

# GRADUATE SCHOOL 101

Undergraduate Research Opportunities Center

# Agenda

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1. Choosing the right graduate program
2. The graduate school application package
3. Getting strong Letters of recommendation
4. Finding funding for graduate school

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# 1. Choosing the Right Program

# Activity

## Develop a search strategy

- Define what you want to get out of a graduate degree.
- Create a list of keywords that describe your discipline and interests.

# Degree Alphabet Soup

Deciding which graduate program is your “best fit” requires knowing the purpose of different degrees.

- ▣ What is the difference between a professional degree and a academic degree?
- ▣ What is the difference between a masters and a doctorate?

# A Taxonomy of Graduate Programs

	Professional	Research/Academic
Certificates/Licenses/ Accreditations (varies)	R.N., R.D., C.P.A., P.T.	
Master's Degrees (1-3yrs)	<b>M.A.</b> , M.B.A., M.P.H., P.S.M., LL.M., M.Ed.	<b>M.S.</b> , M.Sc., M.F.A., M.Phil., M.Res.
Doctoral Degrees (3-6yrs)	M.D., D.O., Psy.D., D.V.M., J.D., Ed.D.	<b>Ph.D.</b> , D.Phil., D.Sci.

- Professional degrees focus on coursework and practicum (e.g. internships, group projects, apprenticeships, residencies, etc.)
- Academic degrees focus on independent scholarly work (e.g. a research-based thesis or dissertation)

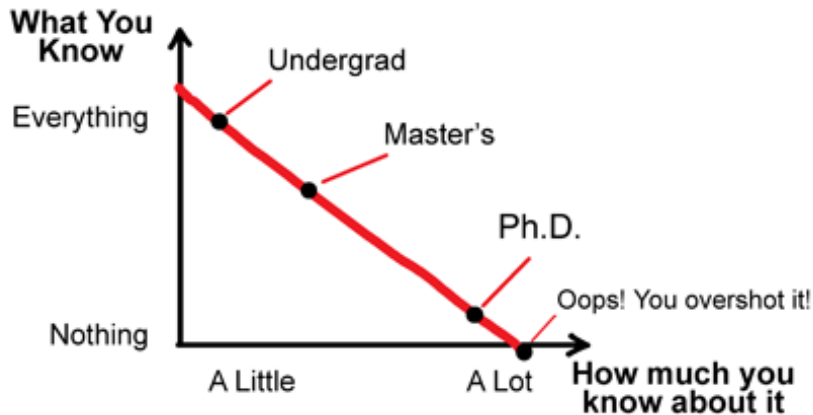
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- Certificate and licensing programs focus on preparing you for a specific accreditation (usually an exam)
- Masters degrees focus on mastering the knowledge within a general discipline to become a practitioner in that field
- Doctoral degrees focus on intensive study within a narrowly focused discipline to become a knowledge expert and leader of the practice

# Master's vs Ph.D.

What You Know vs How much you know about it



"Piled Higher and Deeper" by Jorge Cham  
[www.phdcomics.com](http://www.phdcomics.com)

- Both require specialization in a given field
- A Master's is generally a professional degree aimed at training practitioners
- A Ph.D. is an academic degree aimed at training academics and research leaders
- Both can be research based, however for a Ph.D., *novel* scholarly research is the main focus



# How to Choose a Grad Program

- Do some background research to get started
  - ▣ Build a list of key words for search engines and look online
  - ▣ Identify faculty from journal articles that catch your attention
- Talk to people and gather as much ‘intel’ as possible
  - ▣ Talk to professors in your intended field
  - ▣ Talk to alumni and currently enrolled students
  - ▣ Connect with practicing professionals
- Consider different degree options and don’t limit geographically

# Evaluating Programs

- **Contact the admissions office**
- **Meet with professors**
- **Talk to other students in the program about their experiences**
- Review the course catalogue and ask for syllabuses
- Visit the campus
- Sit in on a class

# Evaluating Advisers

- Talk to your faculty about potential programs *and* *advisors*.
- Take a critical look at the potential advisor's research interests and *recent* publications
- See how many active graduate students are currently in their lab / research group
  - ▣ Look at research programs and funding
- Evaluate for “fit and match”
  - ▣ Consider required coursework, admission requirements, and breadth of research – does the program fit your goals?
  - ▣ Visit the school, talk to potential advisers and current graduate students – does the program feel right?

