

## One-Year Masters Program

### About Our Program

Our One-Year Masters program in Cell and Molecular Biology targets graduates who plan to attend postgraduate professional schools (primarily Medical School, Dental School, Veterinary School, and Optometry School, but also Business School, Law School, and students who plan to apply to Ph.D. programs). The program will also benefit students who want to enhance their educational experience in preparation for a career path in the Biotechnology Industry. This Master of Science degree is a 1-year non-thesis degree in which students take 30 credit hours during 2 semesters. The curriculum provides students with a specialized academic and experiential background essential for professional school admission.

Our distinctive program emphasizes student development in four areas (coursework, experiential learning, presentation skills, and personal growth) and allows students to build an academic foundation that is conducive to gaining entrance into professional schools. Our coursework emphasizes a solid foundation in cell and molecular biology while introducing students to more clinically relevant topics such as human anatomy, histology, embryology, biochemistry, physiology, and disease. The program provides opportunities for experiential learning in programs we have established with local hospitals. For those students not interested in medicine as their career goal, we have individualized experiential learning programs to meet each student's area of interest. Students develop presentation skills by way of developing seminars on topics selected by each student and also by observing and critiquing invited seminar speakers. Our co-directors work with each student's unique strengths and weaknesses in order to assist them in meeting their career goals.

Key components of our program's success are our Co-Directors, Dr. Garic Grisbaum and Dr. Carol Burdsal. Dr. Garic Grisbaum, M.D., works closely with students in preparing them for their on-site rotations at Ochsner Hospital and in developing their disease-oriented lecture series for the Seminar class. He brings a unique combination of knowledge, insight, and perspective to those applying to medical schools and works tirelessly to help each student realize his or her career path. Dr. Grisbaum teaches CELL 649- Anatomy, as well as CELL 786/787- Seminars, and CELL 799/800- Service Learning/Research. Dr. Carol Burdsal, Ph. D., a respected teacher and researcher, trained at top national research institutions, including Duke University and the University of California at San Francisco, before joining the CMB faculty in 1995. Dr. Burdsal joined the Developmental Biology section of the department and established research programs that focused on cell-cell communication in embryonic development and in cancer biology. As co-director of the Masters program she oversees students who have chosen a research track and ensures that each student gains the most from their experience as a laboratory investigator in preparation for a future career in the

biomedical sciences. Dr. Burdsal also teaches two courses offered to Masters students, CELL 701- Cell Biology and CELL 671- The Molecular Biology of Cancer.

Tuition for the One-Year Masters program in the Department of Cell and Molecular Biology is offered at the discounted rate of \$9,750 per semester for the 2008-2009 academic year (regular Tulane tuition is \$17,550 per semester for the 2007-2008 academic year). Additional required fees charged each semester are not discounted, and for the 2007-2008 academic year include the academic support services fee (\$300), student health service fee (\$245), Reily recreation center fee (\$120) and student activity fee (\$120).

### **Correspondence and Information:**

[Marnie Mercado](#)  
**Department of Cell and Molecular Biology**  
2000 Percival Stern Hall  
Tulane University  
New Orleans, LA 70118  
(504) 865-5618  
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### **Admission Requirements**

For admission to our program, it is preferred that candidates have completed the requirements for a baccalaureate degree in any discipline that includes course work in Chemistry, Biology, and/or Cell Biology. It is also preferred that students will have met the minimum academic requirements for their chosen professional school. If not, additional course work may be required to make up those deficiencies outside of this program. Students from a broad range of academic backgrounds have been admitted to the program in the past, and are encouraged to apply. MCAT, GMAT, LSAT, DAT, ORT, or GRE scores are required.

### **Curriculum**

Students must complete a total of 30 credit hours, with a cumulative GPA of a 3.0 on a 4.0 scale, in order to receive his or her MS degree. Prior to registration, each student will meet with the Directors of the program to review their transcripts. Any deficiencies in the core sciences will be identified at that time and a course schedule will be designed to address each student's individual needs.

All students are required to take the following courses, which total 12 credit hours:

<b>FALL</b>	<b>SPRING</b>
CELL 786 Seminars in CMB (3 credits)	CELL 787 Seminars in CMB (3 credits)
CELL 799 Research in CMB (3 credits) <sup>a</sup>	CELL 800 Research in CMB (3 credits) <sup>a</sup>

The remaining 18 credits will consist of lecture courses such as the electives listed below.

