

## Policies for the Written Comprehensive Examinations for the Doctorate in Biomathematics

### 1. Eligibility to take the Comprehensive Examinations for the Doctorate.

Students are eligible to take the examinations after they have demonstrated prior classroom exposure to the relevant subject matter. They may be enrolled in the doctoral program; or, as enrollees in the master's program, they may be seeking to obtain admission to the doctoral program by way of demonstrating doctoral-level performance on these examinations.

### 2. Timing

For full-time students, these examinations must be first attempted no later than the summer of the second year; the six examinations cover four of Biomath 201, 202, M203, 204, or 210 and two specialty courses. The examinations must be passed by the end of the third summer. Part-time students must take these examinations by the end of three years.

### 3. Scheduling

The examinations will be scheduled in two parts – in early summer for the specialty examinations and in late summer for the core examinations, but no later than 3 weeks before the first day of instruction, Fall Quarter. In consultation with the faculty who will be providing questions for the examinations and the students who will be taking them, the Graduate Advisor will schedule the examinations, announcing this no later than the last week of instruction, Spring Quarter.

Any student sitting for an examination period must take either a minimum of four core examinations or two specialty examinations, unless one or more of these courses were passed previously at the doctoral level and banked.

Reports of examination results are to be available to students before the first day of instruction, Fall Quarter.

Students eligible to take 5 core examinations are advised to choose 4 to take on their first attempt at the examinations. These students should notify the Examination Committee Chair and the Graduate Advisor at least 7 days in advance of the first core examination date as to whether they will be taking all 5 examinations or which 4 they will attempt.

### 4. Format

Six required examinations address subjects taught in 4 of the 5 core Biomathematics classes, 201, 202, M203, 204, 210 and any two distinct specialty areas approved for inclusion. To promote intellectual breadth, passing two examinations in one specialty area does not meet the requirement of passing one

examination in each of two specialty areas; for example, students cannot count examinations in both Biomathematics M207A and M207B as their two specialty examinations. The Graduate Advisor will maintain a list of the specialty areas to which each course is assigned, and there will be a corresponding identification on each specialty examination.

The examinations are separated into subject areas to ensure that the student's competence extends across these areas. Integration of knowledge is valued, and it should be understood that a question in one area may assume knowledge or proficiencies developed in one of the other Biomathematics subject areas represented in the examinations.

Each examination will be designed to be completed within two hours, but an additional hour is allowed for a student to complete the examination. A single examination will be taken within each allotted 3-hour examination period.

There will be two examination periods per examination day. Each examination day will be separated by at least one day from the others. Examinations for Biomathematics 201, 202, M203, 204 and 210 will be scheduled on up to three separate days (when the need arises).

On the day when the specialty examinations are offered, they will be available for inspection 30 minutes before commencement of the morning examination period to students who are prepared to take them. Those students who have more than two specialty courses will select the two examinations that they subsequently will write. Thereafter, one of the two examinations will be taken in each 3-hour examination period. Students required to take only one of the examinations that day will complete it during the morning period.

5. Limit on the Number of Times the Examinations may be Taken

Students are guaranteed one but at most two opportunities to take the examinations. Only exceptional circumstances, such as an unexpected illness, will receive serious attention by the committee that considers a petition for a third attempt (see appeals). All faculty members who have contributed questions to the Written Comprehensive Examinations in which the petitioner participated will be invited to serve on that committee. It is within the authority of this committee to require reexamination on certain or all subjects, or to deny the request.

6. General Requirement for passing the Examinations

For each examination, the faculty members who prepared that examination will read, correct and make an assessment of the student's competence based on the student's performance. For a Doctoral-level pass, the faculty member judges that the student has demonstrated competence that imparts ability in independent research. For a Master's-level pass, the faculty member judges that the student has

a level of competence less than the doctoral level but that still shows sufficient mastery of the fundamental subject matter to warrant an advanced degree.

Students are expected to make every effort to pass the examinations in their entirety on the first attempt because knowledge integration is one of the goals of the review process.

7. The Examination Committee will adopt the following guidelines for students taking the examinations for the first time
  - a. The Examination Committee will consider the results of the student's 4 best core examinations and 2 specialty examinations. Students who have passed 5 of these examinations at the doctoral level and the sixth at either the doctoral or master's level or who have received an A in the relevant sixth course, will be deemed to have passed the Written Comprehensive Examinations at the doctoral level.
  - b. It is within the authority of the Examining Committee to recommend that the student complete prescribed remedial work under the direction of a member of the faculty.
  - c. Students who have passed 3 or more of the examinations at the doctoral level are assured a second opportunity to take the examinations. If a student has demonstrated excellence in some examinations and provided evidence for a serious attempt in all areas, the Examining Committee may decide to exempt the student from retaking one or more of the examinations (s)he passed at the doctoral level (banking).
  - d. The Examining Committee will review the entire academic record of students who have passed 2 or fewer of the six examinations at the doctoral level. It is within the Committee's authority to deny another attempt at the examinations. If a second opportunity is offered, the Committee may require that all examinations be retaken (i.e. banking may be denied).
8. The Examination Committee will adopt the following guidelines for students taking the Examinations for the second time:
  - a. Same as 7.a.
  - b. Same as 7.b.
  - c. Students who fail to achieve (8.a) will be deemed to have failed the Written Comprehensive Examinations at the doctoral level.

9. Notification of Specialty Examination Results

Because the decision to allow a student to continue in the PhD program is a collective decision of the faculty, based on the student's overall academic and research record and promise, results from the specialty examinations will not be provided to students until the Examining Committee has met at the end of summer.

10. Appeals

Students wishing to appeal the decision of the Examining Committee should submit a written petition to the Curriculum Committee and Department Chair.

11. Make-up Examinations

There will be no scheduled make-up exams. Under rare and extreme circumstances (i.e. serious medical illness with medical documentation or death of an immediate family member), a student may reschedule an examination with permission of the faculty. Students are responsible for providing documentation and scheduling with the instructor and the Curriculum Committee. The examination will be rescheduled at the convenience of the instructor. Failure to abide by this process will result in the missed examination being recorded as a fail.

12. Academic Integrity

As with all academic work at UCLA, the student code of conduct is in effect during these exams. Students caught violating the code will fail all exams and may be required to leave the program.