COURSE SELECTION AND REGISTRATION

Credits to Take

Pre-Candidates must take a minimum of 9 credits to be a full-time student. We recommend 12 credits, and do not recommend any more than 12-15 per semester.

Candidates must take a minimum of 8 credits to be considered full-time (generally we require 9; 8 credits of research and 1 credit of CMB 850). Candidates should reference the Candidate Course Registration policy if they plan to take additional courses as they could be assessed additional tuition (generally over 12 credits/1 course).

Registration

Generally, the university requires the student to initially register for classes by the day before the term starts. Additionally, there is a drop/add deadline a few weeks later by which the student must drop/add courses, or else receive a "W" for "Withdrew," or be required to submit an approval form signed by their program.

CMB Course Requirements at a Glance:

(Discussed in Detail Below)

1. Core Curriculum (3 courses PIBS/1 course MSTP)
2. Electives (6 Credits)
3. Quantitative Training (2-3 Credits – can be "core" or "elective")
4. Grant Writing (Pharm 502 Required in 2nd/G1 Year)
5. Ethics Training (RCR and R&R Required Every 4 Years)
6. CMB Courses (CMB 850 required every semester; CMB 630 required 4 times)

1. CORE CURRICULUM

CMB-PIBS students are required to take 1 course in each of 3 areas:

a. Biochemistry
b. Cell Biology
c. Genetics

MSTP students receive credit hours for medical school and required MSTP coursework. This includes training in biochemistry and cell biology that satisfies CMB requirements in these areas.
CMB-MSTP students are required to take one course in genetics.

The specific courses elected to fulfill these requirements should be based on student's prior educational background. See "Appendix 2" for specific courses based on the following proficiency levels:

- **Level 1.** No background/coursework in the basic area. An introductory class is recommended; in some cases, this may be an upper-level undergraduate course (400-500 level).
- **Level 2.** Some background in the basic coursework area, but not sufficient for Ph.D. training. A mid-level survey course is recommended (500 level – corresponding to PIBS "core" courses).
- **Level 3.** Graduate-level background has been achieved by the student, such as graduate-level courses or a Bachelor's degree in the area. Courses based on primary literature are recommended.

Students should discuss previous coursework with advisors to determine the appropriate level for each area. It is helpful to provide recent transcripts and syllabi when requesting a more advanced level. Additionally, students should discuss with the mentor whether they should strengthen background in areas critical for their success..

Students are required to earn a grade of B or better in core course work and an overall average of B (3.0 GPA) or better in all coursework.

COURSE SELECTION (continued)

2. ELECTIVES

CMB students are required to take 6 additional elective credits.
It is recommended that the electives be selected to complement the student's research interests and needs. Course offerings change frequently, so students should check the PIBS Curriculum Guide for the most recent listings. View Appendix 3 for some sample plans based on different interest areas.

3. QUANTITATIVE TRAINING

CMB students are required to take 2-3 credit hours of coursework that provides quantitative training.
This requirement can be met by taking, either as an elective or as a CMB core course, in any one of the four general areas indicated in Appendix 2, or any other course approved by the CMB Director.

4. GRANT WRITING

CMB students are required to take Pharmacology 502 (FA term/2 credits) in their 2nd/G1 year. They will need a course permission from Pharmacology before they are able to register for the course.

5. ETHICS TRAINING

Responsible Conduct of Research (RCR/PIBS 503) *(1 credit) – Offered each year*. To be taken in PIBS in first year. Refresher training is required every 4 years (CMB includes it in CMB 850 seminars)

Rigor & Reproducibility (R&R/PIBS 504) *(1 credit – offered each year).* Required for new students.

Refresher Workshops – New 2nd year/G1 students are required to take R&R training in the CMB New Student Workshop Series offered starting in the summer before their 2nd/G1 year. RCR topics are covered each Fall/Winter in CMB 850.

6. CMB COURSES

CMBIOL 850 (Student Seminar/1 credit) – required weekly starting in 2nd/G1 year.

Students will be required to present a seminar in their 2nd/G1 year, and their 4th/G3 years.

3rd/G2-year students will serve as evaluators and facilitate seminars and rehearsals, alongside selected faculty evaluators.

More info about CMBIOL 850 is detailed in the next section.

CMBIOL 630 (Short Course/Adv. Topics in Molecular Biology - 1 credit) – required at least 4 times

Each Fall term, the "short course" is planned and facilitated by the student-run CMB Short Course Committee. Each Winter, the Genetics Training Program (GTP) students plan and facilitate the course. The course is a mini-series of seminars and discussions on a special topic of current interest to students, presented by leaders in the field, who are invited over several weeks.

More info about CMBIOL 630 is detailed in a section coming up.