- 600 - Biomedical Ethics (3)
- 601 - Cellular Biochemistry (3)
- 608 - Advanced Developmental and Cell Biology II (3)
- 611 - Cells and Tissues (4)
- 613 - Embryology (4)
- 616 - Developmental Biology (3)
- 621 - Cellular Physiology (3)
- 622 - Microbiology (3)
- 631 - Cellular Neuroscience (3)
- 632 - Systems Neuroscience (3)
- 634 - Neurobiology of Disease (3)
- 635 - Developmental Neurobiology (3)
- 636 - Topics in Neurophysiology (3)
- 637 - Molecular Neurobiology (3)
- 644 - Advanced Molecular Biology (3)
- 649 - Gross Anatomy (4)
- 655 - Synaptic Organization of the Brain (3)
- 663 - Cellular Neurophysiology (3)
- 666 - Special Topics in Cell & Molecular Biology (1-3)
- 671 - Molecular Biology of Cancer (3)
- 678 - Developmental Genetics (3)
- 701 - Cell Biology (3)
- 702 - Cell Biology Laboratory (1)
- 711 - Molecular Biology (3)
- 712 - Molecular Biology Laboratory (1)
- 723 - Microbiology Laboratory (1)
- 734 - Neuroanatomy Laboratory (1)

Students may be permitted to take electives from other departments with the approval of the program's Co-Directors.

<sup>a</sup>Research: This component of the curriculum involves on site work experiences coupled with formal classroom presentations summarizing the work. The Experiential component will be tailored to the student's career path and can range from traditional laboratory research to Service Learning programs in medical or professional settings. The major goals of this course are to 1) provide a learning component that will solidify the student's resolve in pursuing a particular career path, 2) provide a forum for information exchange among fellow students about different career paths, and 3) gain experience in speaking formally about work in this career path.

## **How To Apply**

Applicants are strongly encouraged to submit applications using Tulane's web-based application site at

<https://app.applyyourself.com/?id=tulane-se>. Paper applications can be obtained from the Graduate School website at

[http://www.sse.tulane.edu/pdfs/sse\\_graduate\\_application.pdf](http://www.sse.tulane.edu/pdfs/sse_graduate_application.pdf). Paper applications should

be submitted directly to the Cell and Molecular Biology Department, c/o [Marnie Mercado](#), at the address below. All supporting documents should be submitted directly to the Cell and Molecular Biology Department, for both paper and online applications. (Note: You can self-report your MCAT scores in the Statement of Purpose section of the online application. Use 0's for GRE scores if you have not taken the GRE.)

Applicants are encouraged to apply as early as January 1st, the year seeking admission, with the application deadline for our program being June 15th. Students are accepted to the program on a rolling basis beginning June 1st. Due to possible conflicts with wait listed students for professional schools, applications received after the June 15th deadline will be reviewed on a case-by-case basis.

A complete application to our One-Year Masters program must include the following:

1. Completed application, including statement of purpose.
2. 3 Letters of recommendation (2 science and 1 non-science acceptable, or students may use their committee letters for professional schools or individual letters for professional schools).
3. A photocopy of your official scores in one of the following: GRE (verbal and quantitative), DAT, MCAT, LSAT, or OAT.
4. Transcripts from all previous academic institutions.

The above information must be sent to the following address:

[Marnie Mercado](#)  
Department of Cell and Molecular Biology  
One-Year Masters Program  
6400 Freret Street, Room 2000  
Tulane University  
New Orleans, Louisiana, 70118

Once we have received all the information above, your application will be complete and will be viewed by our admissions committee.

### **Frequently asked questions**

**Q:** What is the tuition for the program?

**A:** Tuition for the One-Year Masters program is offered at the discounted rate of \$9,750 per semester for the 2008-2009 academic year. Please see Tulane's regular tuition and fees at [http://www.sse.tulane.edu/pages/grad\\_curr\\_newstudent.php](http://www.sse.tulane.edu/pages/grad_curr_newstudent.php).

**Q:** Where can I get financial aid information?

**A:** Tulane does not provide financial aid in the form of teaching or research assistantships or tuition waivers for the One-Year Masters program, although students

may be able to obtain loans or grants (see the Financial Aid website, at <http://www.tulane.edu/~finaid/>.)

**Q:** Do I have to register for classes during preregistration periods?

**A:** No. At the beginning of each semester, you will meet individually with the Directors of the program to go over their transcripts and come up with a personalized course plan. Seats are reserved for Masters students so there is no need to register prior to your arrival. You will be contacted in August by the Cell and Molecular Biology Department with information regarding this meeting and other aspects of orientation.

**Q:** What are the average scores for the program?

**A:** Our Fall 2005 entering class had an average undergraduate GPA of 3.39. Those who took the GRE averaged 1187 (verbal + quantitative). Students who took the MCAT averaged 25.65.

**Q:** Are there any scholarships or teaching positions with this program?

**A:** There are no scholarships or teaching assistantships available for this program.

**Q:** Do you have an orientation for the new masters students?

**A:** Yes, an orientation is held in August each year for our new students. After orientation, there is a meet-and-greet with departmental faculty and Ph.D. students. You will be contacted by the Department of Cell and Molecular Biology about the orientation.

