Math M298 Careers in Mathematics
Spring 2015
1 credit

Meeting Times: Fridays (maybe Thursdays, depending on room) 75 minutes
Room: ???
Instructors: Kevin M. Pilgrim, DUS, Mathematics

Course Purpose: The purpose of this one-credit course is to inform mathematics majors, mostly sophomores and juniors, how their undergraduate curriculum is relevant to the development of a successful career path. This is a complex task: mathematics BA majors, for example, are required to take at least 29 credits of mathematics courses and must satisfy a variety of College distribution requirements. Perspectives from the Career Center, from alumni, and from faculty can help students understand and develop marketable and flexible skills.

How these curricular decisions influence career choices and help determine success after graduation is an issue that is not currently addressed in the context of a formal class offering. The purpose of this course is to fill this gap. In particular, the course will help students identify what careers paths might best suit their interests, their strengths, and their personalities.

The course will focus on the following issues:
1. Identify the wide variety of careers in which mathematics majors can find satisfying employment
2. Discuss how course selection relates to employment possibilities in particular fields
3. Discuss how activities outside of the classroom can help prepare students for their desired careers
4. Identify the resources available on and off campus that can help with career selection, job placement and career advancement
5. Identification of at least one specific topic from the undergraduate mathematics curriculum with relevance for a career of interest to the student ("curriculum link").

Course organization: The instructor of record and course coordinator will be current Undergraduate Director Kevin M. Pilgrim. Most of the lectures will feature outside speakers. The course will begin with one or two presentations by staff members from the Career Development Center and Arts and Sciences Career Services. Remaining lectures will be given by alumni, friends of the IU Department of Mathematics, the instructor, and faculty from within and outside of mathematics, e.g. Finance and Economics. Alumni will be recruited through collaboration with the College’s Office of Advancement. These speakers will represent a wide variety of fields, potential employers, ages, interests, and professional perspectives. Outside of the lecture, there will be ample opportunities for the students to interact informally with the guest lecturers over breakfast, lunch, or coffee. In fact, informal meetings are an integral part of the course.
Texts (Highly recommended):
- *Ready or Not The Art and Science of the Job Search* available from Indiana University Career Development Center and Arts and Sciences Career Services.

Course Assignments:
1. Before each guest lecture, a short biographical sketch of the speaker will be distributed to students who will use these sketches to prepare discussion questions.
2. Each student will write a résumé under the guidance of the course coordinator and the Career Development Center. The COAS CDC offers help with resume writing on a drop in basis. Successful completion of this assignment will require certification that this service was used.
3. Each student will write two short (2 page) essays on topics such as: What have I learned from the lecture today? Is the career path presented in today’s lecture suitable for me -- why or why not? What information presented in this week’s discussion has direct consequences for my class choices now? Why? Expectations include here that these essays are specific, thoughtful, and reflective.
4. Curriculum link assignment: a short essay (2 pages) explaining in detail how a specific topic from the undergraduate upper-division mathematics curriculum is related to work in a particular career.

Course Requirements:
1. Attendance (prepared questions, class attendance and participation, informal meetings with speakers) 10 points
2. Résumé 30 points
3. 2 short essays of about 2 pages each 40 points
4. curriculum link essay 20 points

Instructions for essays:
Reflecting on an article (announced in class), write a concise, organized, polished, thoughtful two-page essay. It should address the following questions:
1. What piece of information from this article left the deepest impression on you?
2. How might you participate in the developments described in this article?
3. How does this article suggest or inspire any curriculum choices for you here at IU?
4. Discuss very briefly one mathematical topic related to the article.

Reflecting on two in-class presentations, write a concise, organized, polished, thoughtful two-page essay. It should address the following questions.
1. What impressed you most about the career development of these two speakers?
2. Did the presentations provide any surprises for you? What were they?
3. How did the presentations either induce you to change your curricular choices at IU or how did they confirm that you made the correct curricular choices?
4. What is the most important skill you can acquire here at IU?
**Grading Policy:** This class will be graded as follows:

- 91-100%: A
- 81-90%: B
- 71-80%: C
- 61-70%: D
- 0-60%: F

**Targeted Audience:** This class is intended primarily for sophomores and juniors with a major in mathematics; we include here the mathematics/economics interdepartmental BA degree. Seniors with one of these majors and others wishing to take the class will be admitted as space permits.