



HEALTH SCIENCES  
DIVISION

**Master of Science in Medical Physiology  
Program**

Student Handbook

2021 – 2022

Loyola University Chicago  
Stritch School of Medicine  
Department of Cell and Molecular Physiology

## **MSMP Student Handbook**

Welcome to Loyola University Health Sciences Campus! We are excited that you chose to continue your studies with us. In this handbook you will find all the information to get you from orientation to graduation. It provides the basics about the MSMP Program, student expectations, and administrative information.

### **PURPOSE OF THE HANDBOOK**

This handbook contains information both necessary and helpful to graduate students pertaining to academic requirements, facilities, and activities. The information presented here supplements that found in the Loyola University Chicago Graduate School Catalog and the Health Sciences Division Graduate Student Handbook. It is not intended to be definitive, as changes in the graduate program may occur, and interpretation of regulations may require decisions by the Director of the MSMP Graduate Program, the Departmental Chairperson, Graduate Program Director (GPD), or the faculty.

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## **General Description**

A solid understanding of physiology is the basis of medicine and therefore essential for anyone seeking to pursue a professional biomedical career. Therefore the Department of Cell and Molecular Physiology is offering a 1 year non-thesis program leading to a Master's of Science in Medical Physiology (MSMP) for college graduates interested in enhancing their understanding of medical physiology for future professional biomedical careers, such as medical school. The MSMP Program is a non-thesis, full-time nine month curriculum running from early-September to May. MSMP students will pursue intensive studies in graduate cell physiology, physiological biochemistry, organ system medical physiology, neurophysiology, basic human anatomy, introduction to pathophysiology, and clinical 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 MSMP 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. Successful completion of the MSMP Program will provide the student with a strong foundation for success in a wide variety of future professional biomedical programs.

The goal of the MSMP program is to:

- 1) enhance the student's understanding and general knowledge of cell and organ systems physiology, pathophysiology, neurophysiology and human anatomy,
- 2) allow students to demonstrate their ability to perform graduate level, medical course work,
- 3) enhance the students understanding of the requirements for applications to professional biomedical programs,
- 4) foster student's ability to work in teams, to conduct correct bibliographic research on clinical topics, to present their work in an academic setting, and to write a scholarly paper,
- 5) provide a basis for critically evaluating ethical approaches to the practice of medicine, and
- 6) develop the student's professionalism.

## **M.S.M.P. Program Information**

### **Overview**

The MSMP program is a 1 year (2 semesters) non-thesis program that includes the following:

#### **Semester One (Fall)**

Cell Physiology (PIOL 417; 3 credits)

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

Biochemical Physiology (PIOL 423; 3 credits)

Professional Development (PIOL 500; 1 credit)

Clinical Bioethics (BEHL 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)

The MSMP Program consists of 9 courses (total 24 credit hours) designed specifically for MSMP students. The Introduction to Human Pathophysiology also requires a library research paper related to a specific pathophysiological topic. The Fundamentals of Neurophysiology course requires research and team presentation on a neurological disease. In addition to lectures, each physiology course consists of small group discussions related to lecture topics, as well as scheduled review sessions with the lecturing faculty member.

### **Faculty**

- Virginie Mansuy-Aubert, PhD
- Jordan Beach, PhD
- Robert Fryszak, PhD
- Justin Harbison, PhD
- Simon Kaja, PhD
- Jonathan Kirk, PhD
- Sandra Kletzel, PhD
- Mark Kuczewski, PhD
- Ivana Kuo, PhD
- Amy Luke, PhD
- Virginia McCarthy
- Ruben Mestril, PhD
- Gregory Mignery, PhD
- Patrick Oakes, PhD
- Toni Pak, PhD
- Erika Piedras-Rentería, PhD
- Seth Robia, PhD
- Karie Scrogin, PhD
- David Shoham, PhD
- Meharvan Singh, PhD
- Jeanine Walenga, PhD
- Aleksey Zima, PhD

## Evaluation

A minimum grade of 70% will be required to pass all courses. Letter grades for the course will be assigned on the following percentages:

100 – 90%	A
89 – 87%	B+
86 – 83%	B
82 – 80%	B-
79 – 77%	C+
76 – 73%	C
72 – 70%	C-
69% or less	No Credit

However, course faculty reserve the right to lower the grading scale below the percentages shown above for any or all letter grades if warranted based on class performance.

