as well as other resources available. Students will be able to present their topic and defend their answer to their therapeutic question to faculty members and peers. They will then present these at a formal presentation expo to take place at the end of the semester.

RES 1002 PH3 DE – Pharmacoeconomics and Outcomes Assessment – 2 Credit Hours

Students are introduced to the principles and tools of pharmacoeconomics and outcomes assessment that are commonly used to study the impact of pharmaceutical care services on the health and health care of a patient or community.

MPS 1001 PH3 DE – Management and Patient Safety – 3 Credit Hours

This course emphasizes the need for management in pharmacy practice in any venue. Students will learn about managing time, finances, operations, people, technology, and quality. Students will discuss the impact of patient safety on society and mechanisms that can be put in place to improve the health care system. Concepts such as human factors, accident causation, reliability of systems, and preventive strategies will be utilized to focus on quality improvement in medication management.

PHR 1005 PH3 DE - APPE Advanced Community – 6 Credit Hours

Under the supervision of the pharmacy preceptor, the student will provide direct patient-centered care in a community pharmacy setting. Students will experience the operation and management of community pharmacy systems and the functions and responsibilities of a pharmacist in a community setting. Students will have the opportunity to be involved in all aspects of the medication use process and health care delivery in the community setting, including the need for continuity of care.

PHR 1017 PH3 DE - APPE Advanced Institutional – 6 Credit Hours

Under the supervision of the pharmacy preceptor, the student will provide direct patient-centered care in the institutional, inpatient setting (including hospital long-term care, etc.). The student will experience the operation and management of institutional pharmacy systems and the functions and responsibilities of a pharmacist in the institutional setting. Students will have the opportunity to be involved in all aspects of the medication use process and health care delivery in the institutional setting, including the need for continuity of care.

PHR 1018 PH3 DE – APPE Inpatient/Acute Care Medicine – 6 Credit Hours

Under the supervision of the preceptor, students put into application the knowledge of pharmacology, pharmaceuticals, drug information, medication safety, communication skills, critical thinking, pathophysiology, and therapeutics to the care of patients (all ages) as well as share their knowledge with health care team members in an inpatient/acute care setting. The student will interact with all members of the health care team to provide patient-centered care and include a focus on continuity of care.

PHR 1007 PH3 DE – APPPE Ambulatory Care – 6 Credit Hours

This rotation is designed to offer the student the opportunity to experience firsthand the functions

and responsibilities of a pharmacist in the Ambulatory Care setting (patients being treated at home or at facilities but not admitted for inpatient services). Under the supervision of the preceptor, students will apply the knowledge of pharmacology, pharmaceuticals, drug information, counseling skills, critical thinking, pathophysiology, and therapeutics to the care of patients (all ages), as well as share their knowledge with health care team members. The student will interact with all members of the health care team to provide patient-centered care and include a focus on continuity of care.

PHR 1014 PH3 DE – APPE Elective I – 6 Credit Hours

PHR 1015 PH3 DE – APPE Elective II – 6 Credit Hours

Each elective rotation offers different and specific learning experiences based on the site and the type of specialties. Examples of potential rotation settings include any of the required rotation sites, research, management, drug information, education, managed care, long-term care, hospice, home health care, nuclear, etc. Students will select elective rotations to individualize their training and experience in preparation for their careers as well as to complement the experiences gained in the required rotations.

2.2.8.4.2. Elective Courses for the Four Year Distance Education Pathway

PHE 1024 - Cultural Competence for Healthcare Professionals – 2 Credit Hours

Students will be exposed to both patients and healthcare providers of different races, cultures and lifestyles, and will discuss the healthcare beliefs and habits generally attributed to the different groups. In addition, end-of-life, chronic disease and mental illness issues will also be discussed. Students will be given the skills to develop a culturally competent practice. Multiple teaching methods will be used in this class, including lecture, active learning and case and book discussions.

PHE 1025 - Leadership in Pharmacy - 2 Credit Hours

Students will work together to explore opportunities for leadership within the pharmacy profession related to professional organizations, advocacy, advanced training, and other avenues. Students will examine their own interests and strengths in order to begin developing independent learning goals for application during formal education and into their professional lives. The course will consist of journal readings, guest speakers, lectures, and discussion forums, and assessment techniques such as quizzes, writing assignments, projects, and class participation.

