

Interoffice Communication

September 24, 2008

To: Physics & Astronomy Faculty  
From: Joe Shields, Chair

The Ohio University Trustees are expected to give formal approval in October for the university's conversion from quarters, in accord with the University System of Ohio Strategic Plan. The Provost's office has initiated a process for the conversion, including appointment of a Transition Team and construction of a draft timeline. Details are given on a link from the Provosts' webpage, and I recommend that you look at this information.

Semesters will take effect in Fall 2012. Departments will need to construct revised curricula, with a deadline of March 2010. Since the curricular revision is nontrivial, it is in our interest to start discussion now of how we will revise the Physics & Astronomy curriculum to meet our needs under a semester calendar. We will need everyone's help to ensure that we adopt the best ideas for working under this new system, and to spread the work so no one is unduly burdened by this effort.

Some general principles to keep in mind in considering a revised curriculum are:

- We will be moving from three 10-week quarters to two 15-week semesters
- The standard lecture course will change from a 4-credit course with 4 contact hours per week, to a 3-credit course with 3 contact hours per week
- We must contribute to the university's general education program at a level comparable to what we do now.
- In revising the curriculum, we need to consider the needs of our students and also the implications for faculty teaching load. *A simple conversion of quarter courses to semester courses would increase the number of sections we offer per term, with corresponding impact on our teaching load.* We therefore need to look for sensible opportunities to repackage and consolidate some of our courses.
- **There are many good examples elsewhere to look to for ideas.**
- The process will need to be iterative, as we communicate internally and with other departments that we depend on, and support.

After consultation with the Advisory Committee, I am appointing a set of working groups that will focus on relatively distinct areas of our curriculum, and formulate revised curricula appropriate for a semesters calendar. The general charge in each case is to put forward a recommended set of courses that cover the group's purview; additional specific issues that each working group should consider are listed below.

## Physics & Astronomy Q2S Working Groups

### 1) *PHYS 200 Series*: **Prakash**, Lucas, Neiman, Tees

- Can we simply preserve the one-year sequence and split it into two parts rather than three?
- How many contact hours per week should this class have?
- How many sections should we offer per term?
- Should we offer a “mega-section” in a room that has more seating than Walter 245?
- Should we offer trailer sections?
- What implications does a semester schedule have for labs?

### 2) *PHYS 250 Series (including PHYS 254)*: **Brune**, Braslavsky, Castillo, Ingram

- How many contact hours per week should these classes have?
- How should topics be allocated to meet the needs of other departments, as well as our majors, and in particular the ABET requirements for engineering majors?
- How many sections should we offer per term?
- Should we offer a “mega-section” in a larger room?
- Should we offer trailer sections?
- What implications does a semester schedule have for labs?

### 3) *P SC Courses*: **Kordesch**, Boettcher, Lucas, Shields

- What courses should be offered, and on what schedule?
- What implications does a semester schedule have for labs?

### 4) *Astrophysics Sequence*: **Boettcher**, Clowe, Shields, Statler

- What courses will be required, and on what schedule?
- Which courses will be cross-listed?
- This group should work with the Undergraduate and Graduate working groups to refine degree requirements

### 5) *Undergraduate Majors courses*: **Tees**, Castillo, Hicks, Ingram, Smith (+ Ulloa)

- What courses should be offered, and on what schedule? This will very likely involve some restructuring of content.
- What courses could be consolidated?
- What courses can/should be cross-listed with graduate courses?
- What will be the course requirements for the majors offered by the department?
- Should we try to build in programming experience early on, which will enable more use of computer assignments across the curriculum?

(Ulloa is included as liaison with the Graduate Working Group)

6) *Graduate courses*: **Govorov**, Elster, Jung, Statler, Ulloa (+Hicks)

- What courses should be offered, and on what schedule? This may involve restructuring of content.
- What courses can/should be cross-listed with undergraduate courses?
- What will be the course requirements for the degrees offered by the department? What will be “core” courses, and what will be electives?

(Hicks is included as liaison with the Undergraduate Working Group)

### Timeline

Based on the draft timeline for the Q2S conversion, and subsequent revision by the Transition Team, we should plan on having the outline of our revised curriculum defined by sometime during Fall 2009, so that we can then start filling out paperwork to be submitted to the College by the end of Winter 2010. After the Working Groups formulate their initial recommendations, we will need to iterate and communicate across groups to ensure that the curriculum works as a whole, and that we can support it with our available teaching resources.

I would therefore ask the Working Group chairs (listed in boldface above) to initiate regular meetings at this time, on at least a biweekly schedule, to undertake the tasks outlined above. I will be checking with the WG chairs to gauge progress and provide general assistance as needed. The outcome should be a list of recommendations accompanied by a brief written narrative, sufficient to enable other members of our department to understand the logic behind the WG's choices. *The initial WG written recommendations should be completed and made available to the department by the end of April 2009.*