



# A Guide to Graduate School Admissions in the Geosciences

*Samuel J. Smidt, Soil and Water Sciences Department, University of Florida, Gainesville, Florida 32611, USA, ssmidt@ufl.edu; and David J. Gates, Department of Geosciences, University of Arkansas, Fayetteville, Arkansas 72701, USA, djgates@email.uark.edu*

## ABSTRACT

While information on pursuing graduate studies is widely available from both web sources and faculty advisers, many prospective students find a lack of organization and consistency in materials. This article seeks to streamline student preparation by providing a guide to graduate program admissions. In addition, we suggest target completion dates and cite open-source material for further documentation. Further, this article helps structure an approach for prospective students while alleviating the demands on faculty by consolidating the advising process.

## INTRODUCTION

Total bachelor's degree graduates in the geosciences have doubled over the past decade, increasing competition for available graduate positions (National Center for Education Statistics, 2017). Here, we seek to equip applicants with an annotated timeline (summarized in Fig. 1) and referenced open-source material for extended information,

as not all students are equally exposed to this process through their home institution. This guide assumes fall enrollment and is designed for prospective graduate students regardless of current academic level.

## TASK 1. GAIN EXPERIENCE

Successful applicants often highlight past experiences viewed favorably by a graduate selection committee, such as independent research, professional employment, abroad studies, external teaching, or even non-traditional activities. There is no recipe for the perfect applicant, but a common thread is personal growth from past experiences. Many find success conducting research with a faculty adviser at a home institution. Other popular options include the National Science Foundation Research Experiences for Undergraduates program or Fulbright Program, which promote research and education with outside institutions and laboratories. *Target date: 1 September of the student's last undergraduate year.*

## TASK 2. DEVELOP A CV

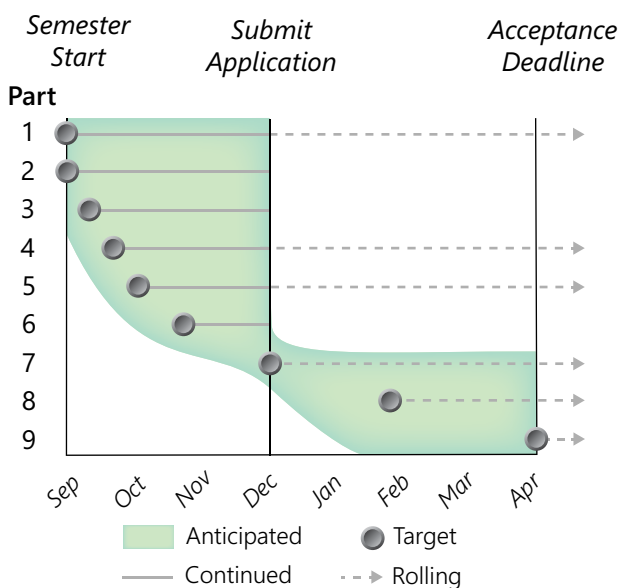
Many professional employers require a résumé, but academia operates with the *curriculum vitae* (CV). In short, a résumé self-promotes skills and attributes, whereas a CV highlights what has been accomplished, and it accumulates accomplishments over time. Critical to the CV at the applicant level are degree and graduation date, relevant coursework and technical knowledge, any research or relevant experience, internships, teaching assistantships, and conference proceedings or publications. Refer to Stark (2015) and Smidt (2018b) for extended details. *Target date: 1 September.*

## TASK 3. TAKE THE GRE

The Graduate Record Examinations (GRE) is currently the required entrance exam for most graduate programs and is an opportunity to cement a strong application. Graduate departments looking to recruit top applicants may offer scholarships and awards using exam scores as a metric for selection. The GRE is measured across all takers regardless of discipline, so scores in the Quantitative and Writing categories may be weighted more with geoscience programs than Verbal Reasoning. Students may also consider a second attempt; attempts must be at least 21 days apart. Note: Some departments do not require, plan to not require, or will waive the GRE. Refer to Educational Testing Service brochure (ETS, 2017) for extended details. *Target date: Early September.*

## TASK 4. IDENTIFY POTENTIAL ADVISERS

Selecting a program based on a specific adviser and faculty can be more valuable than selecting one based on institution name alone, and programs should mirror the applicant's professional goals. Department websites or conference proceedings are great



**Figure 1. Summarized timeline for outlined tasks. Target refers to the date listed here for each task; anticipated refers to a plausible window outside the target; continued refers to ongoing task activity; and rolling refers to programs with rolling deadlines (i.e., no formal deadline).**

places to identify target advisers, and faculty members often have personal websites with details on research and position openings. There are hundreds of graduate programs, each with many faculty members (Wilson, 2017), and prospective students should develop a list of target advisers based on interest. Students can also explore network and adviser connections. *Target date: Late September, although the list will evolve as new connections are made.*

### **TASK 5. CONTACT POTENTIAL ADVISERS**

A contact e-mail is often necessary, as many prospective students have never communicated with a potential adviser. Here, the goals are to succinctly (1) introduce yourself, (2) state the purpose of your inquiry, (3) communicate your overlapping interests and motivation, and (4) establish a secondary conversation. Some advisers may not respond immediately due to busy schedules, travel, or other various reasons; anticipated reply times are about two weeks. Interested faculty will accept a request for a follow-up conversation while others may not be accepting students. If no response is received after two weeks, a polite follow-up email may be sent. Refer to Smidt (2018a) for a template e-mail. *Target date: Late September to mid-October.*

### **TASK 6. NETWORK AT A CONFERENCE**

Attending a professional conference is an efficient way to connect with advisers and graduate students from prospective departments. Students can attend the presentations of prospective advisers and schedule in-person meetings. Department booths are also available in exhibit halls for further information, and prospective students should make their interest known by leaving their contact information with the department sign-in sheet; some advisers may contact students using this list. *Target date: October–December, although abstract deadlines are often several months before the conference.*

### **TASK 7. SUBMIT APPLICATIONS**

Applications typically require five things, in addition to supplemental documents specific to an institution: (1) undergraduate transcripts, (2) GRE scores, (3) recommendation letters, (4) a completed application package, and (5) a statement of purpose (i.e., personal statement). There is often an application fee, transcript request fee, and GRE score request fee. Applicants will also be asked to select M.S. or Ph.D. program consideration (Toké and Arrowsmith, 2009). Applications are evaluated as a package; notable deficiencies should be reconciled in the personal statement. Refer to Maher (2017) for extended details. *Target date: Deadlines are set by the department and may be as early as 1 December.*

### **TASK 8. VISIT CAMPUS**

Throughout the selection process, applicants may be invited for a campus visit. Campus visits help gain insight into department culture and further develop working relationships with prospective advisers. Most visits include conversations with other faculty and graduate students, a campus tour, and extended time with an adviser. Prospective students often find these visits to be one of the most critical deciding factors in selecting their eventual program. *Target date: Early in the spring semester for most institutions.*

### **TASK 9. ACCEPT AN OFFER**

A graduate offer will typically include three things: (1) tuition waver, (2) living stipend, and (3) health insurance. An offer will likely designate a teaching assistantship (TA), research assistantship (RA), or both. Each can provide excellent opportunities, although having time for research is often a main priority for thesis-option students. Once a program has been selected, applicants sign and submit the paperwork. In the case of multiple offers, applicants should notify rejected departments promptly. If self-funded, students may elect to enroll while seeking external scholarships and grants or forgo admission. Refer to Osmond et al. (2015) for extended details. *Target date:*

*15 April for the national acceptance deadline (CGS, 2019).*

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