PHE 1026 - Vitamins and Minerals - 2 Credit Hours

Vitamins and minerals constitute the major part of today's most popular dietary supplements; therefore, pharmacists play a significant role in patient counseling to ensure the safe, appropriate, effective, and economical use of these products. This course will cover: (1) biochemical and pathophysiological significance of different vitamins, minerals and trace elements; (2) potential benefits and therapeutic outcomes of using vitamins and minerals as dietary supplements; and (3) the risk for drug or disease interactions involving specific vitamins and minerals.

PHE 1027 - Death and Dying - 2 Credit Hours

This course will focus on death, dying and the grieving process from the perspective of the health care practitioner. Historical and contemporary theories and models of death, dying and the grief process will be briefly covered in addition to cultural and societal perspectives. Specific differences in the grieving process will be covered to include non-humans, children, the aged, spouses, early death, corporate death as well as death due to trauma, disease and suicide. The course content will be explored through the text, film, media, the arts, group discussion and guest speakers.

PHE 1044 - Research Independent Study - 2-3 Credit Hours

This Research Elective course provides pharmacy students with independent experiential opportunities in laboratory, clinic and/or literature research in the field of Pharmaceutical Sciences and Pharmacy Practice. This course is planned, individualized and coordinated by the Faculty/Mentor for the specific research activity performed by the student. It utilizes the expertise of the faculty in their respective fields of specialization and/or interests and affords the student the opportunity to learn about contemporary and interdisciplinary areas in the Pharmaceutical Sciences and Pharmacy Practice.

PHE 1038 – Clinical Toxicology – 2 Credit Hours

This course will provide an analysis of general principles of clinical toxicology. Emphasis will be laid on physiological, biochemical and molecular mechanisms underlying the adverse effects of frequently encountered toxicants, toxidromes and the approach to affected patients. It will also lay the foundation for study of toxicology and poison prevention in clinical settings as well as providing reviews of career options in areas focusing on clinical toxicology.

PHE 1034 – Drug Discovery and Development – 2 Credits

This elective course for pharmacy students will review the process of new drug discovery and development and expose students to the available career opportunities in various departments of the pharmaceutical industry. This course will review, in a general manner, various stages, with emphasis on the research aspects that a chemical entity undergoes prior to becoming a therapeutic agent and available to physicians for safe and effective use.

This course will introduce the students to the different aspects of research and development that are involved in the discovery and preclinical development of therapeutic agents. Furthermore, the course will briefly describe the process of target selection, emerging techniques in drug discovery, strategies for drug design involving tools for synthesis and characterization, and developing and optimizing appropriate formulations to obtain the desired biological effects for therapeutic application. The course will consist of a series of lectures and discussions covering the main aspects of drug design and development. A field trip towards the end of the semester may also be planned.

PHE 1036 – Drugs of Abuse – 2 Credit Hours

This course will be designed to help the student develop the knowledge and understanding of drugs and substances of abuse. We will begin the course with a focus on the neurobiology of

drug abuse and whether drug abusers are affected differently by abusive drugs. The course will provide the student with the knowledge of the different types of drugs of abuse (psycho depressants, psycho stimulants, psychedelics, etc.). The student will gather knowledge on aspects of drug abuse, such as, personal dimension, societal dimension and time dimension. The class will understand some theories for use and history of abuse for certain drugs. Also the pharmacology, mechanism of actions and side effect profiles will be studied. At the completion of the course, the student will have a full understanding and knowledge of what drugs have an abuse potential. Students will be expected to participate in online threaded discussion. In order to carry on distance education, a student is required to be interactive. This will be accomplished by students posing their questions or concerns about topics presented. The instructor will review the postings and respond with appropriate responses. There will be specific questions posted in the discussion forum from the material presented in the power point presentations. Also, questions will be asked which will require a response in essay form.

PHE 1067 – Foundations in Personal Finance – 2 Credit Hours

The goal of this course is to provide students with a foundation for how to think about personal finance. This course provides a practical approach to managing one's personal finances that includes financial record keeping, personal federal income tax, major consumer purchases, financing, investment fundamentals and other financial topics of interest. Students will take a look at the millionaire culture in America to begin to understand what it means to be rich and how it is possible perceptions created by pop culture do not truly match up with how wealthy families live.

PHE 1076 -- Wellness and Nutrition – 2 Credit Hours

This course is designed for individuals to explore what wellness means in regards to mind, body, and spirit. During this course we will challenge ourselves to adopt a specific diet theory for the duration of the semester and analyze principles of holistic wellness seen through a patient's eyes, while developing tools to help our patients be successful. We will measure and track our successes and failures and learn from each other.

