



**JOINT MEETING OF THE LSA AND COLLEGE OF ENGINEERING CURRICULUM COMMITTEES**

**TUESDAY, FEBRUARY 16, 2010**

**\*\*\* 3:10-5:00 PM \*\*\***

**2001 LSA**

- I. Minutes**
- II. Brad Orr, Chair of Physics**
- III. ECON AP credits and course prerequisites**
- IV. Spanish Language Courses**
- V. Statistics and Probability Courses**
- VI. Math Sequence**
- VII. Guidelines for First-Year Writing Requirement**

**ENCLOSED FOR YOUR INFORMATION**

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# *DRAFT*

## **LSA CURRICULUM COMMITTEE Minutes of February 9, 2010**

Present: Robert Megginson (Chair), Ellie Dertz, Tim Dodd, Karl-Georg Federhofer, Phil Gorman, Lori Gould, Jeffrey Lankowsky, Mika Lavaque-Manty, Neil Marsh, John Mitani, Jennifer Myers, Esrold Nurse, Sally Oey, Jeremy Peterson, Pam Rinker, Catherine Sanok, Mandy Syerle, Donna Wessel Walker, and Evans Young

Visitors: Ted Spencer, Erica Sanders, and Cathy Conway-Perrin

The meeting came to order at 3:10 pm.

### **MINUTES**

The minutes of 2/2/10 were approved.

### **ANNUAL UPDATE FROM LSA ACADEMIC ADVISING**

The following representatives from Newnan Advising Center were invited to update the committee on the efforts of LSA Academic Advising: Esrold Nurse, Assistant Dean for Student Academic Affairs; Tim Dodd, Academic Advising Director; and Phil Gorman, LSA Advising Technology Director; and Cathy Conway-Perrin, Director of Academic Standards and Academic Opportunities. During their three-day Summer Orientation appointment, all incoming LSA students are assigned to a specific academic advisor with whom they can establish an ongoing relationship throughout their undergraduate career. The same is true for advisors in the Honors Program, Residential College, and Comprehensive Studies Program. The attached job description details the basic responsibilities and qualifications of general advisors. A number of technological advances have enabled advisors to serve students more effectively. For example, all LSA students now have an online undergraduate advising file into which advisors enter notes of each meeting. Since most departments use the same tool, general advisors and departmental concentration advisors have access to the same information. Concentration and academic minor release forms are now processed online as well. The ability of advisors to print a one-page LSA degree audit for each student significantly enhances their meetings with students. Faculty advisors on the committee were interested in having access to these tools. Advising is considering how that could work in view of confidentiality concerns and appropriate use of personal information.

Newnan Advising Center is in the second year of an ongoing assessment project of gathering longitudinal data as they follow each cohort of students until graduation. Students provide feedback by completing surveys, one immediately after Orientation and another at the end of Winter term. In these follow-up surveys, with a response rate of 34-37%, students rate what they value the most in their advising appointments and which services they deem most effective. For example, a lot of students rate the printed First-Year Course Guide as an especially valuable resource. The advising center also gathers feedback by sponsoring focus groups and student panels about specific issues. The attachment titled Student Experience with Concentration Advising summarizes a recent Student Advisory Panel on Academic Advising (SAAPA).

On the third day of Orientation, advisors help advisees to register for classes, which is the highest priority for incoming students. The overall focus of LSA Academic Advising, however, is to help students evaluate and broaden their educational goals from a long-term perspective. The model developed by Newnan Advising Center (see attached appointment totals for 2009) makes it possible for their efforts to permeate the lives of students throughout their undergraduate career.

## **ADMISSIONS**

Ted Spencer, Executive Director of Undergraduate Admissions, and Erica Sanders, Director of Recruitment and Operations and LSA's Admissions liaison, gave the committee an overview of next year's entering class. The number of applicants, including more international students, continues to increase each year despite the past year's economic decline. One of the primary goals of UM's holistic admissions process is to achieve diversity in all parameters. Each year their hard work yields a class of "the best and the brightest" that exceeds the last in terms of GPA (around 3.8) and extracurricular activities. Dr. Spencer also reported that UM succeeded better than most institutions in hitting its enrollment target. (The attached PowerPoint document includes a wealth of information about the outcome of the admissions process and how it compares with other institutions.)