# Contacting Prospective Advisors

- Introduce yourself concisely, in 1-2 sentences
  - Briefly summarize your qualifications and interest
- Refer to their research, and connect to your previous experience or interests
- Attach CV and cover letter
- End with a straight forward question / request
  - ▣ Ask a specific question about their work
  - ▣ Set up a visit or phone call

Get someone to review your emails and documents.

# Preparing to apply

- Keep organized
  - ▣ Track the requirements and deadlines of programs in a central place
  - ▣ Track your personal statement(s) and requests for letters of recommendation in the same central place

	1	2	3
UNIVERSITY			
PROGRAM			
Program Website			
One-sentence description of the program			
Faculty of Interest'			
Ranking, if known			
GRE Requirments			
Target GPA			
Fellowships or assistantships			
Admissions contact (name, email, phone)			
Application Deadline			
Notes			



## 2. The Application Package

# Graduate Application Package

- Application form
- Statement of purpose or admissions essay
- Curriculum vitae (academic resume)
- Academic transcripts
- GRE or other entrance exam scores
- Letters of recommendation
- Supplemental materials (if applicable)
  - ▣ Writing/work sample or portfolio
  - ▣ Research proposal

# Discussion

**What are reviewers looking for?**

Merit Category	What influences reviewers?
Academic achievements	
Professional experience	
Career goals / program fit	
Broader impacts	
Academic Profile	
Statement of Purpose	
Letters of Recommendation	



# Statement of Purpose

- AKA "personal statement," "letter of intent," "personal narrative," etc.
- Some statements require specific information -- intended area of study, post-grad school plan.
- Carefully address specific prompts and tailor essays to individual programs and schools
- Avoid cliché and simple biographies
- Talk about your experiences and how they lead to your goals.

# Example: UC Berkeley Prompt



Please describe your aptitude and motivation for graduate study in your area of specialization, including your preparation for this field of study, your academic plans or research interests in your chosen area of study, and your future career goals. Please be specific about why UC Berkeley would be a good intellectual fit for you. Make sure to check on the appropriate department admissions web site to find out if your statement should include additional or more specific information.

# Example: UC Davis Prompt

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Please tell us how your personal background informs your decision to pursue a graduate degree. Please include any educational, familial, cultural, economic, or social experiences, challenges, or opportunities relevant to your academic journey; how you might contribute to social or cultural diversity within your chosen field; and/or how you might serve educationally underrepresented segments of society with your degree.

# Statement of Purpose

## General Prompts:

- What are my academic and career goals? What is my purpose and motivation to achieve these goals?
- Why have I chosen this program at this school?
- Why am I an excellent candidate for this program?
- What preparation and personal attributes do I have that demonstrate I will succeed?
- How will I contribute to the program, lab, or institution, and how will I contribute to the discipline?

# Activity

## Brainstorm your personal statement

- What training and experiences have prepared you for graduate school?
- What attributes do you have that will allow you to succeed?
- What motivates you to pursue a graduate degree, and how does the degree relate to your professional goals?

# Curriculum Vitae

- Include *relevant* academic and work experiences, honors, leadership activities, and skills and training
- Sell yourself – highlight content that will impress your audience
- Write active descriptions of experiences focusing on accomplishments and ‘end products’
- Customize your resume or CV for your audience
- Use consistent formatting so that your resume or CV look professional and information is easy to find

# Transcripts

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- Official – sealed envelope
- From *all* colleges attended as an undergraduate
- Check minimum GPA requirements
  - Cumulative
  - Major

# GRE Exams

- General Test – reflects the kind of thinking you'll do in graduate school
  1. Analytical Writing
  2. Quantitative Reasoning
  3. Verbal Reasoning
- Subject GRE (if necessary) – measures your knowledge of a particular field of study



