The Academic Career Expectations & Resources (New Faculty 101)

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Dr. Christine Kelly

College of Engineering
Oregon State University
Welcome!

- We’re so glad you’re here!
- Let’s do a quick round of introductions of everyone
  - Name
  - Program you’re affiliated with
  - Where you were most recently
What’s today all about?

- What is expected from you?
- What should you expect/do?
- How can you achieve longterm success?
- What CoE resources are available to you to succeed?
Typical Workload Model

- 40% Research
- 50% Teaching
- 10% Service
Actual (Perceived?) Workload

- 100% Research!
- 75% Teaching!
- 25% Service!
What’s in an academic job?

- Major aspects you must excel in:
  - Funding
  - Publishing
  - Marketing
  - Networking
  - Graduate student mentoring
  - Teaching
  - Service
How to Succeed?

- Think of it as running your own company:
  - Take full responsibility for fund-raising, recruiting, hiring, accounting, publishing, research
  - Be very organized!
- Key pointers for success in research, teaching, service:
  - NEXT...
Know your funding sources

- Diversify: many sources exist...
  - NSF
  - CAREER, REU supplements, etc.
  - DoD (DARPA, AFOSR, etc.), DOE, DOC
  - NASA, NIH, USDA, etc.
  - Industry
- Engage program managers; send in quad charts/white papers; serve on review panels; visit industry
CoE Funding Sources

FY 13 Awards - College of Engineering

Total FY13 Awards: $31,009,614

- National Science Foundation: 28%
- DOD Agencies: 11%
- Energy: 30%
- Agriculture: 6%
- Commerce: 0%
- NASA: 1%
- Labor: 0%
- ONAMI: 1%
- BEST: 3%
- State Agencies: 1%
- Non-profits: 5%
- Transportation: 6%
- Industry: 3%
- NIH: 2%
- Nuclear Regulatory Commission: 3%
CoE Funding Trends

COE Sponsored Research

<table>
<thead>
<tr>
<th>Unit Research</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
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<tbody>
<tr>
<td>CBEE</td>
<td>2,405,992</td>
<td>2,187,748</td>
<td>3,751,339</td>
<td>3,347,245</td>
<td>4,488,935</td>
<td>5,806,790</td>
<td>5,961,948</td>
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<td>CCE</td>
<td>4,328,748</td>
<td>3,999,862</td>
<td>5,508,767</td>
<td>4,838,155</td>
<td>5,073,959</td>
<td>5,807,078</td>
<td>6,408,017</td>
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<td>EECS</td>
<td>6,889,680</td>
<td>6,791,049</td>
<td>8,324,043</td>
<td>9,724,926</td>
<td>8,640,078</td>
<td>8,579,589</td>
<td>8,392,985</td>
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<td>MIME</td>
<td>3,472,349</td>
<td>3,064,089</td>
<td>5,430,378</td>
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<td>7,402,037</td>
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<td>NERHP</td>
<td>1,534,796</td>
<td>2,797,199</td>
<td>3,762,821</td>
<td>3,640,126</td>
<td>4,779,544</td>
<td>6,091,989</td>
<td>3,347,897</td>
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<tr>
<td>COE</td>
<td>625,792</td>
<td>80,051</td>
<td>448,057</td>
<td>714,524</td>
<td>810,143</td>
<td>330,006</td>
<td>183,322</td>
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</table>
Know where to look for funding opportunities

- Signup for the ORD ListServ at the OSU Research Development Office for limited submission opportunities
- For specific opportunities, regularly check Grants.gov or FedBizOpps.gov
- Sign up for ITECS Consulting, k NIST, NSF, etc. weekly newsletters
- Look for funding opportunities from private foundations on the Office of Foundation Services website
OSU proposal process

- SRO proposal approval and submittal process can be tedious
  - Cayuse & budget approval--5 days
  - Budget preparation can be tricky
  - Use the Preaward services in the Research Office (templates, justifications, rates, etc.)
  - Budget impacts the scope of the work you can deliver (ex: 1 Grad student for 12 months and 1 month of PI salary can be ~ $100K/year)
- GOALIs/industry PIA/NDA requirements need OCCD approval
- Collaborative research coordination can be tricky
Publish in Top Journals

- Where you publish is important when it comes to external letters for promotion
- Find the respected journals in your field
  - Impact number, # of citations, peer opinion
- Consider writing papers a major part of your job!
  - Engage grad students as early as possible!
- Start collaborations with peers!
Get your name out!