The passage of Proposal 2 in 2008 severely limits the university's ability to attract students with targeted scholarships and financial aid, especially in competition with other top universities that can offer a full ride. It is especially challenging to enroll more under-represented minorities, now down to 8%. Overall the use of "early admissions" has been very successful in attracting more top-notch students, and the discontinuation of recalculating grades has not made much difference. Dr. Spencer thinks that next year's switch to the Common Application will make it easier for students and increase volume. In closing, he talked about his desire to develop a program of sponsorship, i.e. identifying current students willing and able to help applying students on a one-on-one basis. Members appointed by LSA Student Government expressed interest in supporting his efforts.

The meeting was adjourned at 5 pm.

**NEXT MEETING: JOINT MEETING WITH ENGINEERING  
February 16, 3-5 pm**

## Topic Details

- I. **Physics courses:** What specific improvements (changes) have you made in your Physics sequence courses, and how did the students, as well as the faculty that uses them as pre-requisites, receive them? Can Statistics or data analysis methodology be highlighted in Physics and CHEM lab courses?
- II. **ECON AP credits and course prerequisites:** Has the new rule (not accepting Econ AP credit as satisfying prerequisite requirements) affected enrollments in higher-level courses? (Both generally and specifically with regard to engineering students and transfer students.)
- III. **Spanish Language Courses:** Engineering students have trouble getting in (this includes both intro and advanced courses). Would it be possible to give enrollment preference to students who need these courses to satisfy specific requirements (of particular concern are students pursuing the international minor)? On a related subject, it may be a good idea to offer some sections of these classes (along with some Math and Science courses) on North campus, for convenience of Engineering students and other undergrads living in North Campus housing.
- IV. **Statistics and Probability Courses:** We believe it is important that Engineering students obtain a basic understanding and knowledge of data analysis and Statistics (and Probability), even if they do not take a full-scale course in the subjects. Is there a way to incorporate some "drops" of this knowledge throughout the curriculum? E.g., can Probability and/or Statistics serve as a source of occasional examples of applications of Calculus techniques they are being taught? Can Stats or data analysis methodology be highlighted in some way in Physics or CHEM lab courses? See next page for additional background information from Marina Epelman.
- V. **Math Sequence:** A year ago, the Math sequence (including, but not limited to, Math 215) was discussed. What's new at LSA?
- VI. **First-Year Writing Requirement:** What are the guidelines for approving courses.

#### **IV. Statistics and Probability Courses, background information**

We believe it is important that Engineering students obtain a basic understanding and knowledge of data analysis and Statistics (and Probability), even if they do not take a full-scale course in the subjects. Is there a way to incorporate some "drops" of this knowledge throughout the curriculum? E.g., can Probability and/or Statistics serve as a source of occasional examples of applications of Calculus techniques they are being taught? Can Stats or data analysis methodology be highlighted in some way in Physics or CHEM lab courses?

We were discussing the fact that, although concepts from Statistics and data analysis are becoming more and more universally relevant in Engineering (with the need to interpret data collected through experiments, system observation, etc.) -- as well as, one could argue, everyday life, there is no common foundation for these concepts that is provided across the different departments in Engineering. A few departments have their own probability and statistics courses, a few others include a module on data analysis within system analysis-type courses, but there does not seem to be a common set of knowledge and skills in this area that every undergraduate engineering student is exposed to by the time of graduation.

We were discussing (fairly informally) what these common knowledge and skills might be, and where in the curriculum they might be incorporated without being disruptive to the normal course flow. It was suggested that it would be interesting to hear LSA's faculty thoughts on the subject, and specifically, whether there were unintrusive opportunities in the Math and Science curriculum to give students some related examples.

I am copying Richard Robertson of MSE on this email -- he initiated the discussion at our meeting, and might want to add something to my summary.

Marina A. Epelman  
Industrial and Operations Engineering  
University of Michigan

**Unofficial feedback from Jan Gerson about ECON AP credits and course prerequisites:**

Pam,

Let me say first that Jim Adams and Jim Holloway (Engineering) have been discussing these issues. Jim is usually our Director of Undergrad Studies, but is on leave this term, so Dan Silverman is the Acting Director. Given their positions, you probably want their input, not mine.

Here's my input, but remember I am not authorized to speak for the department. I think there are two issues --- Econ AP and one term introductory courses transferred to UM. In either case a professor could issue an override to the student and allow the student to take a 300 level econ elective. The enforced prereq merely forces that discussion.

