**M.S. in Physiology**

Physiology is the basis of medicine. As such, the Master of Science in Physiology (MSP) Program is designed for college graduates who are interested in strengthening their understanding of medical physiology with the intent of enhancing their academic credentials to succeed in future professional biomedical programs such as medical school, dental school, or physical therapy, physician assistant and perfusionist programs.

The MSP Program is a new full-time nine month curriculum running from early-September to late-May. MSP students will pursue intensive studies in graduate cell physiology, physiological biochemistry, organ system medical physiology, neurophysiology, basic human anatomy, introduction to pathophysiology, and medical bioethics. The Program also includes a course on Professional Development to help each student with their applications to future biomedical programs. Each student in the MSP Program will be assigned a faculty advisor to guide them throughout the program, as well as with their post-graduate applications. We also provide assistance for students interested in local volunteer community programs to further explore various medically-related career paths and as part of their future applications to professional biomedical programs. Our courses are designed specifically for MSP students and are classroom taught by medical school faculty professors who have extensive experience teaching first and second year medical students at Loyola University Stritch School of Medicine. Successful completion of the MSP Program will provide the student with a strong foundation for success in a wide variety of future professional biomedical program.

**M.S. in Physiology Program:**

* The MSP Advantage
* Admissions Requirements
* Curriculum
* Faculty
* Tuition

**The MSP Advantage:**

* The MSP Program is based on the premise that physiology is the basis of medicine. As such, the MSP Program is designed to enhance the student’s fundamental understanding of medical physiology and thereby better prepare them for future professional biomedical programs, such as medical school, dental school, or physical therapy, physician assistant and perfusionist programs.
* The MSP Program also will provide the student with the opportunity to engage in graduate level medically-relevant courses and thereby enhance the student’s academic credentials for applications to future biomedical programs.
* The MSP Program courses are classroom taught by medical school professors with extensive experience teaching first and second year medical students at the Stritch School of Medicine.
* The MSP Program will matriculate only 25 students. This small class size provides each student with a more personalized educational experience.
* The MSP Program is unique in that we offer a **Pathophysiology** course taught by an MD, board certified cardiologist; a **Professional Development** course designed to enhance the students ability to prepare resumes, develop interview skills and provide opportunities for students to interact with professionals in medical fields, and a **Medical Bioethics** course that will enhance the student’s understanding and appreciation of contemporary medical ethical issues and the application of medical ethics in their future professional biomedical careers.
* Each MSP student is assigned a faculty advisor that will help guide them through the program as well as help them with future applications to professional programs.
* The MSP Program will provide assistance to students seeking to gain volunteer experience to further explore medically-related career opportunities.
* Students interested in attending medical school will be guaranteed an admissions interview at the Loyola University Chicago, Stritch School of Medicine by achieving a GPA in the MSP Program of 3.5 or higher and whose most recent MCAT score is 30 or higher. MCATs taken after completion of the MSP Program must be taken within one year of completion of the Program.

**Admission Requirements:**

 The MSP Program is designed for highly motivated students seeking to enhance their understanding of human physiology and improve their academic credentials for future professional biomedical programs. Candidates for the MSP Program will be required to have the following minimum requirements:

• Baccalaureate degree from an accredited college or university with an undergraduate cumulative GPA of 3.0 or better.

• One year of biology, one year of general chemistry, one year of organic chemistry, one year of physics and one year of mathematics, preferably calculus.

• Official MCAT scores with a minimum required score of 27 or GRE scores with a minimum of 1100 (verbal plus quantitative) or DAT scores with a minimum of 16. Only scores obtained within the last three years will be considered.

• Official transcripts from ALL undergraduate and graduate institutions attended.

• A personal statement that expresses your motivation and future plans for a professional biomedical career as well as your experiences that have contributed to your chosen career path. This would include any relevant clinical, employment, teaching, or research experiences.

• Two letters of recommendation appropriate for acceptance into a Masters degree program. Pre-med committee letters are acceptable.