- Use your travel funds fully to network:
  - Know the good conferences in your field
  - Serve as reviewer and review coordinator
  - Participate in technical committee meetings
- Engage your peers as well as senior faculty
- Bring along as many students as you can afford!
- Visit other universities and give talks
- Start collaborations within your university
- Don’t forget to socialize with COE faculty! :)
Mentor Graduate Students

- Make a commitment!
  - Major investment in time: 1-on-1 and group meetings
  - Major risk of not producing results, hindering progress
  - High potential reward; don’t forget the educational aspect!
- Start students writing papers early!
- Be active in recruiting internally and externally!
- Engage good juniors/seniors early as URAs/REUs
- Be prepared to deal with non-performing students/ and to fire them if needed
Survive the Classroom

- Be firm, straight, consistent, and fair with students
- Pay attention to feedback from student evaluations but don’t let negative evaluations bring you down!
- Negotiate with your School to repeat courses if possible
- Courses related to your research are great for presenting new research ideas & recruiting students
- Look for teaching effectiveness workshops (ASEE, National Effective Teaching Institute, Center for Teaching and Learning at OSU, etc.)
Everything else...

- **First 5 years:**
  - External service is very critical
  - Avoid heavy workload internal service
  - Don’t accept every OSU GCR invite!
- **After tenure:**
  - Conference chairing, journal editorship
  - Pick big impact internal service options and things you really care about!
Forming your Mentoring Network

Mentors:

TOM, MENTORING IS ABOUT MORE THAN ENCOURAGING PEOPLE TO BE JUST LIKE YOU!
Mentoring Model

You (New Faculty)

Expert (Successful researcher)

Administrators

Peer group

Emotional support or Work/Life balance
What’s the Point?

- Connect you (the new faculty) with mentors and key personnel across your unit and COE in order to set you up for success
- Start a handbook of resources to support you
- Workshops to develop your network
"Keep this to yourself, Henderson, this will fund our research for the next ten years!"
Research Mechanics

Idea/Motivation

Funded project
Research Mechanics (2)

Idea/Motivation

Budget preparation: COE pre-award

Draft of proposal

Cayuse certification

Submission

Sponsored Programs Office approval

Waiting/reviews (work on another proposal)

Revise/resubmit

Funded project

$3 (e.g., NSF)
Some Guidance

- Research metrics are always a moving target
  - Journals: 2-4/year
  - Conference publications: 4-6/year (treat these as a pipeline to journal publications*)
  - Expenditures: $400,000/year (two year average by tenure time)
  - Minimum of $100,000/year to avoid additional teaching load
  - Expenditures do vary by discipline – key point is that there is visible production for expenditures (i.e., Ph.D., MS students completed, publications, invited talks, etc.)
Some Guidance (2)

- You can’t win if you don’t play...
  - Proposal submissions
    - You need to be submitting about 10 proposals a year (at a minimum)
    - Quality is as (perhaps more) important as the quantity
  - Cast a wide net – go for federal/state agencies and industry opportunities
  - The OSU Foundation can run research projects through it (when they can be considered a gift) - benefit is lower overhead of only 5%
Some Guidance (3)

- Be resilient...
- You will have rejections, but learn from them, revise and resubmit (proposal, papers, everything...)
- Ask your colleagues to review everything
  - That’s the idea of your mentor network
  - But you’re not limited to one mentor – use anyone who has the necessary expertise
- Accept constructive feedback (from head, mentors, review committees) – we really want you to succeed
More Guidance…

- Publish with your students
- Always have 3 papers out for review at any given time
- Review papers for the journals to which you submit ... editors do keep track of this
- Write thorough reviews
- Should review 2 papers for every one you submit
- On the flip side, it’s OK to say “No” when you feel overwhelmed
New Faculty 101 Workshops

- Proposal writing basics
- Proposal best practices
- Full proposal review panel
- Federal agencies: DoD, NIH, NSF, etc.
- NSF CAREER
- Mentoring, time management, writing
- Industry relations & commercialization
- Foundation funding opportunities
- Outreach
- STEM learning, assessment, accreditation
CoE Preaward Services

- **Teresa Culver**
  - Grants & Contracts Coordinator
  - 541.737.6524
  - teresa.culver@oregonstate.edu

- **Stephanie Tyrer**
  - Grants & Contracts Coordinator
  - 541.737.6525
  - stephanie.tyrer@oregonstate.edu
CoE Pre-award Services

Who Are We?
• We offer A – Z experience in grants and contracts
  • Pre-award development
  • Post-award administration
  • Research / grant project

What We Do:
• Prepare budget/budget justifications
• Support / initiate Cayuse SP, 424, Fastlane records, and other sponsor forms
• Track and review proposal requirements prior to submission
• Liaison between PI and:
  • Sponsored Program Office
  • Collaborators
  • Subcontractors
  • Business and Engineering Business Center (BEBC)
  • Post Award / Grant Accountants
• Train
How to Request Our Services…

**Senior Personnel**

- Lead PI
- Co-PI
- Co-PI
- Co-PI

**Other Personnel**

- Hourly Student Worker(s)
- Hourly Graduate Student(s)
- GRA Summer
- GRA Academic Year
- Post Doctoral Scholar
- Research Associate (Post Doc)

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**Participant Support Costs**

Do you anticipate participant support costs? If yes, your Grant Coordinator will contact you to discuss further.