PHE 1075 -- Spanish for Pharmacists – 2 Credit Hours

This course will introduce pharmacy students to the Spanish language in order to communicate and interpret basic medication information and pharmacy-related terminology to the Spanish-speaking patient.

2.2.9. School of Pharmacy Academic Standing and Professionalism (ASP) Committee

The Academic Standing and Professionalism (ASP) Committee is responsible for reviewing the academic achievement and advancement of students for the degree of Pharm.D. Its functions parallel those of the SPG Committee. The composition and functions of the committee are as follows:

- The ASP Committee is comprised of the Director of Student Promotion and Retention, Associate Dean/Campus Director and elected full-time Pharmaceutical Science and Pharmacy Practice faculty members. The students enrolled in the Distance Education Pathway will be considered by the ASP committee of the Bradenton campus. Meetings may be conducted live, by video conference, or by phone conference. Recording of meetings is not permitted
- Each semester, the ASP Committee shall periodically review the academic achievements and performance of all students. The names and grades of students in academic difficulty shall be made available to the ASP Committee by Course Coordinators with additional input from the Associate Dean/Campus Director.
- The ASP has the authority to call any student before it who has shown academic or behavioral problems. Students are submitted to the Committee for consideration from:
 - Any of the academic deans;
 - Director of Student Affairs; or
 - Faculty members.
- Students may be referred to the Committee for:
 - Honor code violations including any allegations of cheating or academic dishonesty;
 - Non-honor code violations including issues of professionalism, failure to meet financial obligations to the School or behavioral issues either on campus or during clinical rotations; or
 - Failure to progress academically or academic failure.
- Student names are submitted to the Chairman of the ASP and placed on the agenda for the next regularly scheduled meeting. If the matter is urgent, a special meeting of the Committee is called. Prior to the meeting, the Committee is provided with any written records, academic records, advisor input, attendance records, etc. prior to meeting with the student.
- Students meet with the Committee and are informed of the reason for their appearance. They are given an opportunity to address the Committee and allowed to submit any supporting documentation. The Committee members are given an opportunity to question the student.
- After students have left the meeting and the Committee has considered the written records in front of it, the members confer and then vote on recommendations to be submitted to the Dean.
- The Chairman of the Committee prepares and submits the Committee's recommendations to the appropriate dean, who may accept, reject or modify the recommendations.

This procedure is distinct from that for appeal hearings set forth in Section 4.2.4.

2.2.10. Final Grade Appeals

Cause for Final Grade Appeals

In order to appeal a final grade, a student must offer convincing arguments that good cause exists for mandating a change of grade. A request for a grade appeal is not automatically granted.

A. Each of the following reasons, if supported by sufficient evidence, shall constitute “good cause”:

- Assignment of a grade that is malicious and/or discriminatory: i.e., in determining the grade, the Course Director or Coordinator, Program Director, Clinical Preceptor or Systems Co-coordinator (“professor”) clearly did not apply the same standards he/she used for grading other members of the class whose work and behavior were similar to those of the appealing student.
- Assignment of a grade that is arbitrary and/or capricious: i.e., the professor had apparently no discernible rationale for arriving at the grade given.
- Assignment of a grade that has resulted from human error: i.e., the professor reported an incorrect grade as the consequence of a mistake in computation, in recording or in some other mechanical aspect of the grading process. In such instances, it is assumed that the error will be corrected as a result of Step 1 of the Appeals Procedure (Faculty-Student Conference).

B. The following reasons do not constitute “good cause” for the purposes of appealing a grade:

- Disagreement with the course or systems requirements established by the professor, course coordinator or director of Experiential Education.
- Disagreement with the grading standards established by the professor, course coordinator or director of Experiential Education.
- Disagreement with the judgment of the Professor, course coordinator or director of Experiential Education, in applying his/her grading standards so long as he/she has made a reasonable effort in good faith to be fair and consistent in exercising that judgment. Good faith on the professor’s part shall be presumed unless the student can offer convincing arguments to the contrary.
- The student’s desire or “need” for a particular grade, while compelling to the individual on a personal level, shall not be considered “good cause” for purposes of appeal.
- Students repeating any academic year are ineligible for grade appeals.
- Scoring less than 70% on a remediation

Step 1: Faculty/Student Conference

A student wishing to appeal a final grade shall follow the procedure listed below—Once the initial appeal is submitted in writing to the Associate Dean of Faculty, the student cannot change the appeal letter throughout the appeal process.