* Applicants must agree to an Illinois State criminal background check. Self disclosure of these types of issues is in the best interest of applicants.
* All applicants will be required to fill out an online application to the Loyola University Chicago Graduate School.

APPLY HERE: (<http://gradapp.luc.edu/gradapp/login.htm>)

The deadline for receipt of applications is July 15, 2011. Students must commit to their acceptance into the Program by August 1, 2011. We use a rolling admissions process and therefore encourage applicants to apply as early as possible.

Updated materials such as transcripts and letters of recommendation can be sent to: Graduate and Professional Enrollment Management, 820 N. Michigan Ave., Lewis Towers, Room 800, Chicago, IL 60611.

The graduate and medical programs at Stritch School of Medicine are separate programs. Therefore any material submitted to Stritch School of Medicine must be re-submitted to the MSP Program.

MSP Program staff cannot provide you with updates about your application.

**MSP Program Curriculum:**

**Semester One (Fall)**

Cell Physiology (PIOL 417; 3 credits)

Biochemical Physiology (PIOL 420; 3 credits)

Function of the Human Body I (PIOL 421; 4 credits)

Professional Development (PIOL 500; 2 semesters)

Medical Bioethics (BEHP 401; 1 credit)

**Semester Two (Spring)**

Fundamentals of Neurophysiology (PIOL 450; 3 credits)

Function of Human Body II (PIOL 422; 4 credits)

Basic Human Anatomy (PIOL 430; 2 credits)

Introduction to Human Pathophysiology (PIOL 460; 3 credits)

Professional Development (PIOL 500; 1 credit)

The MSP Program consists of 8 courses (total 24 credit hours) designed specifically for MSP students. Each course is classroom taught by Stritch School of Medicine faculty. Function of the Human Body (I & II) and Professional Development are taught over two semesters. The Introduction to Pathophysiology also requires a library research paper related to a specific pathophysiological topic. In addition to lectures, each physiology course consists of small group discussions of clinical case studies related to lecture topics, as well as scheduled review sessions with the lecturing faculty member.

Students must achieve an overall grade of B to successfully complete the Program. Students falling below a B average in the first semester of the Program will be placed on academic probation and will receive counseling from their advisor and the program director. Students receiving a grade of C or less in any two courses will be dismissed from the Program. There is no remediation of individual courses.

**Faculty:**

Each course in the MSP program is run by a Course Director as follows:

Stephen L. Lipsius, Ph.D., Professor of Physiology

MSP Program Director

Course Director: Function of the Human Body I & II

slipsiu@lumc.edu

Samuel Cukierman, MD, Ph.D., Associate Professor of Physiology

Course Director: Cell Physiology

scukier@lumc.edu

Mark G. Kuczewski, Ph.D., Professor of Medical Ethics

Course Director: Clinical Bioethics

mkuczew@lumc.edu

John McNulty, Ph.D., Professor of Physiology

Course Director: Basic Human Anatomy

jmcnulty@lumc.edu

Gregory Mignery, Ph.D., Professor of Physiology

Course Director: Biochemical Physiology

gmigner@lumc.edu

Toni Pak, Ph.D., Assistant Professor of Physiology

Course Director: Professional Development

tpak@lumc.edu

Erika Piedras-Renteria, Ph.D., Associate Professor of Physiology

Course Director: Fundamentals of Neurophysiology

epiedra@lumc.edu

Allen M. Samarel, MD., William B. Knapp Professor of Medicine and Physiology

Course Director: Introduction to Pathophysiology

asamare@lumc.edu

 **MSP Program:**

**Tuition:**

 $1,480 per credit hour (24 credit hours) = $35,520.00

**Mandatory Fees:**

Matriculation Fee: $100

Activity Fee: $50/semester

Health Services Fee: $150/semester

Fitness Center: $136/semester

Health Insurance: Proof of Health Insurance or $1880/year

**Optional Fee:**

Student Parking: $238.33 (August 1, 2011 - July 1, 2012)