- Yes
- No

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**Other Direct Costs**

<table>
<thead>
<tr>
<th></th>
<th>Total Costs for Life of Project</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Material and Supplies</td>
<td></td>
<td></td>
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<tr>
<td>Publications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultants</td>
<td></td>
<td></td>
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<tr>
<td>Computer (ADPE)</td>
<td></td>
<td></td>
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<tr>
<td>Services</td>
<td></td>
<td></td>
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<tr>
<td>Subcontracts</td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
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<tr>
<td>Other</td>
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<td>Other</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

If there is anything else you want the Grant Coordinators to know about your proposal preparation, please feel free to comment below.
What happens with your request...

1. Confirmation of request sent to PI with assignment of proposal to grant coordinator.
2. Grant coordinator reviews request and announcement.
3. Coordinator emails PI draft budget with additional information.
4. Collaboration process begins with PI, SPO, Subcontractors, etc.
5. Submit for review and approval via Cayuse. Then submit to sponsor.
COE Student Services and more Resources

- Advising
- HUB
- Women and Minorities
- International programs
- Leadership Academy
- Academic Conduct
- Outreach
Head Advisor –
Brett Jeter

- Leads first-year advisors
- Coordinates college wide policies and oversees implementation
- Liaison to University advising community
- Liaison to Community Colleges for transfer students
- Coordinates communication and consistency with COE advisors
COE HUB – Nova Schauss

- Resources for students
  - Study tables
  - Academic coaching
  - Workshops/seminars
- Resources for faculty
  - Learning Assistant Training
  - TA tables/advertising
Women and Minorities - Ellen Momsen

- Director of Women and Minorities in Engineering
- Implements programming to recruit and retain underrepresented population
- Coordinates/funds undergraduate research for underrepresented populations
- Resources for broader impact programming in NSF proposals
International Programs - Caine Francis

- Coordinator for study abroad by engineering students
- Assists international students and coordinates with INTO OSU
- Resources for faculty interested in international programs/relationships involving students
Leadership Academy - Scott Paja

- Developing a certificate type leadership program for engineering students
- Industry driven and delivered
- Co-curricular (Non-credit)
- Initial grand opening summit on Saturday. 130 students registered + waitlist
- Leads/coordinates engineering student clubs
Academic Conduct - Christine Kelly

- Processes academic dishonesty cases in COE classes
- Resource for faculty regarding questions relating to academic dishonesty
- Coordinates communication with Office of Student Conduct
Outreach - Skip Rochefort

- CBEE faculty/Director of PreCollege Programs
- Administers multiple outreach and engagement activities/programs for PreCollege students
- Resource for broader impact programing in NSF proposals
  - Contact Skip for NSF CAREER proposals’ education and outreach component!
New Faculty Must-Dos

- Request (and work with) a network of mentors
- Listen to feedback and advice from your school head! They have a vested interest in your success
- Take advantage of preaward services!
- Attend the New Faculty 101 workshops!
- Work with your area leads to pick the right courses
- Take on graduate students/PhDs preferably
- Get to know your program managers
- Serve on an NSF panel
- Visit industry (summers in industry/national labs?)
- Write write write!
The Long View....

- If you learn to do the following well...
  - People management
  - Stress management
  - Time management
  - Budget management

- You will enjoy the unique benefits of academia!
  - Flexibility to work when and where you want
  - Freedom to work on what you want
  - Pleasure of lifetime mentoring
Don’t forget the humor!

Piled Higher and Deeper by Jorge Cham

HOW PROFESSORS SPEND THEIR TIME

How they actually spend their time:
- Teaching 59%
- Research 18%
- Service 23%

How departments expect them to spend their time:
- Teaching 20%
- Research 175%
- “Service” 20%

How Professors would like to spend their time:
- Don’t tell me what to do

Source: Higher Education Research Institute Survey (1999)

WWW.PHDCOMICS.COM

title: "How Professors spend their time" - originally published 8/25/2008
For Inquiries:

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