Successfully Launching Your Academic Career

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Civil & Environmental Engineering
University of Illinois at Urbana-Champaign
October 27, 2015
First, a few disclaimers…

1. these are my opinions…

2. there are many ways to be “successful”…

3. my definition of “successful” may not be the same as other people’s…
So far this semester you’ve heard about…

Preparing for Faculty Positions

The Academic Job Search

Successfully Launching Your Academic Career
So you’re considering an academic career…

**teaching?**

[Image of a classroom with students and a teacher]

[Link: www.facultyfocus.com]

**research?**

[Image of a scientist in a lab]

[Link: mecheconnects.mit.edu]
What are your long-term goals?

list out a few goals for yourself… they can be about anything.
Some of my goals:

1. Stay married & raise happy, healthy kids.
Some of my goals:

2. Put my students in a position to be successful in whatever they want to do.
Some of my goals:

3. Increase access to & sustainability of sanitation.
Keep these goals in focus to have a CONSISTENT decision-making framework.

1. Stay married & raise happy, healthy kids.
2. Put my students in a position to be successful in whatever they want to do.
3. Increase access to & sustainability of sanitation.

want to collaborate on X?

can your student work on Z?

can you get this done by tomorrow?

let’s meet at 5:00 PM.

do you want to respond to this funding call?

will you serve on this committee?
Focus on what matters...

**Q1**
- **Strategy:** Just do it
- **Example:** House on Fire

**Q2**
- **Strategy:** Schedule it
- **Example:** Exercise / planning

**Q3**
- **Strategy:** Delegate / Push Back
- **Example:** Someone else’s urgent deadline

**Q4**
- **Strategy:** DON’T do it
- **Example:** Making sure last years files are in the right folders
<table>
<thead>
<tr>
<th>priorities</th>
<th>urgent and important</th>
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<tbody>
<tr>
<td></td>
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**vision**

- Water drop
- Power button
- Corn
- Heart

**funding**

**advice from Assistant Professors**
Guiding question:
What impact do you want to have on the world?

What is your unique contribution that will get you tenure?

What program did you bring to the University?

If someone wants to study/do “X”… they should want to reach out to you.
Give yourself space to think…

What impact do you want to have on the world?

close your office door

go running/biking

sit in coffee shops
We integrate *experimentation, modeling, and quantitative sustainable design (QSD)* for technology development.
Our central goal is to increase access to and the sustainability of sanitation.

create perceived value with technologies that are:

- financially viable
- energy positive
- nutrient recovering
- sustainable

environmental, economic, and social capacity to endure
We integrate experimentation, modeling, and quantitative sustainable design (QSD) for technology development.
The ability to articulate this vision is critical for...

your own decision-making

interactions with colleagues and potential collaborators

recruiting strong, passionate students
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**priorities**

**vision**

**funding**

*advice from Assistant Professors*
How many students would you like to have in your research group?

What does your research group look like?

What kind of research do your students do?

What kind of equipment, materials, services, etc., are required?
Student costs…

- RA Salary
- RA Tuition
- Benefits
- Social Security without Medicare
- SURS Retirement Benefit
- Medicare Matching
- Employer Paid Health/Life Insurance
- Grad Health
- Workers Compensation
- Termination Sick Leave Other

- Equipment
- Materials & Supplies
- Travel (flights, meals, etc.)
- Facilities & Admin (indirect costs)
<table>
<thead>
<tr>
<th>A. Senior Personnel</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>All Years</th>
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<tbody>
<tr>
<td>Assistant Professor XXXXX</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00 mos.</td>
<td>-</td>
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<table>
<thead>
<tr>
<th>B. Other Personnel</th>
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<tbody>
<tr>
<td>Post Doctoral Research Associate</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0 mos.</td>
<td>-</td>
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<tr>
<td>Research Assistant - Post BS</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0 mos.</td>
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<tr>
<td>Research Assistant - Post MS</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0 mos.</td>
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<tr>
<td>Research Assistant - Post Prelim</td>
<td>11.0</td>
<td>0.0</td>
<td>0.0 mos.</td>
<td>26,761</td>
<td>-</td>
<td>-</td>
<td>26,761</td>
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<tr>
<td>Hourly</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0 hours</td>
<td>-</td>
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Total Salary and Wages               | 26,761 | -      | -      | 26,761 |