Didactic Courses:

- A conference between the student and the course director shall take place as soon as possible after learning of their grade, but no later than ten (10) business days after official notification of the grade from the registrar’s office.
- If either the student or faculty member wants the conference to take place in the presence of a third party, a request will be submitted to the Associate Dean of Faculty for another member of the School to sit in on the conference.
- The student shall explain the reasons for appealing the grade (see Cause for Final Grade Appeals), and the faculty member shall explain the reasons for assigning the grade.

- If the faculty member believes the grade should not be changed, the student shall be notified in writing or electronically (with a copy to the Associate Dean of faculty) within five (5) business days after the conference has occurred.
- If the student is not satisfied with the decision of the course coordinator, the student will then have five (5) business days from receiving the decision of the course coordinator to submit a written appeal to the Associate Dean of faculty.
- The Associate Dean of faculty will consider all the facts presented by the student and faculty member and make a decision regarding any grade change based on the criteria listed in Cause for Final Grade Appeals.
- The student will be notified in writing within a reasonable time period of the Associate Dean's decision.

Experiential Rotations:

- A conference between the student and the Director of Experiential Education shall take place as soon as possible after the student learning of their grade (especially if it is a failing grade right before graduation) but no later than ten (10) business days after official notification of the grade from the registrar's office.
- If the Director of Experiential Education believes the grade should not be changed, the student shall be notified in writing or electronically (with a copy to the Associate Dean of faculty) within five (5) class days after the conference has occurred.
- If the student is not satisfied with the decision of the Director of Experiential Education, the student will then have five (5) business days to submit a written appeal to the Associate Dean of Faculty.
- The Associate Dean of Faculty will consider all the facts presented by the students, preceptor, and Director of Experiential Education and will make a decision regarding any changes based on the facts presented.
- The student shall be notified of the Associate Dean's decision within a reasonable time, usually fifteen (15) class days after the receipt of the appeal.

Step 2: Appeal to the Academic Standing and Professionalism (ASP) Committee

If the student is not satisfied with the decision of the Associate Dean, he/she may resubmit the same appeal to the ASP Committee.

- This appeal must be in writing or electronic, addressed to the Chairperson of the ASP Committee, and shall contain the student's reasons for appealing the grade and additional reasons for disagreeing with the Associate Dean of Faculty. (See section: Cause for Final Grade Appeal).
- The appeal should be made within 10 (ten) working days after the student receives the written or electronic notification from the Associate.
- After considering all the facts, the ASP Committee will determine if the grade should be changed.

Step 3: Appeal to the Dean

- If the student is not satisfied with the finding of the ASP Committee, he or she may submit the appeal to the dean within three (3) calendar days after the decision has been made. In order for the appeal to be considered, all the necessary documentation, including written arguments, must be filed with the dean within seven (7) business day after notice of appeal is given.
- The dean shall notify the registrar within a reasonable amount of time in writing of the final decision.
- Students may then submit the appeal to the President in writing only within seven (7) business days

after the decision has been rendered by the Dean. All decisions by the President concerning the appeal are final.

2.2.11. Satisfactory Academic Progress Policy

A student is considered to be making satisfactory academic progress if the grade received for each course, system, module, or rotation is 70% (C) or greater. Any grade below a 70% (C) must be successfully remediated as described in Section 2.2.14 prior to the student advancing to the next academic year. Any incompletes must also be resolved and removed from the record prior to progression to the next year, except in courses in the Masters Programs. Exceptions to this policy will be made on an individual basis. This policy applies to all students regardless of whether or not they receive Title IV funding (Federal Direct Loans).

Evaluation by the Academic Standing and Professionalism (ASP) Committee occurs no later than the end of each semester or payment period. A student who has failed any course, system, module, or rotation will be assessed pursuant to the rules in Section 2.2.14 , Remediation.

If a student is permitted to remediate and continue on to the next semester or payment period, a financial aid warning will be issued to the student. While on financial aid warning status the student may continue to receive Title IV funding (Federal Direct Loans) for one additional semester or payment period. If the student fails to achieve satisfactory academic progress while on financial aid warning status, the student will not be eligible for additional financial aid until all requirements for satisfactory academic progress have been achieved. The financial aid warning will be issued to the student at the time ASP Committee determines the satisfactory academic progress status of the student or prior to the start of the next semester or payment period.