# GRE Exams

- Develop study and practice schedule, and stick to it!
- Test prep books and other resources available in the library and online.
  - ▣ Visit the ETS website
    - [http://www.ets.org/gre/revised\\_general/prepare](http://www.ets.org/gre/revised_general/prepare)
  - ▣ GRE practice tests
    - <http://www.greguide.com/gre-practice-tests.html>
- Consider GRE prep courses (e.g. Kaplan, Princeton Review, Magoosh)
  - ASAP GRE prep course overview workshop



## 3. Letters of Recommendation

# Letters of Recommendation

- Typically at least 3 letters
- Real relationships are key. Develop personal connections with strong letter writers.
- Best graduate school recommendation letters come from:
  - ▣ Someone who knows you well and can comment on your work
  - ▣ Someone who is a professor at the school granting your baccalaureate degree
  - ▣ Someone who has earned the degree which you are seeking in your graduate work
  - ▣ Someone with an advanced degree who has supervised you in a job or internship aligned with the graduate program you are pursuing

# Requesting Letters of Recommendation

- Process:
  - ▣ Build relationships with potential letter writers
  - ▣ Choose letter writers carefully
  - ▣ Provide letter writers ample time
  - ▣ Prepare your letter writers:
    - Provide them with program descriptions, deadlines, and instructions for submitting letters
    - Provide your application materials
    - Provide information you want them to include in the letter
  - ▣ Send reminders and thanks

# Requesting a Letter of Recommendation

- Include the following items with your request (bring copies if you are meeting with your recommender)
  - ▣ List of grad programs, with deadlines and specific instructions for submitting the letter
  - ▣ Resume or CV
  - ▣ Your transcripts
  - ▣ A rough draft of your statement of purpose
  - ▣ A reminder of your work with them (e.g. great sample of work from their course)
  - ▣ List of talking points highlighting elements you wish for them to include in their letter, or details about you that they may not know.
- Follow up (gentle reminder of deadline, etc.), keep them in the loop, and give thanks





## 4. Funding Graduate School

# Funding Graduate School

- Applying for money is part of applying to graduate school; the challenge is that each school does it differently
- Need to find money for
  - ▣ Scholastic Expenses (e.g. tuition and fees)
  - ▣ Personal Expenses (e.g. food and rent)
  - ▣ Research Expenses (e.g. lab equipment and publishing costs)
- Types of funding and support
  - ▣ Tuition waivers (common for Ph.D., but often require assistantship)
  - ▣ Assistantships
  - ▣ Scholarships
  - ▣ Fellowships & Grants
  - ▣ Loans

**DEADLINES ARE  
EARLY!!!**



# Funding Graduate School

- At the graduate level, the terminology changes from “Financial Aid” to “Funding” and “Support”
- Full time Ph.D. students typically receive a tuition waiver, so it doesn't matter if you go in state, out of state, private, public, etc.
- Master's programs vary in terms of funding options
- Expensive schools often provide more funding
- You are considered an independent/adult for financial aid purposes over 24 years old

# Assistantships

- A job or apprenticeship (typically 10-30 hrs/wk)
- Three types:
  - ▣ Research Assistant (RA): work on research project for PI
  - ▣ Teaching Assistant (TA): teach courses or lead discussion sections
  - ▣ Graduate Assistant (GA): clerical, administrative, or technical work
- Note: Each school, department, and faculty member may have a different process for selecting assistantships
- Ask the grad department a month or two before the application deadline: “when and how do you select your RA, TA, and GAs,” and make sure you know how to be considered

# Scholarships, Fellowships, Grants

- Internal vs. external
- Field, discipline, or issue-specific
- Selection criteria
  - ▣ Grades, previous research, demographics, etc.
- Terms of the funding / requirements
  - ▣ Reports, deliverables, additional training, etc.
- Variety of support
  - ▣ Tuition, research costs, and personal expenses