The MSMP program uses the following grade conversion system:

A = 4.0
B+ = 3.33
B = 3.0
B- = 2.67
C+ = 2.33
C = 2.0
C- = 1.67
D+ = 1.33
D=1.0
F = 0.0

## Computation of Academic Grade-Point Averages

The transcript reflects a student's actual academic record and the cumulative GPA includes *all* grades earned during the pursuit of the degree. Students must maintain at least a 3.0 or higher cumulative GPA for all graduate-level and undergraduate-level courses required for the degree. No more than two courses for which a student receives a final grade of C+ (2.33) or C (2.00), and no course for which a student receives a final grade of less than a C (2.00), will count toward completion of the degree or certificate requirements, although such grades will contribute to the student's cumulative GPA. There is no remediation of individual courses.

## Graduation

**Students must achieve an overall grade of B to successfully complete the program and be conferred their Master's Degree.** Students falling below a B average in the STEM courses

(PIOL 417, PIOL 421, and PIOL 423) during the first semester of the program will be placed on academic probation and will receive counseling from their advisor and the program director during the semester. Failure to achieve a B grade average in the STEM courses in the first semester may result in dismissal from the program by the Academic Review Committee. The Academic Review Committee will consist of the MSMP program director, the student's advisor, and a MSMP faculty appointed by the MSMP program director.

### **Students with a Disability**

Students seeking academic accommodations for a disability must meet with Services for Students with Disabilities (SSWD) to verify the disability and to establish eligibility for accommodations. Students may visit SSWD in Sullivan Center - Suite 117, call 773-508-3700, email SSWD@luc.edu, or visit LUC.edu/sswd to begin the process. Students should schedule an appointment with their instructor to discuss any academic concerns and/or accommodations. Students are encouraged to contact SSWD as early in the semester as possible.

### **Classroom Recording**

Video/audio recording of lectures and classroom discussion by students is prohibited; however, in some cases recording may be permitted *provided the instructor and all members of the classroom are notified and have given consent.* Lectures and course material are intended solely for the students enrolled in the class, and should not be transmitted or distributed publicly. Please refer to course syllabi for more specific information.

### **Online Teaching (if needed)**

Software may be used to record live class discussions as needed. As a student, your participation in live class discussions will be recorded. These recordings will be made available only to students enrolled in the class, to assist those who cannot attend the live session or to serve as a resource for those who would like to review content that was presented. Students who prefer to participate via audio only will be allowed to disable their video camera so only audio will be captured. Please discuss this option with your instructor.

The use of all video recordings will be in keeping with the University Privacy Statement shown below:

### **Privacy Statement**

Assuring privacy among faculty and students engaged in online and face-to-face instructional activities helps promote open and robust conversations and mitigates concerns that comments made within the context of the class will be shared beyond the classroom. As such, recordings of instructional activities occurring in online or face-to-face classes may be used solely for internal class purposes by the faculty member and students registered for the course, and only during the period in which the course is offered. Students will be informed of such recordings by a statement in the syllabus for the course in which they will be recorded. Instructors who wish to make subsequent use of recordings that include student activity may do so only with informed written consent of the students involved or if all student activity is removed from the recording. Recordings including student activity that have been initiated by the instructor may be retained by the instructor only for individual use.

**Leave of Absence**

Official leaves of absence are intended for students who wish to discontinue temporarily their graduate studies due to special circumstances (e.g., medical, personal or professional reasons). Students who are on a leave of absence may not use University resources. A leave of absence postpones all deadlines concerning completion of degree requirements for the duration of the leave of absence. A student requesting a leave of absence is to complete a Leave\_of\_Absence form.

Leaves of absence are limited to a period of one full academic year without renewal.

In order to be reinstated to active status, the student must notify the Graduate Program Director in writing upon returning from a leave of absence. The student must return to active status in the semester following the expiration of a leave of absence; failure to do so may result in dismissal from the program. If a student's leave of absence starts after the semester has commenced, the student may come back at the beginning of the semester and may retake all classes again. The grades and quizzes earned by the student prior to the leave of absence will remain on record (the student will only have to take the exams and quizzes that s/he did not have the chance to take before).



## **Expectations for All Students**

### **Academic Honesty**

The graduate school promotes the concept of academic honesty for students and faculty alike and a statement to this effect is incorporated into the LUC Graduate School Statement on Academic Honesty. This policy states:

“Academic honesty is an expression of the ethic of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. Academic dishonesty is characterized by the failure to apply this ethic, i.e., any action whereby faculty, student or staff misrepresents the ownership of academic work submitted in his or her name”.