Financial aid warning is defined as: a status assigned to a student who fails to make satisfactory academic progress at the end of the semester or payment period and the ASP Committee allows the student to continue to the next semester and receive financial aid.

The coursework for students at LECOM is offered in sequence. A student who is unsuccessful with remediation at the end of an academic year will be evaluated by the ASP Committee according to the established procedure and will be required to either repeat the entire year or be dismissed. LECOM policy requires a pace of 100% (completed course credits/attempted course credits) per academic year. Students who are repeating a year are not eligible for federal financial aid during the year in which they are repeating already taken course work.

Students enrolled in the four-year SOP program must complete the requirements within six years of matriculation. Students in the three-year SOP program must complete the requirements for graduation within five years of initial matriculation. If a student is unable to meet the maximum timeframe allotted for his/her program, he/she would be dismissed. A student must progress through the curriculum at a pace that enables him/her to graduate in the maximum time allotted, including the Bradenton traditional and Distance Education pathways.

The ASP Committee, charged with monitoring satisfactory academic progress, makes its recommendations to the Dean of the School of Pharmacy.

If a student fails to achieve satisfactory academic progress while on “Financial Aid Warning” status, he/she **will not** be eligible for financial aid until all requirements for satisfactory academic progress have been achieved. A student may reestablish eligibility to receive assistance under the Title IV, HEA programs by coming into compliance with the rule that all courses, systems, modules, or rotations are passed. See Section 3.10, Remediation. See Section 6.6, Satisfactory Academic Progress Standard for Financial Aid Recipients.

2.2.12. Promotion

Promotion is defined as progression from one academic year to the next.

- The faculty will recommend students to the Dean for promotion.
- A student will **not** be recommended for progression to the next academic year with any outstanding grades of (I) or (F). Students must have a grade average of 2.0 or above.
- When considering a student for promotion, the student’s professional, ethical, and personal conduct will also be taken into consideration. Therefore, a student must adequately conform to the standards set forth in the Academic Catalog and Student Handbook to be eligible for promotion.
- A student will be promoted only if all academic, legal and financial requirements to LECOM are satisfied.

2.2.13. Academic Probation

- A. Academic probation is defined as a period of time during which a student’s academic progress will be closely monitored by the ASP Committee and the Dean. The Dean will specify the probationary period.

Students of the School of Pharmacy will be placed on probation after failure of a course; unsatisfactory academic performance or for other causes stated in this handbook, such as honor code violations.

Members of the faculty or administration will render a special report in writing to the ASP Committee regarding any student whose professional or personal conduct is deemed unsatisfactory. Professional and personal conduct includes, but is not limited to, the lack of: attendance, cooperation with instructors, interest shown in assigned work, appropriate attitude toward peers and associates, regularly scheduled meetings with faculty advisors, and personal appearance appropriate to the circumstances.

The terms of probation for ethical, professional or personal conduct will be specified at

the time the student is placed on probation.

- B. When a student is placed on probation, the dean will notify the student in writing of the reasons for probation. A copy of this letter will be distributed to the Director for the ASP Committee and the student's faculty advisor. The Committee will ascertain when the terms of the probation have been satisfied and recommend to the appropriate dean that probation can be rescinded. A copy of this letter will be placed in the student's permanent file if the probation is labeled "Disciplinary" as opposed to "Conduct."
- C. A student on probation may not serve as an officer of an official club or organization and shall not engage in time consuming extracurricular activities.
- D. Students on probation must meet with his or her faculty advisor at least every two weeks.
- E. The student will remain on probation until the following minimally acceptable standards are met:
 - The student will be removed from probation when the specified terms have been remediated according to the following remediation section.
 - The student will be removed from probation when the specified terms of probation for ethical, professional, or personal conduct are met.
 - Students in their final year are subject to ASP Committee review prior to removal from probation.
- F. Academic probation should be regarded as a serious matter and is official notice to the student that the quality of the student's performance during the probationary period must improve in order to remain eligible to continue enrollment. Any student who fails to improve his/her performance in the areas identified by the SPG/ASP Committee during the probationary period may continue on probation, be asked to withdraw or be dismissed from LECOM.