# Partial List of Major Graduate Fellowships

Fellowship	URL	Applicable Fields	Other Criteria
Ford Foundation Predoctoral Diversity Fellowships	<a href="http://sites.nationalacademies.org/pga/fordfellowships/">http://sites.nationalacademies.org/pga/fordfellowships/</a>	ALL	Underrepresented Groups
NSF Graduate Research Fellowship Program (GRFP)	<a href="http://www.nsfgrfp.org/">http://www.nsfgrfp.org/</a>	STEM	
DOD National Defense Science and Engineering Graduate Fellowship (NDSEG)	<a href="http://ndseg.asee.org/">http://ndseg.asee.org/</a>	STEM	
Hertz Foundation Graduate Fellowship	<a href="http://www.hertzfoundation.org/dx/fellowships/fellowshipaward.aspx">http://www.hertzfoundation.org/dx/fellowships/fellowshipaward.aspx</a>	STEM	
DOE Science Graduate Fellowship Program (SCGF)	<a href="http://scgf.orau.gov/index.html">http://scgf.orau.gov/index.html</a>	STEM	
NASA Jenkins Predoctoral Fellowship Program (JFPF)	<a href="http://www.uncfsp.org/jpfp">www.uncfsp.org/jpfp</a>	STEM	Underrepresented Groups
DOD/ASEE Science, Math, & Research for Transformation (SMART)	<a href="http://smart.asee.org/">http://smart.asee.org/</a>	STEM	
DOE Computational Science Graduate Fellowship Program (CSGF)	<a href="http://www.krellinst.org/csgf/about-doe-csgf">http://www.krellinst.org/csgf/about-doe-csgf</a>	Computational approaches to STEM fields	
GEM Fellowship Program	<a href="http://www.gemfellowship.org/">http://www.gemfellowship.org/</a>	Science, Engineering	Underrepresented Groups
National Physical Science Consortium Graduate Fellowship	<a href="http://www.npsc.org/">http://www.npsc.org/</a>	Physical Sci.	
EPA Science to Achieve Results Fellowship Program (STAR)	<a href="http://www.epa.gov/ncer/fellow/">http://www.epa.gov/ncer/fellow/</a>	Environmental Sci.	
NOAA Nancy Foster Scholarship Program	<a href="http://fosterscholars.noaa.gov/welcome.html">http://fosterscholars.noaa.gov/welcome.html</a>	Marine Sci.	
NIH Ruth Kirchstein National Research Service Award (NRSA)	<a href="https://www.nidcd.nih.gov/funding/types/pages/training.aspx">https://www.nidcd.nih.gov/funding/types/pages/training.aspx</a>	Biomedical Sci.	
Howard Hughes Medical Institute Exceptional Research Opportunities Program (EXROP) and Gilliam Fellowship	<a href="http://www.hhmi.org/programs/gilliam-fellowships-for-advanced-study">http://www.hhmi.org/programs/gilliam-fellowships-for-advanced-study</a>	Biomedical Sci.	

Many schools also maintain lists, or visit <http://mcnairscholars.com/funding/>

# Funding Graduate School

- Timing of submitting your applications can affect your ability to receive merit funding – apply early.
- Ask to be nominated for internal fellowships and awards; additional funds may be available.
- File a Free Application for Federal Student Aide (FAFSA) to be considered for work study and federal loans.
- Learn about programs such as the Public Service Loan Forgiveness (PSLF) program, and the Income Based Repayment (IBR) program.

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# Appendix

# Graduate School Timeline

## Juniors

- Present your summer research or internship findings at a professional conference.
- Identify your letter of recommendation writers.
- Identify graduate programs and potential graduate advisors.
- Study for and take standardized tests (GRE, LSAT, etc.) during the summer.
- Conduct research/internship.