Student failure to practice academic honesty will, depending on the seriousness of the misconduct, result in a sanction ranging from up to a grade of “F” for the assignment to expulsion from the university. Channels for resolution of questions regarding such behavior will originate with the faculty (the course director) and the student, and will extend to the department and graduate school if deemed necessary. The academic grievance procedure is detailed in the Graduate School Handbook (available at the LUHSC Graduate School office).

A serious issue that student should be careful about concerns their writing practices. It is important to avoid any potential or real plagiarism or even self-plagiarism. For a comprehensive guide on this issue see Guidelines for Avoiding Plagiarism.

### **Professional Competency**

The MSMP Program is designed to enhance the student’s ability to gain acceptance to medical school and thereby function as a member of the medical profession. Therefore, MSMP students must demonstrate attitudes, and behaviors necessary to function as a respected member of the medical profession. They must understand the obligations of medical professionals as members of a healthcare team, as members of a healthcare and educational institution, and as leaders in our society bringing about the common good. Therefore MSMP students are expected to act professionally and demonstrate appropriate behavior, respect and integrity when interacting with faculty, staff and fellow students at the medical center. Channels for resolution of questions regarding unprofessional behavior will originate with the faculty (the Course Director) and the student, and will extend to the department and graduate school if deemed necessary. The grievance procedure is detailed in the Graduate School Handbook (available at the LUHSC Graduate School office).

Professional conduct is expected from all MSMP students. Examples of Professionalism (assessed by Faculty and Course Director) include:

- Demonstrate professional behavior by completing all course requirements, including course evaluations, in a timely manner.
- Demonstrate professionalism by behaving in a professional, courteous and respectful manner when engaged in course activities or interacting with course faculty and staff.
- Demonstrate responsibility and accountability by attending and being punctual at all required course activities.

- Demonstrate professional behavior by requesting any excused absence from required course activities well ahead of the scheduled date.
- Demonstrate professional behavior by responding to direct communication from the Course Director in a timely fashion, particularly in circumstances when a face-to face meeting is requested to discuss issues related to academic performance.
- Demonstrate professional and ethical behavior by honestly completing course examinations without attempting to seek an advantage by unfair means; and by reporting any unethical behavior of peers to the course administration.

## **Guidelines for Avoiding Plagiarism, Self-Plagiarism, and Questionable Writing Practices**

The following guidelines are taken directly from "Avoiding plagiarism, self-plagiarism, and other questionable writing practices: A guide to ethical writing" by Miquel Roig.

**Guideline 1:** An ethical writer ALWAYS acknowledges the contributions of others and the source of his/her ideas.

**Guideline 2:** Any verbatim text taken from another author must be enclosed in quotation marks.

**Guideline 3:** We must always acknowledge every source that we use in our writing; whether we paraphrase it, summarize it, or enclose it quotations.

**Guideline 4:** When we summarize, we condense, in our own words, a substantial amount of material into a short paragraph or perhaps even into a sentence.

**Guideline 5:** Whether we are paraphrasing or summarizing we must always identify the source of your information.

**Guideline 6:** When paraphrasing and/or summarizing others' work we must reproduce the exact meaning of the other author's ideas or facts using our words and sentence structure.

**Guideline 7:** In order to make substantial modifications to the original text that result in a proper paraphrase, the author must have a thorough understanding of the ideas and terminology being used.

**Guideline 8:** A responsible writer has an ethical responsibility to readers, and to the author/s from whom s/he is borrowing, to respect others' ideas and words, to credit those from whom we borrow, and whenever possible, to use one's own words when paraphrasing.

**Guideline 9:** When in doubt as to whether a concept or fact is common knowledge, provide a citation.

**Guideline 10:** Authors who submit a manuscript for publication containing data, reviews, conclusions, etc., that have already been disseminated in some significant manner (e.g., published as an article in another journal, presented at a conference, posted on the internet) must clearly indicate to the editors and readers the nature of the previous dissemination.

**Guideline 11:** Authors of complex studies should heed the advice previously put forth by Angell & Relman (1989). If the results of a single complex study are best presented as a ‘cohesive’ single whole, they should not be partitioned into individual papers. Furthermore, if there is any doubt as to whether a paper submitted for publication represents fragmented data, authors should enclose other papers (published or unpublished) that might be part of the paper under consideration (Kassirer & Angell, 1995). Similarly, old data that have been merely augmented with additional data points and that are subsequently presented as a new study can be an equally serious ethical breach.

**Guideline 12:** Because some instances of plagiarism, self-plagiarism, and even some writing practices that might otherwise be acceptable (e.g., extensive paraphrasing or quoting of key elements of a book) can constitute copyright infringement, authors are strongly encouraged to become familiar with basic elements of copyright law.