<table>
<thead>
<tr>
<th>C. Fringe</th>
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<tbody>
<tr>
<td>Academic 39.14%, RA 6.19%, Hourly 7.8%</td>
<td>1,657</td>
<td>-</td>
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Total Personnel                      | 28,418 | -      | -      | 28,418 |

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<thead>
<tr>
<th>D. Equipment</th>
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<td>E. Travel</td>
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<tr>
<td>Domestic</td>
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<td>Foreign</td>
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<tr>
<th>G. Other Direct Costs</th>
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<tbody>
<tr>
<td>Materials and Supplies</td>
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<td>-</td>
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<td>Publications</td>
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<tr>
<td>Services</td>
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<tr>
<td>Sub Contract</td>
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</tr>
<tr>
<td>Tuition – 64% of RA Salary</td>
<td>17,127</td>
<td>-</td>
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<td>-</td>
<td>17,127</td>
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Total Other Direct Costs             | 17,127 | -      | -      | 17,127 |

Total Direct Costs                   | 45,545 | -      | -      | 45,545 |

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<thead>
<tr>
<th>H. Indirect Costs</th>
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<tr>
<td>Facilities and Admin. 58.6% of UIUC TDC less tuition and equipment</td>
<td>16,653</td>
<td>-</td>
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<td>16,653</td>
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Total Project Cost                   | $ 62,198 | $ - | $ - | $ 62,198 |
How many students would you like to have in your research group?

assume roughly $60-80K per student per year

plus ~$5-15K in materials, supplies, travel, etc., per student per year

so...based on the number of students you plan to have in your group, how much do you need to bring in per year?
Some suggestions:

- identify sources of funding
- sit on review panels & meet program managers
- ask colleagues for examples & collaborate with successful colleagues
- submit QUALITY proposals
- listen to feedback from reviewers and colleagues
  *don’t fall in love with your own work*
- submit to a diversity of funding levels, but keep your core area in focus
priorities

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vision

funding

advice from Assistant Professors
Advice from Assistant Professors...

sit on proposal review panels

quality not quantity

Prioritize your time to align with your goals, and allocate sufficient time to the important tasks.

There is no single grading rubric for faculty hiring so you don't need to try to change yourself and fit into a certain form. Once you join the faculty, you add your own voice, that is valuable because it's different from the others.
Advice from Assistant Professors…

the importance of forming a big research group right from the beginning and quickly learning how to delegate research tasks.

“Give it 3 years.” Don’t expect to have it all figured out right away…expect soul searching…don’t expect to immediately have a sense of identify.

Try to find good students to start with you, but don't take students just for the sake of it! A bad student is worse than no student.
Advice from Assistant Professors…

make mistakes quickly

take risks, learn by doing. Don't be too caught up on hiring the perfect student, writing the perfect proposal, giving the best lecture, etc, if it prevents you from hiring your first student, sending your first proposal, or writing your first lecture. You don't want to be making first year mistakes in your second year of the job. Time is a luxury you don't have.

Specific example. NSF CAREER. Was very difficult (read impossible) to get any feedback from program managers about proposals that I was planning to write. I couldn't get on any NSF panels, I couldn't get any meeting time, etc. After I submitted my first proposal (CAREER, not funded, filled with "first time writing a proposal" mistakes even though I attended the how to write a winning NSF proposal meetings) the program manager gave me feedback, invited me to serve on panels, etc., and funded my significantly improved proposal the second round. I learned a lot from the "failed" proposal; it would have been impossible to write a winning proposal without the feedback I received.
Additional advice from me...

Set your priorities and stick to them (e.g., family, students, core research area, etc.)

Say “no” to things that aren’t aligned with your priorities

If you have a family, go home at 5.

Exercise.

If you want 2 students, make 6 offers.

Treat your students right…

If you only want to spend 1 hour on something… only give yourself 1 hour to do it.
priorities

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