

Applying for Graduate Programs in Biomedical Sciences in the United States of America - A general guide

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I. Preparation for Application

Application Deadlines of Graduate Programs – This should typically be the first step of every perspective applicant. Application Deadlines for doctorate and Master’s programs vary significantly across many Universities. Generally, applications for programs start as early as November and the final deadline can be anywhere between December and March. It is highly recommended to perform a thorough search on the web-page of every program as early as possible. As a rule of the thumb it is recommended to submit a complete application as soon as possible, since many graduate programs offer positions on a “rolling admission” principle (earlier applications are subjected to examination committees earlier and might receive offers for positions much earlier).

Selection of Referees – The selection of the referees is of critical importance. It is recommended to obtain letters from senior faculty in your institution. In particular, letters from Department or Division chairmen / chairwomen, Division chiefs and if possible Deans would present an important asset in any application. Nevertheless, the referee has to be someone who really knows you and who can write a very strong letter of support. Often graduate programs will require you to use a standard form for the recommendation letter, where you will be asked if you would like to waiver your right to see your letter (if admitted). It is recommended to waiver your right, as this is an indication of an objective letter and is generally seen very favorably by many admissions committees.

II. Transcripts and certified copies of degrees

Transcripts and certified copies of your degree are essential items in any academic application. It is advisable to obtain several certified copies of your institution well in advance. If you are attending a Greek University, you would have to provide an official translation of your transcript. If your degree is not awarded to you yet, you should obtain a letter from your institution clearly stating that you have fulfilled your obligations with respect to your degree requirements. This letter should also be officially translated and included in your application package.

An important note regarding transcripts from non-US institutions is that the grading system is different for the one employed in academia in the United States. Frequently, admissions committee members are unable to accurately determine how competitive an international applicant really is, based solely on his/hers transcript. Therefore, it is advantageous if the

applicant could instruct one or several of his/hers referents to clearly state in which percentile with respect to the rest of the class the applicant is placed.

III. Standardized tests and examinations

Standardized tests are probably the most important component of any application, as they provide a means to measure all applicants on the same test. The applicant should aim to achieve as high a score as possible.

a. TOEFL Examination

This examination is required for all graduate programs. This score is the first score the admissions committee will be evaluating. If this score is not adequate, chances are that the committee will not examine any other credentials in the application package and might dismiss the application completely, so any applicant should strive to obtain the highest possible score.

Preparation materials:

Kaplan TOEFL iBT (ISBN: 1419550276). This book by Kaplan is a good overall study guide with adequate sample tests. In addition, the DVD provided with the book is an accurate simulation of the actual exam.

b. TSE Examination

The Test of Spoken English (TSE) is a 20-minute test which measures the candidate's ability to speak English in a variety of professional and academic situations. Unlike many speaking tests, the TSE does not require the presence of an oral examiner. Instead, candidates record their answers onto a tape. The TSE is taken independently from the computer-based TOEFL test. TSE scores are used by many North American institutions of higher education to select international teaching assistants (ITAs). SE scores are also as part of the official selection process for entry into certain professional fields - eg, Health, Science and Education. Although the TSE is not required by any of the programs you might want to apply to, it is a good supplement to your application. Especially given the fact that it is a fairly straightforward examination were typically the applicant achieves high scores.

Preparation materials

[Old sample examinations](#) provided at the ETS TSE web-page

c. GRE Examination

This examination is required for all graduate programs in the United States. Provided the TOEFL scores are adequately high, the decision for admission or no admission to the program will be decided greatly based on the score of this test. Thus, the applicant should devote the majority of his time towards the preparation for this test. Typically, two to three months of preparations are adequate, provided the study aids are covering all necessary areas. The GRE test consists of three sections and here we provide a list of preparation materials for each section based on our previous personal experience.