**Guideline 13:** While there are some situations where text recycling is an acceptable practice, it may not be so in other situations. Authors are urged to adhere to the spirit of ethical writing and avoid reusing their own previously published text, unless it is done in a manner consistent with standard scholarly conventions (e.g., by using of quotations and proper paraphrasing).

**Guideline 14:** Authors are strongly urged to double-check their citations. Specifically, authors should always ensure that each reference notation appearing in the body of the manuscript corresponds to the correct citation listed in the reference section and vice versa and that each source listed in the reference section has been cited at some point in the manuscript. In addition, authors should also ensure that all elements of a citation (e.g., spelling of authors’ names, volume number of journal, pagination) are derived directly from the original paper, rather than from a citation that appears on a secondary source. Finally, authors should ensure that credit is given to those authors who first reported the phenomenon being studied.

**Guideline 15:** The references used in a paper should only be those that are directly related to its contents. The intentional inclusion of references of questionable relevance for purposes of manipulating a journal’s or a paper’s impact factor or a paper’s chances of acceptance is an unacceptable practice.

**Guideline 16:** Authors should follow a simple rule: Strive to obtain the actual published paper. When the published paper cannot be obtained, cite the specific version of the material being used, whether it is conference presentation, abstract, or an unpublished manuscript.

**Guideline 17:** Generally, when describing others’ work, do not rely on a secondary summary of that work. It is a deceptive practice, reflects poor scholarly standards, and can lead to a flawed description of the work described. Always consult the primary literature.

**Guideline 18:** If an author must rely on a secondary source (e.g., textbook) to describe the contents of a primary source (e.g., an empirical journal article), s/he should consult writing manuals used in her discipline to follow the proper convention to do so. Above all, always indicate the actual source of the information being reported.

**Guideline 19:** When borrowing heavily from a source, authors should always craft their writing in a way that makes clear to readers, which ideas are their own and which are derived from the source being consulted.

**Guideline 20:** When appropriate, authors have an ethical responsibility to report evidence that runs contrary to their point of view. In addition, evidence that we use in support of our position must be methodologically sound. When citing supporting studies that suffer from methodological, statistical, or other types of shortcomings, such flaws must be pointed out to the reader.

**Guideline 21:** Authors have an ethical obligation to report all aspects of the study that may impact the independent replicability of their research.

**Guideline 22:** Researchers have an ethical responsibility to report the results of their studies according to their a priori plans. Any post hoc manipulations that may alter the results initially obtained, such as the elimination of outliers or the use of alternative statistical techniques, must be clearly described along with an acceptable rationale for using such techniques.

**Guideline 23:** Authorship determination should be discussed prior to commencing a research collaboration and should be based on established guidelines, such as those of the International Committee of Medical Journal Editors.

**Guideline 24:** Only those individuals who have made substantive contributions to a project merit authorship in a paper.

**Guideline 25:** Faculty-student collaborations should follow the same criteria to establish authorship. Mentors must exercise great care to neither award authorship to students whose contributions do not merit it, nor to deny authorship and due credit to the work of students.

**Guideline 26:** Academic or professional ghost authorship in the sciences is ethically unacceptable.

Roig, M. Avoiding plagiarism, self-plagiarism, and other questionable writing practices: A guide to ethical writing. St Johns University. 03/12/2009.  
[http://ori.hhs.gov/education/products/roig\\_st\\_johns/](http://ori.hhs.gov/education/products/roig_st_johns/).

## **Administrative Information**

### Tuition, Fees and Financial Aid

#### *Payments and Fees*

There are mandatory fees associated with enrollment as a student, as described below, that are the responsibility of each student. Information about your student account can be found by logging into LOCUS at <https://locus.luc.edu>. **An electronic bill (e-bill) is generated by Loyola on the 15<sup>th</sup> of every month. Payments are due on the 5<sup>th</sup> of the following month.** Late fees are assessed at 1.5% of the past due balance on your student account. Your e-bill can be found on LOCUS under **Campus Finances → View E-bill → View Details**.

Mandatory fees are explained in detail below. **The deadline to pay fees is October 5<sup>th</sup> for all incoming students. DO NOT wait until your tuition is paid before you pay this fee or you will be charged a late fee. If you want to know when your fees are due or have questions about your fees, call the Bursar's Office (x87705).**

#### **Matriculation Fee: \$100**

This is a one-time fee for all graduate students. This fee will be billed to your student account in LOCUS during your first semester of enrollment.

