



Course Objectives / Overview

Upon leaving graduate school and entering the “real world” many former students realize that they received excellent training in some areas of being a scientist (e.g. conducting research, analyzing data, writing manuscripts and proposals, giving talks at conferences, and even communicating with broader audiences), but not in others (e.g. interpersonal skills, managing a project). This course will address some of these what-they-never-taught-me-in-graduate-school-about-being-a-scientist issues, such as hiring and managing people, creating a culture that supports the research, and communication. Kathy Barker’s 2010 book entitled “At the Helm: Leading Your Laboratory” will be used to guide in-class discussions. This class will also provide an overview of other often-overlooked topics, such as creating proposal budgets and managing a project. Additional class sessions will be allotted for other related topics that students wish to discuss. Outside scientists working in a diversity of sectors will be invited to participate in class sessions to provide perspective on skills that are critical in their jobs on a day-to-day basis. The goal is to provide students with training in often overlooked skills that are nevertheless critical to everyday life as a scientist, whether in academia, government, or private sectors.

Learning Outcomes

1. Students will be able to describe the elements of a “good” lab.
2. Students will develop skills for hiring employees, as well as managing and interacting with people.
3. Students will be equipped to inspire and motivate their employees.
4. Students will be able to create a proposal budget and budget justification.
5. Students will learn approaches for managing a project and budget.

Assessment of Learning Outcomes/Course Grading

Students will be assigned to (co)lead discussion of the 9 chapters of Barker’s book. This will count for 25% of the grade.

Students are expected to actively participate in the discussion each week and prepare a 1/2 page summary of the readings for that week, including addressing specific questions that the instructors posed for each reading. This will count for 50% of the grade. Students will design a mock budget and budget justification for a proposal (25% of the grade).

INSTRUCTOR DETAILS:

David Nelson

dnelson@umces.edu

301-689-7171

Hali Kilbourne

kilbourn@umces.edu

410-326-7205

CLASS MEETING DETAILS:

Days: TBD

Times: TBD

Originating Site: AL and CBL

IVN bridge number:

(*****)

Phone call in number:

(***)

Room phone number:

(*****)

CURRICULUM FULLFILMENT:

Check all that apply

Foundation

Professional Development

Issue Study Group

Seminar

Elective

Prerequisites

N/A

Teaching Assistant

N/A

Detailed Weekly Course Schedule

The format of this section will vary based on the design of your course and the semester, but our guidance is to aim for a clear and concise table that maps out all of the assignment assessments and deadlines and gives students a sense of the course's organization.

Week #	Class #	Topic	Lecturer
1	1	Introduction	
2	2	Discussion of Barker 2010 chapter 1, "Know what you want"	
3	3	Discussion of Barker 2010 chapter 2, "You as a leader"	
4	4	Discussion of Barker 2010 chapter 3, "Choose your people"	
5	5	Discussion of Barker 2010 chapter 4, "Starting and keeping new lab members"	
6	6	Discussion of Barker 2010 chapter 5, "Make research the foundation"	
7	7	Discussion of Barker 2010 chapter 6, "Organizing the lab to support the research"	
8	8	Discussion of Barker 2010 chapter 7, "Communication as the glue"	
9	9	Discussion of Barker 2010 chapter 8, "Dealing with a group"	
10	10	Discussion of Barker 2010 chapter 9, "For the long run"	
11	11	Developing a proposal budget and budget justification	
12	12	Managing a project and budget	
13	13	Discussion of topics that students identify	
14	14	Discussion of topics that students identify	
15	15	Discussion of topics that students identify	
		<i>READING DAY</i>	
		<i>FINAL EXAMS</i>	

Note: This is a tentative schedule, and subject to change as necessary.

Course Communication

Class announcements will be made via email. Students should submit class assignments using a Google Drive created for the class. There are no official office hours for the class; instead, students should contact the instructors by email or phone to discuss questions or other information.

Resources

Kathy Barker. 2010. At the Helm: Leading your Laboratory. Available at <https://www.amazon.com/At-Helm-Leading-Laboratory-Second/dp/0879698667>.

Campus Policies

The University of Maryland Center for Environmental Science has drafted and approved of various academic and research-related policies by which all students and faculty must abide.

Please visit <http://www.umces.edu/consolidated-usm-and-umces-policies-and-procedures> for a full list of campus-wide academic policies.

Course-Specific Policies and Expectations

A large portion of each student's grade in this course involves participation in, and leading of, discussions. Therefore, lack of attendance will negatively impact a student's grade. Per University policy (testudo.umd.edu/soc/atedasse.html) students will not be penalized for excused absences due to illness, religious observance, participation in University activities at the request of University authorities, or compelling circumstances beyond the student's control. Students claiming excused absence must apply in writing and furnish documentary support for their assertion that absence resulted from one of these causes. The student must notify the instructors of the reason for absence as soon as possible. Materials may be submitted up to one day late for a 50% reduction in credit. Material submitted beyond one day late will not receive credit.