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.


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

S.M. Cahn, From Student to Professor, Columbia University Press, 2008.

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 2\textsuperscript{nd} or 9\textsuperscript{th}. 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