#### **Technology Fee: \$125**

This fee covers the refreshing of student technology and improved student life and learning.

#### **Student Development Fee: \$172/semester**

This fee funds multiple programs and services for students depending upon the term.

#### **Health and Fitness Center fee: \$172/semester**

This fee funds the use of the fitness center on campus.

#### **Other helpful websites for payments and fees:**

**E-Bill:** <http://luc.edu/bursar/ebilling/index.shtml>

**Payment Options:** [http://www.luc.edu/bursar/payment\\_options.shtml](http://www.luc.edu/bursar/payment_options.shtml)

**Credits & Refunds:** <http://www.luc.edu/bursar/refunds.shtml>

### Student ID/Parking

Student IDs will be issued at the first face-to-face meeting. Students have the option to pay for parking in Deck C located at the south end of campus, adjacent to the outpatient building. The parking fee for the 2021-2022 year is \$208.

Your student ID is required to gain access to the Center for Translational Research Building and the Stritch School of Medicine and must be worn at all times on campus.

## Student Health and Counseling Services

### *Student Health*

Students are required to pay a mandatory student health fee. With this fee, access to healthcare is provided by the professionals and staff of the Loyola Employee and Student Health Services located at the south end of the medical center campus in the Loyola Outpatient Center (LOC), 2160 S. 1st Ave, third floor. The direct phone number is 708-216-3156.

### General Office Hours

Monday, Wednesday, Friday: 7:00 a.m. to noon, 1:00 p.m. to 3:30 p.m.

Tuesday, Thursday: 8:30 a.m. to noon, 1:00 p.m. to 5:00 p.m.

Closed noon to 1 p.m. each day

### Appointments

Appointments to see either the SHS nurse or physician are recommended, and should be scheduled by calling Loyola Medicine Appointment Scheduling (LMAS) at 708-216-3400. Most appointments made in this manner will most likely be a week or two away.

If a more immediate appointment needs to be made, the service should be phoned directly. The direct phone number to the SHS is 708-216-3156. General appointments made in this manner will most likely result in the student seeing the nurse. If you must see a physician, make an appointment using the hours listed immediately following.

### Physician Appointment Hours

Monday: 8:00 a.m. to 10:20 a.m.

Wednesday: 1:00 p.m. to 3:30 p.m.

Friday: 1:00 p.m. to 3:30 p.m.

Physician hours may flex due to doctor's schedule at his/her home clinic

Walk-in care is available for injury triage, exposures and acute illness assessment.

### Student Health Services Provided

- Immediate care for acute illness, injury, needle sticks, chemical/biological/other exposures
- Release from, or return to, school clearances
- Mandatory Respirator fit-testing
- Monitoring and reporting of all mandatory immunizations (MMR, TDap, Varicella, and Hepatitis B). Student is required to have these immunizations prior to matriculation to Stritch. The SHS can administer these immunizations for an additional fee, if the student is found not immune or has not received or completed the series.
- Administers the annual free influenza vaccine
- Completion of forms for away rotations
- Well Woman Check
- Written prescriptions as needed to cover acute illness or injury

Note that immunizations may be more economically obtained through the student's primary care provider under their personal health coverage, depending on the student's plan.

### *Loyola Health Insurance Plan*

Students will be enrolled automatically in Loyola's Health Care Plan. It is required that you be enrolled in either Loyola's health insurance or another insurance provider. If you are enrolled in another health insurance plan, you MUST WAIVE Loyola's Health Care Plan on-line by October 1. This can be done via LOCUS at <https://locus.luc.edu>. Under Campus Finances → Student Health Insurance, please provide the name of your insurance carrier & policy number.

### *Counseling Services*

Loyola Health Sciences Division offers confidential counseling and support to all students available 24/7. All visits require prior registration at [www.perspectivesltd.com](http://www.perspectivesltd.com) with a username: LUC500 and password: perspectives. You can also call 1-800-456-6327.



Loyola University Health Sciences Library

The library is a great resource to aid you in your graduate education. Library staff can teach more effective techniques to search the literature, introduce you to reference managing software and help you obtain articles that may not be available on campus. For all the library has to offer, see their website at <http://library.luhs.org/hslibrary/index.htm>.

I realize it is my responsibility to read the Loyola University Chicago Master of Science in Medical Physiology Student Handbook and clarify any questions or concerns with the Program Director.

My signature indicates that I have read, understand and agree to adhere to the requirements as stated in the policies and procedures, including the University privacy statement regarding class recordings, published in the Loyola University Chicago MSMP Student Handbook.

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Name of Student (Print)

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Signature of Student