2.2.14. Remediation

2.2.14.1. Policy Statement

Remediation is a *privilege*, which may be earned by a student through an active participation in the educational program as demonstrated by regular attendance, individual initiative, and utilization of resources available to him or her. There is no right to remediation. All decisions on remediation rest solely with Administration. All remediations will occur at the end of the semester for an exam and the end of the academic year for a course.

If a student receives a failing grade in a course, system, or clinical rotation, that student will be reviewed by the ASP Committee and procedures for remediation will be recommended by the Committee to the dean. Students taking a remedial examination must score 70% or greater for the School of Pharmacy. There will be no appeals of the remediation grade. However, the highest grade a student may earn through remediation is 70, and this is the grade that will be recorded in the transcript.

2.2.14.2. Procedures for the School of Pharmacy

In reviewing the student's academic deficiencies, the following guidelines shall be used:

- The ASP Committee will consider all (F) grades in courses or rotations as requiring remediation.
- Educational objectives and evaluation techniques for remedial courses should be the same as the educational objectives and evaluation techniques associated with courses in the regular curriculum. Where deemed appropriate, the ASP Committee, after consultation with the Course Coordinator or appropriate Associate Dean/Campus Director, may recommend any of the following options for the student:

A. Didactic Courses:

1. Students scoring between 59.5 and 69.4% (60-69) in a course will take a remedial examination. Students need to score at least a 70% to pass a remediation course or exam.
 - a. A Remedial Examination Fee will be assessed to all individuals taking a remedial exam. This fee will be \$100. The fee must be paid to the Office of the Dean prior to the student taking the remedial exam.
 - b. All remedial examinations must be taken when scheduled by the ASP Committee, which will be no sooner than the first day of the next term and no later than the completion of the *first* week of that term. Remedial examinations for the courses in the spring term of the first year must be taken when scheduled by the ASP Committee, which will be no sooner than one week after the final exam of the failed course but must be completed within two weeks of the end of finals week or before starting the first IPPE rotation, whichever comes first. Remedial examinations for courses in the summer term of the second year must be taken when scheduled by the ASP Committee, which will be no sooner than one week after the final exam of the failed course, but must be completed within two weeks of the end of finals week or before beginning of the first APPE rotation, whichever comes first before progression to the third academic year. Students in the distance education pathway will take their remedial exams as scheduled by the

Chairman of the ASP Committee.

- c. Failure of the Remedial Exam will result in the student being considered in a similar manner to those students receiving less than 59.5% in a course. (See Item 2 below.). Students in the distance education pathway will complete their remedial course(s) at home with the use of synchronous online meetings with faculty as needed.
2. Students scoring below 59.5% in a course will be required to complete a remedial course, including competency assessments as determined by the instructor. The fee for this course, which must be paid in advance, is \$500. This would also apply to remediations of rotations (IPPE and APPE). The *remedial course* may include, but is not limited to, the following:
 - a. Special projects or studies in the deficient area(s);
 - b. Repetition of the course; or
 - c. Participation in a self-study course.

All remedial courses must be completed before progressing. *Remedial coursework may lead to a delay of IPPE rotations, which may cause a delay in the date of graduation.*

3. In Erie, students failing two or more courses within a quarter will be required to meet with the ASP Committee to discuss their academic progress. The ASP Committee may recommend academic/professional counseling.
4. In Erie, students may have a maximum of three (3) original course failures in their P1 academic year and four (4) original course failures in their P2 academic year. Exceeding these maximum remediation limits will result in a review by the ASP committee which may recommend dismissal.
5. In the Bradenton and DE pathways, students may have a maximum of two original course failures per academic year. Exceeding maximum remediation limits will result in a review by the ASP committee which may recommend dismissal. Any failure will be referred to the ASP committee.

B. Experiential Rotations:

1. In the case of an F on a rotation, the Director of Experiential Education may assign the site and the preceptor of the subsequent rotation. See the Clerkship Manual for more information on when the make-up will be scheduled and for information on disciplinary actions.
2. Students failing one experiential rotation may be required to meet with the

ASP Committee to discuss their academic progress. The ASP Committee may recommend academic/professional counseling.

3. Students can repeat a maximum of two failed experiential rotations. This may delay progression to the next academic year and/or anticipated graduation date.

C. Remediation Information

The highest grade a student may earn through remediation is a C (70%). The remediation grade will be recorded on the transcript with an asterisk. For those students required to remediate off-campus, a footnote will specify the institution where the remediation occurred.