I've spoken briefly with Jim Holloway about the problem encountered by some Engineering transfer students who take one-term introductory econ classes. I suggested we might change the course number for Econ 400, an inactive one-term introductory course, to give transfer credit for a one-term course and then include it in the list of enforced prerequisites for 300 level classes. I've since learned we deleted the course, but we could create a course for this purpose. I think this is a good idea, but don't know whether my department does.

It should be an interesting discussion. It seems like we continue to face enrollment pressure in many of our courses. By the way, most of our econ minors are engineering students and BBAs.

Best regards,

Jan

## Preliminary Responses from Brian Coppola about CHEM courses

-----Original Message-----

From: Brian Coppola [mailto:bcoppola@umich.edu]

Sent: Sunday, November 29, 2009 11:15 AM

To: Megginson, Robert

Subject: Re: LSA Curriculum Committee meeting with Engineering, February 16

1. I know it is difficult for the COE curriculum to deal with, but the demand on CHEM 130 and 125/126 in the Fall term is just about at the breaking point, while it is significantly lower in the Winter. If there are programs for which Winter could be the recommended time, it would help to even things out. It's a perennial request... but with the last few years of increased enrollments, the pressure in the Fall is getting tougher to accommodate.
2. Although CHEM E has removed Analytical Chemistry from its requirements (CHEM 241/242), the analytical group is in the process of developing a new 4 credit set of classes that would reduce the lab meeting to once per week (from twice) and would have a more regular-appearing schedule (ie, MWF for an hour, plus one 3-4 hour lab period). The 2 credit lecture class would meet, formally, on MW, while the lab class would (a) meet for an hour on F, plus the lab period, and (b) our plan is to replicate the success in offering the 2 credit general CHEM lab as CHEM 125/126 so that pre-meds can count it as 2 classes. This class MIGHT be a desirable alternative to General CHEM for the COE students, and it would be attractive for the pre-meds who placed out of 130 who want an actual course on their transcript that would count as a term of lecture and two terms of lab (to the bean counters).

### Email dated 2/11:

The Chem 125/126 class, which they take, is not built on a quantitative/measurement foundation, but rather a phenomenological foundation of chemical trends, periodicity, and so on. So it would be a stretch to get any of this, meaningfully, into that class. In our own program, this does not show up until the Chem 242 (analytical laboratory).

That said, diverting some of the engineering students from the current 125/126 class to another 'flavor' of that class, which might be more measurement-based, is something the department would consider, I think, if they knew there was a large population for it.

In addition, a laboratory class that was co-developed and split with Physics could also be possible - again, if the size of the population might warrant the assignment of two faculty instructors.

Finally, this could help alleviate a perennial problem - that the COE students are so locked into taking their term of Chemistry in the Fall - there are problems (space, equipment, uneven GSI resources) that would go away if the time when COE students took their chemistry could be smoothed out more evenly over the year.

Brian



## **FIRST-YEAR WRITING REQUIREMENT**

All proposals should be submitted to:  
SWEETLAND WRITING CENTER  
1139 Angell Hall, Ann Arbor MI 48109-1003  
Ph: 734-764-0429 Fax: 734-763-3128

Course Guidelines  
Effective January 2002

### **Rationale**

Many students come to Michigan unprepared to manage the argumentative and evidence-based writing that college requires. The goal of our first-year writing courses is to teach students the discipline and skills needed for college writing. Without basic training in these skills, college students can find it difficult to master the art of argument and to achieve the academic sophistication that University of Michigan courses demand.

### **Guiding principle**

Thinking, reading, writing, and revising are intertwined; and writing is best taught and learned by focusing on these elements simultaneously.

### **At the end of the term, students will be able to:**

- Summarize and characterize essays and non-fiction narratives
- Investigate problems and issues by means of course readings or library research evaluate an argument
- Develop an argument and take a position on an issue or propose a solution to a problem
- Support arguments by stating claims in their own words and using course reading and materials gathered through research
- Attribute ideas to their authors and cite sources
- Select the appropriate essay form for the writing task at hand
- Identify and target the audience to be addressed
- Revise extensively through peer response

### **In pursuit of the aims listed above, students will be expected to:**

- Read extensively and respond both orally and in writing to assigned texts
- Manage writing as a process that includes peer review, significant revision, and multiple drafts
- Demonstrate the ability to locate sources and use them effectively
- Employ a variety of genres, especially argument, in both brief essays and in more sustained efforts