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Predicting Admission to the Ivory Towers: Grades, Scores, and Other Flowers

Overview of the admissions process and discussion of grades and scores

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Common Requirements for Graduate School Applications

*A graduate application packet is like a basket of cut flowers*

Typical Components of the Floral Basket

• Undergraduate transcripts (GPA)
• GRE Scores
• Publications and relevant experiences list
• Letters of Recommendation
• Description of Research Experiences (Dr. Dolinoy will cover in detail)
• Personal Statement (Dr. Aleksunes will cover in detail)
Typical Admissions Process

1. Prospective student’s completed packet is received (Nov – Dec)
2. Administrative Review by the Graduate School (Dec - Jan)
3. Review by Graduate School Admission Committee (Nov- Jan+)
4. Selection of candidates to invite out for interviews (Dec - April)
5. INTERVIEW (Jan-April) (January Webinar!!!)
6. Applicant Evaluations submitted (Jan - April)
7. Offers made to candidates (Feb - April)
8. Student submits decision to accept offer or not (April - May)
9. Matriculate and Embark upon your PhD training (June – Sept)
Presenting Your Best Basket of Flowers

Prepare early and invest the time to learn
• Take Fundamental Science Classes
  • Org. Chem, Chem, Math, etc) even if not an A
  • GPA of 4.0 is not required, diminishing returns
• Discover your research passion(s)
• Get intensive and diverse research experiences
  ➢ More than 1yr cumulative experience best
  https://www.toxicology.org/careers/if/internships.asp
• Get connected with the labs you work with
• Learn about the institutions you are interested in attending
Advice on Grades and GRE

• Strive for a GPA of ~3.5 or higher, but >3.0 is okay
• Upper-level science coursework is most important
• Upward trajectory can overcome poor initial performance
• Master’s program success can overcome poor undergrad. GPA
• If above threshold GRE scores, may be better off investing in your research experiences than extensive studying to improve your scores.
• If there is a reason for lower grades/GRE include them on personal statement
Example GRE Scores of Admitted Students

**GRE Scores (A)**

**GRE Scores (V)**

**GRE Scores (Q)**

**GRE Scores (V+Q)**
GPA, GRE and Other Flowers Do a Dismal Job at Predicting Graduate School Success Measures

Simulated data set of random numbers (GRE-Q 520 to 800) is surprisingly representative of actual findings published from two graduate programs. Similar results for GPA, faculty interviews, prior research experience

True for many other measures of success: # of 1st author papers, time to graduation, Qual exam success, etc.

First study listed below found letters of recommendation scores correlated positively with # 1st author publications in graduate school.

Second study listed found GRE-Q and GRE-V had moderate predictive power for first semester grades


Administrative and Committee Review

• Representative outcomes (~1400 applicants, ~350 committee review, ~150 interviews offered, ~100 offers made)

• Are there GPA, GRE minimum cut offs?
  • typical ranges of GPA = 2.5 to 4.0; with most above 3.0
  • typical ranges GRE percentile scores = GRE-Q or V (>40%, but most above 60%)
  • Vary widely by school and program
  • School you attended makes a difference in evaluating GPA
  • GPA and GRE scores can make a big difference for some scholarships/bump ups

• Coursework (course requirements, hard sciences, discipline specific classes)

• Research experiences and evidence of productivity

• Evidence to predict success in the graduate coursework

• Letters of reference to gauge your chances of success in grad. school.

• It’s a committee decision
Gaining Admission to the Best Program for You

• Quality/productivity of your research experience(s) (duration, publications, letters)

• Letters of references from your research mentor(s)
  - who should you ask to write letters for you?
  - course instructors, grad students, postdocs, program directors are often weighted lower than letters from mentors of research experiences

• Read the literature in your research area

• Learn about the research hypotheses and data interpretation
Applying to the Right Program for You

• Umbrella or Discipline-Specific Program
• Faculty doing research that suits your intellectual passions
• Funding level of these faculty
• Relevant course work for your training
• Contact admissions offices – don’t take decisions personally
Be Now Who You Want to be Tomorrow
Wishing you success!!!

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https://medschool.vanderbilt.edu/toxicology/

SOT Undergraduate Student Resources
https://www.toxicology.org/groups/ug/affiliates.asp

SOT Graduate Student Resources
https://www.toxicology.org/groups/gs/graduates.asp

Questions via the Q&A function at end of the webinar