Any student who is required to remediate a course will be notified in writing by the Dean within a reasonable period of time - generally within fifteen (15) working days after receiving the student's grades from the Office of the Registrar.

Grades earned during an attempted remediation will be reviewed critically by the ASP Committee and the Dean. Failure to earn at least a C or a 70% in remediation course may result in dismissal from the School.

Decisions regarding remediation will be made on an individual basis after considering all pertinent circumstances. The decision will be made by the Dean, based upon the recommendations of the ASP Committee. The ASP Committee will base its recommendations on the student's academic record and consideration after consultation with the Preceptor, Course Coordinator and/or Associate Dean/Campus Director, as well as the student involved when appropriate.

D. Remediation Expenses:

Remedial examinations require a \$100 processing fee paid in advance. Fees for remediation in a course will be determined individually based on a prorated scale. All remediation fees should be delivered to the Office of the Dean, and all fees must be paid in full and in advance of the start of the remediation process.

If the student at the end of the academic year is still considered to be making unsatisfactory progress and must remediate, he or she may be removed from the list of financial aid recipients. Refer to Satisfactory Academic Progress Standard for Financial Aid Recipients in this document.

Students attend remediation courses at their own expense. Remediation is **not** covered by any financial aid and cannot be considered an expense item on the next academic year

financial aid budget. Appropriate instructional fees for on-campus remediation will be determined by the School.

2.2.15. Dismissal

LECOM may dismiss a student at any time if circumstances of a legal, moral, behavioral, ethical, health or academic nature justify such an action and if it is deemed necessary to safeguard its standards of scholarship, conduct, and orderly operation.

The ASP Committee may recommend dismissal of a student for any of the following reasons:

- A. Receiving a grade of (F), defined as below 70% in a remediated course or experiential rotation for the School of Pharmacy.
- B. Receiving a grade of (F) in more than two clinical or experiential rotations or three failures in an academic year.
- C. Unsatisfactory professional and personal behavior, including but not limited to the following:
 - Attendance
 - Cooperation with instructors
 - Interaction with fellow students, associates, LECOM or clinical site personnel
 - Approach to and interaction with patients
 - Personal appearance not in compliance with the LECOM dress code.
- D. Failure to demonstrate continued academic and professional growth and achievement.
- E. Conviction of a felony or a crime involving moral turpitude.
- F. In the Accelerated Pathway (Erie): Four original course failures during the first academic year; Five original course failures during the second academic year; Original course failure of lower than 59.4% or remedial exam failure after the limit of two remedial courses in any academic year; Two experiential rotation failures in one academic year One remedial course failure
- G. In the Traditional Pathway, (Bradenton) and the Distance Education Pathway: Three original course failures in any academic year; Two experiential rotation failures in one academic year; One remedial course failure.
- H. The need to remediate more than two courses or rotations in the same academic

year.

This list is not exclusive. The academic record of any student who has been dismissed will be a part of the data reviewed if the student applies for re-admission. If the student seeks re-admission, the student must go through the admissions process.

2.3. GRADUATE STUDIES

2.3.1. Health Sciences Post-Baccalaureate Program

LECOM offers a unique educational program intended to increase opportunities and options in science for college graduates. The Health Sciences Post-Baccalaureate Program (Postbac) offers a rigorous curriculum centered in the basic medical sciences to prepare students for medical, pharmacy or dental programs.

The Health Sciences Post-Baccalaureate Program for the College and the SDM is founded on the following goals and objectives:

Goal 1: Acquire the knowledge, skills and attitudes of the basic biomedical sciences necessary for a career in the health professions.

Objective: Complete a lecture-based curriculum in cell biology, biochemistry, microbiology, genetics, histology, physiology, histology, pathology, anatomy, virology, immunology, pharmacology/toxicology and critical thinking.

Goal 2: Correlate the basic biomedical sciences with their clinical applications in osteopathic medicine.

Objectives:

1. Complete a lecture-based curriculum in pathology and introduction to medicine;
2. Participate in the introduction to osteopathic medicine coursework; and
3. Present and participate in seminar topics in pathology.

The Postbac program for the SOP is founded on these goals and objectives:

Goal 1: Acquire the knowledge, skills and attributes of the basic biomedical sciences necessary for a career in pharmacy.

Objective: Complete a lecture-based curriculum in cell biology, biochemistry, histology, physiology, microbiology, pathology, pharmacology/toxicology, pharmaceutical sciences and advanced chemistry.