

Future Faculty Program
ENES601
Spring 2019

Class times: Thursdays 3:30 – 4:45 p.m. ATL 2316

Discussion coordinator: Prof. Thomas Antonsen

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https://terpconnect.umd.edu/~antonsen/ENES601_S19/

Course Description

Introduction to and development of skills necessary to obtain and succeed in a university faculty position. Emphasis on technical writing and effective presentations. Discussion of research diversification, networking, ethics and professionalism.

The course will consist of a mixture of seminars by faculty members, group discussions, writing assignments and a group project.

Grading will be pass/fail

Discussion Topics

Getting started

- Picking a dissertation topic – advisor
- Making presentations
- Learning technical writing
- Applying for faculty positions
- Preparing research statements
- Visits and Interview

Accepting an offer and negotiating

- Start-up funds
- Teaching load
- Salary (not just how much but from what sources)
- Promotion schedule

The first 4 years & Getting Promoted

- Balancing - Teaching/Research/Service
- Balancing - Life/Work

- Recruiting graduate students
- Classroom teaching – course preparation
- Dealing with colleagues
- Dealing with students
- How and when to say no.
- Ethics and legal responsibilities
- Getting grants
 - Individual PI (Principal Investigator)
 - Team grants (e.g.MURI, Multiple University Research Initiatives)
- Establishing a scientific reputation
 - Publications
 - Meetings – invited talks
 - “Community” service

Texts: There is no required text. However, I found the following to be an easy read, and full of good advice.

“What They Didn’t Teach You in Graduate School: 199 Helpful Hints for Success in Your Academic Career” by Paul Gray and David E. Drew, Stylus Publishing, Sterling VA 2008. ISBN: 978-1-57922-264-2.

There are a number of other texts on the subject, including the list below.

R.M. Reis, Tomorrow’s Professor: Preparing for Academic Careers in Science and Engineering, IEEE Press, 1997.
C.J. Lucas and J.W. Murray, New faculty: A Practical Guide for Academic Beginners, Palgrave Macmillan, 2002.
R. Boice, Professors as Writers, A Self-Help Guide to Productive Writing, New Forums Press, 1990.
S.M. Cahn, From Student to Professor, Columbia University Press, 2008.
J.M. Vick and J.S. Furlong, The Academic Job Search Handbook, 4th edn., Univ. of Pennsylvania Press, 2008.
J.A. Goldsmith, J. Komlos and P.S. Gold, The Chicago Guide to Your Academic Career, The University of Chicago Press, 2001.
A. L. Deneef and C.D. Goodwin, The Academic Handbook, 3rd edn., Duke University Press, 2007.

Tentative schedule

01/31 Professor M. Girvan: “What I know now that I wish I knew then”

02/07 TMA: “Starting on a Path to a faculty position - what is important?”

ENES 601 Assignment 1: Assignment for Thursday, 21 February 2019

Deadline for submission: This assignment should be turned in at the beginning of the class.

Philip DeShong, Department of Chemistry & Biochemistry

As a “professional” one typically joins a professional society, or even multiple professional societies. Every professional organization has a Code of Conduct.

Your assignment is:

- 1) Download and print out the Code of Conduct for an appropriate professional society based your major or professional aspirations. For a chemist-biochemist this might be the Amer. Chemical Society, the Amer. Phys. Society, FASEB, or the Biophysical Society.
- 2) Make a list of 5 key bulletpoints of major “expectations” taken from the downloaded code of conduct. Write a sentence or two about why each point is important in a professional setting.

2/14 Professor Thomas Murphy: “Putting your best .pptx forward”

2/21 Professor Philip DeShong: “Professionalism: There is More than Research”

ENES 601 Assignment 2: Assignment for Thursday, 7 March 2019

Deadline for submission: This assignment should be turned in at the beginning of the class.

Pick out a conference in your field of research. Prepare an abstract that you would submit to the conference organizers. Many, but not all, conferences require submission of a one-page abstract describing what will be presented. Some require longer papers, some require only 250 word abstracts. Assume that what is required is a one page abstract,

2/28 TMA: “Technical writing: Compare with vs compare to, and so much more”

3/7 Go over abstracts in class – Applying/interviewing for jobs

3/14 Applying for Research grants

3/28 Dana Dachman-Soled, Kevin Daniels - Experiences of Assistant Professors

Project: The students will be divided into groups of 2 or 3. Each group will prepare a research proposal to one of the following funding agencies. NSF CAREER program, ONR, ARO, AFOSR, NIH, DHS, DARPA, NASA and NIH. You will visit the websites of these funding agencies, look at the instructions for preparation of proposals, come up with ideas for your proposals and prepare a full-fledged proposal. Each group will give a 15 minute presentation on May 2nd or 9th. The class will vote whether the proposals should be funded or not.

4/4 Professor Inderjit Chopra: “Participating in Large Center, MURI Proposals”

4/11 Vyacheslav Lukin: “What you need to know about the NSF”

4/18 Professor A. Gupta “New teaching methods + Life of research scientists”

4/25 Professor Mohammad Hafizi: - “Experiences of Associate Professors”

5/2 Presentations

5/9 Presentations