**Q:** Do I have to be a Biology major to apply to the program?

**A:** No, all students are encouraged to apply to our program. See [Admission Requirements](#).

**Q:** If I have not completed my prerequisites for my chosen professional school, can I still apply to the program?

**A:** Yes, however, such students will be required to complete the necessary prerequisites on their own time, outside of our program.

**Q:** Where do I report my MCAT scores in the online application?

**A:** You can self-report your MCAT scores in the Statement of Purpose section of the online application. As instructed, use 0's for GRE scores if you have not taken the GRE.

**Q:** Is there a deadline for accepting my spot in the program?

**A:** Yes. When you receive our offer of admission, you will be required to respond by the deadline given. If we do not receive your response by the specified date, you will forfeit your spot in the program. This is necessary due to the high number of qualified applications we receive and the limited number of spots available in the program.

**Q:** How many students do you admit to the program?

**A:** Between 25 and 35 students.

**Q:** How do I apply to the program?

**A:** See [How to Apply](#).

**Q:** What is the deadline for applications?

**A:** The deadline for the applications is June 15th. However, due to the number of wait lists, in regard to professional schools, students may apply after the deadline. Each late application will be viewed by our admissions committee on a case-by-case basis.

**Q:** What do I need to include in my application?

**A:** See [How to Apply](#).

**Q:** Should I apply to professional school while enrolled in the program?

**A:** Yes, it is strongly encouraged that you do apply while in the program.

**Q:** If I have reviewed the website and still have more questions, who do I contact?

**A:** Please contact [Marnie Mercado](#), Executive Secretary. You can reach Marnie at (504) 865-5618, or e-mail her at [mmercado@tulane.edu](mailto:mmercado@tulane.edu).

### **After you are accepted to the program**

When the admissions committee has filled the entire class, the Department of Cell and Molecular Biology will contact you with the following information in early August via e-mail:

1. Date and time for orientations

2. Date and time each student will meet with the Directors of the program for scheduling of classes
3. Start date for classes

### **Special Tuition and Fees**

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### **Student comments about the program**

"My experience with the program is evidence for its effectiveness: I got placed high enough on a waiting list that I am certain to attend medical school in the fall. . . . The program was exactly what my medical school application file needed. Having had poor grades at the beginning of my college career and then a sharp increase in GPA during my last year, I needed to prove that my newly found achievement was not fleeting. Taking graduate science classes and performing well proved that, and therefore granted me admission to my top choice school. . . . The program offers both research opportunities and hospital experience opportunities that put students in an advantageous position for admissions. The Master's program was exactly what I needed and I know there are a lot of students in similar situations as me. I'm sure that it will serve them as well as it's served me." Gene, 2005 graduate, currently enrolled at the University of Washington Medical School

"You don't know how much I talked about our seminar/Ochsner program in my medical school interviews. Students need to be reminded that just because it is a requirement for school, doesn't mean that we can't brag about the awesome skills we are learning in the hospital to medical school interviewers. They ate it up. They loved that we talked about ethics in medicine and that we focused on patient psycho-social skills in the hospital. That was always the homerun in interviews. It really gives us all great experience. As Dr. Scott at USA told us, they know we are all going to be good medical students; they are looking for those who will make good doctors." Elizabeth, 2005 graduate, currently enrolled at Louisiana State University Health Sciences Center School of Medicine at New Orleans

"I feel this masters program made a significant difference on my grad school applications. For me, the CMB one year masters program served as a good supplement to my undergraduate engineering education and provided me with the opportunity to get into the grad schools of my choice." Philip, 2005 graduate, enrolled in doctoral program at Cal Tech

"Going into a one-year program, I was concerned about how everything would come

together in such a short amount of time. The support of the faculty and staff were the component that allowed a smooth transition into the program and navigation through. . . . I do feel that each person is dealt with on their own merit by faculty and staff. Some of the students need more support than others and those that do, receive it. It is nice to be a part of an environment where you know that there are several places you can go to get help for any particular issue, be it academic, personal, or otherwise and be listened to." Kimberly, 2005 graduate, currently enrolled in the Forensic Science Program at George Washington University

"Another pro was the sense of community in the graduate program. . . . I think it was really cool that students and teacher talk after the end of each class, rather than hurrying off like most people. This sense of community was something I have not previously experienced during my education, and was something that I do not think was present in the other masters programs." Derek, 2005 graduate, currently enrolled at Tulane Medical School

"I also personally appreciated the advice and insight you [Dr. Grisbaum] gave us about med school and the medical field in general. . . . Talking about the process of getting into medical school, residency, and medicine as a career had a real calming effect for me. During those classes, instead of feeling out of the loop, I felt like I was a part of something, a process that will eventually lead me to medicine." Jamie, Spring 2005 graduate, currently enrolled at Louisiana State University Health Sciences Center School of Medicine at Shreveport