Preparation materials

1. **Verbal:** *Barron's GRE: Graduate Record Examination (ISBN: 0764179497)*. Superior exercises for vocabulary build-up, however the preparation lacks in the quantitative section, no CD.
2. **Quantitative:** *CliffsNotes Math Review for Standardized Tests (ISBN: 0470500778)*. Good review for mathematics and concepts needed, many exercise tests. *Kaplan GRE Exam Math Workbook (ISBN: 141955221X)*. Excellent review of mathematics, the Kaplan GRE math workbook is a very good book to start with for the quantitative section.
3. **Writing Assessment:** *Ace the GRE Writing Assessment (ISBN: 1402208421)*. This book by Arco represents a great resource with respect to essay writing for the GRE and how to best utilize the time given.
4. **Test simulation:** *GRE: Practicing to Take the General Test 10th Edition (ISBN: 0886852129)*. This is the only book published by the company that is holding the GRE exam (ETS). Although the book consists of a collection of paper-based examinations, it is very close to the actual examination and represents an excellent resource for practicing.

d. GRE Subject Examination

These examinations are generally not required, but recommended, especially if the applicant is considering applying to very competitive programs. There are generally two GRE subject examinations associated with biomedical graduate programs admissions, the GRE biology exam and the GRE biochemistry, cell and molecular biology exam.

i. GRE Biology Exam

This exam covers basic molecular and cellular biology along with ecology, zoology and evolutionary topics. The applicant is encouraged to repeat major concepts of the

undergraduate curriculum relevant to those topics. Preparation for this exam typically runs between one to two months.

Preparation materials

Kaplan GRE Exam Subject Test: Biology (ISBN: 141955218X). This study aid represents a good resource for review of essential concepts, along with practice exams.

ii. GRE, Biochemistry, Cell and Molecular Biology

Probably the most difficult examination of all, this subject GRE will require you to repeat your entire Biochemistry, Cell Biology, Molecular Biology and Genetics curriculum. This test is rarely required by graduate programs, with the exception of the elite graduate programs in ivy-league universities. However, a good score in this examination will reflect very well with any admissions committee. The books recommended here are for review purposes only. The applicant should plan on devoting three to four months on preparation for this examination.

Preparation materials

Outline of Molecular and Cell Biology (ISBN: 0070608989).

Lippincott's Illustrated Reviews: Biochemistry (ISBN: 0781769604).

IV. Statement of Purpose

A good statement of purpose (SOP) is a hallmark of a competitive applicant. Writing the SOP is challenging and is not something the applicant should take lightly. The SOP should clearly state why the particular program to which the application is geared to is the best possible match for the applicant. Customize the SOP to each application and make sure that it is obvious that you have researched the graduate program thoroughly. State your research interests clearly (the more concrete the better) and explain why the particular graduate program is an important stepping stone for your future endeavors. Once you have written the SOP, get feedback from people in your environment and make sure that it is devoid of any typographical errors. Under no circumstances should the applicant consider using SOPs posted on the internet, as this is considered plagiarism and might be reason enough for disqualification of the entire application. The applicant should calculate to devote several weeks to the arduous task of writing the SOP.

V. Application Process

A complete application package consists of:

- 1) Completed application form (on-line or paper based)
- 2) Curriculum vitae
- 3) Three letters of reference (in sealed envelopes)
- 4) Official transcripts
- 5) A copy of the degree (or degrees)
- 6) Statement of Purpose

Note: the examinations (TOEFL, GRE, GRE subject, and TSE) are sent electronically through the agency that carries out the test (ETS). It is important to stress that only complete applications will be considered for admission. The applicant is encouraged to keep copies of all documents submitted. All submitted documents become henceforth property of the university/program and cannot be retrieved by the applicant.

VI. Post-application period

The applicant is encouraged to follow-up upon submission of the application package with respect to whether all supporting materials have been received. Special enquiry should be made for the grades of the standardized tests, as sometimes those are not promptly received by the admissions committee, or are even transmitted to other offices. Generally, e-mails work adequate with admissions offices. However, the best and most efficient means of communication is by telephone.