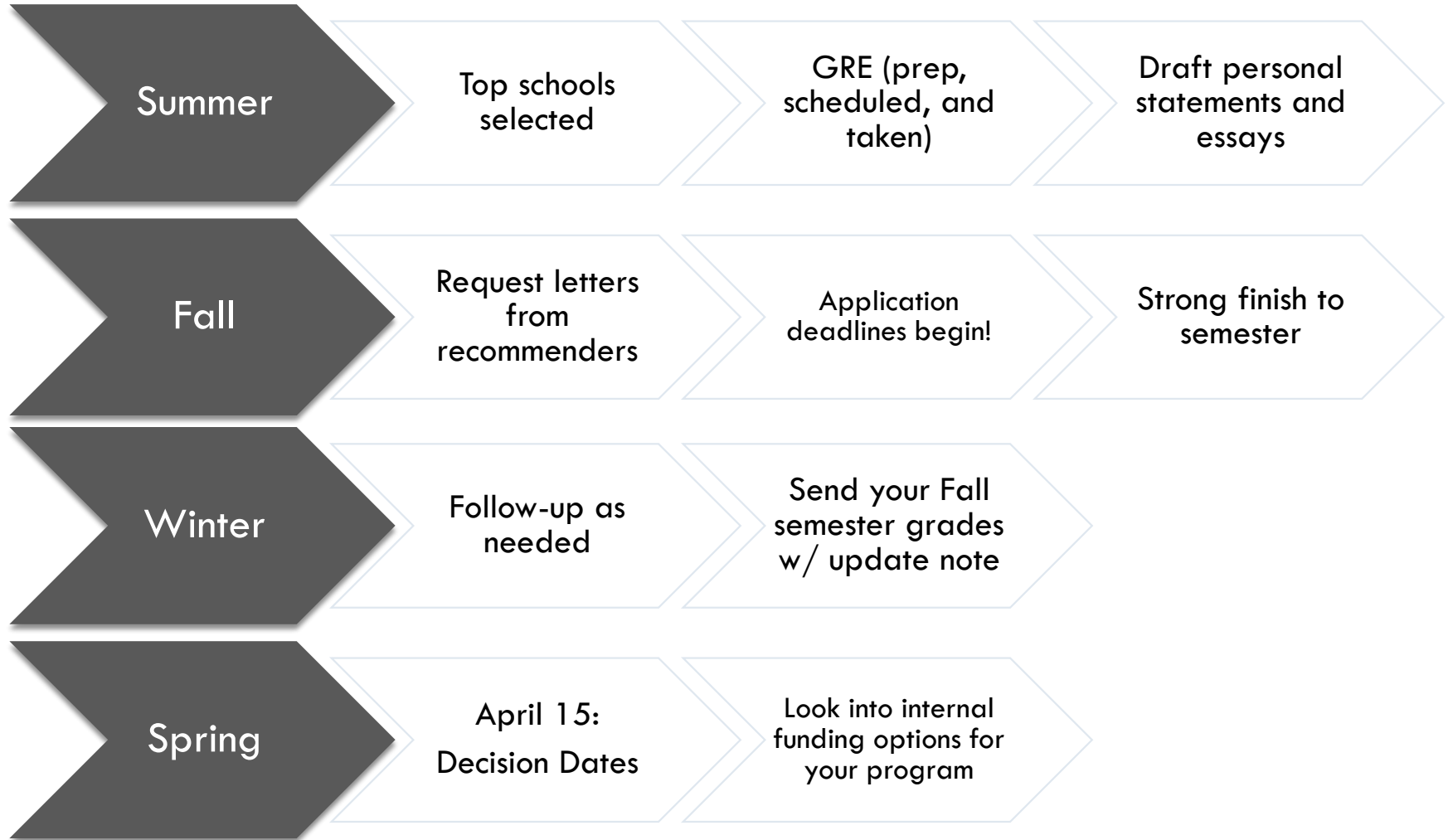
# Graduate School Timeline

## Seniors

- Assemble your graduate and fellowship application packages.
- Contact advisors and graduate programs to establish connections and identify specific program offerings.
- Identify funding such as grants, loans, scholarships and assistantships.
- Request letters of recommendation.



# Grad School Timeline: Graduating Year



\*if you don't get a rejection letter, we did a poor job of selecting your 'top' schools

# Campus Resources

## Professional Development & Grad School Resources

UROC: [csumb.edu/uroc](https://csumb.edu/uroc)

Career Services: [csumb.edu/career](https://csumb.edu/career)

ASAP: [csumb.edu/asap](https://csumb.edu/asap)

## Research & Internship Opportunities

Research Opportunities: [csumb.edu/uroc/finding-research-opportunities](https://csumb.edu/uroc/finding-research-opportunities)

CSUMB Internship Programs: [placements.csumb.edu](https://placements.csumb.edu)

External Internships: [csumb.edu/career/internships](https://csumb.edu/career/internships)

Science Internships: [csumb.edu/sip](https://csumb.edu/sip)