Agenda for Today's Discussion

1) Components of our Undergraduate Program(s)

2) Areas Identified for Action
   1999 Assessment
   1997 Self Study
   2000 Timbie Directives to Committees
   other (SyMBiosis, LINKS)

3) Overview of Presentation Planned for External Review

4) Introduction of today's discussion as the first in a series,
   the all new, bright and shiny, Department of Physics
   Forum on Teaching and Learning

Einstein cross
Undergraduate Programs

General Education Courses
107, 109, 115, Environment?

Service Courses, Introductory Sequences
103-104
201-202-(205 or 244)
207-208-241
247-248-249

Majors Programs (Physics, AMEP, Astronomy/Physics) Courses Beyond Introduction
311-322
307-308-321-407-625
325-415-433
448-449
General Relativity and Cosmology
681 (or 691)-682 (or 692) -- Senior Thesis

Additional Course Opportunities in Physics
Independent (Directed) Study at all levels
"Topics" Courses (cosmology, chaos, . . .)
463-501 Radiology (Medical Physics)
522, 525, 535, 623, 625

Math Courses (e.g)
221-222-234 Calc
319 320 340 DE, Linear
321-322 Analysis

Advising and Mentoring
SOAR, LSAC, Major Advisors, Mentors, Career Advising
Written and Web information

Additional Aspects
Physics Club
Computer Facilities
Undergrad Research (hourly, Soph Summer, Hilldale, Senior Thesis)

Recruitment

Involvement Outside University
Identified Areas for Action

A  Curriculum Improvements
- Introductory sequence for majors integrating modern physics into first year
- Add Relativity/Cosmology course at intermediate level
- Revitalize 433, Computational Physics
- Familiarize Dept with revitalized computer lab for use on assignments in other courses
- Advise Math on curriculum changes we want
- TA training
- Look into offering a Physics for Business survey course--currently 103 taken

B  Organization
- Survey introductory course clientele with eye to future morphing of courses
- Involve new faculty members in teaching of introductory courses
- Keep handbook updated, put on Web -- reliable, thorough, up-to-date info source
- Formalize content coverage of intermediate courses, assigning, in particular, the one place where Special Relativity will be covered thoroughly
- Form standing undergrad program oversight committee
- Advise space committee on future needs related to move--many areas (preservation of Physics Club room, computer lab, classrooms, lecture halls, labs)
- Continue many things working well now, Alumni Newsletter, . . .
- Induce majors to declare earlier (offer exciting free T-shirt?)
- Institute regular meetings of forum on teaching and learning to consider the nature of our endeavor, how we go about it, how we might do better, and to encourage experimentation and innovation
- Obtain year end reports from undergrad committees, and provide goals for the new year's committees

C  Labs
- Obtain stable funding for intermediate and advanced labs
- Assign a faculty member to operate, oversee, and develop 200 level labs
- Continue updating lab manuals for intro courses, modernizing labs, seeking funding

D  Outreach
- Build recruitment network, letters of invitation to 247,8,9 prospects
- Initiate science education program for high school teachers, develop Physics Learning Center, continue Peer Mentor Program
- Resume monthly evening public lecture series

E  Advising
- Increase emphasis on undergrad research involvement, advertising possibilities and availability
- Enhance advising program to meet needs of those not doing undergrad research
- Initiate stronger interaction with Physics Club (5 advisors)
- Rejuvenate the mentoring program
- Develop in-house expertise on job seeking, placement, career advising, possibly including networking with alumni
- Inform SOAR of appropriate advising information for majors and intro sequences in general, contact potential majors when they first get here
Schedule for External Review of UG Program

Friday, November 3, 2000

8:30 AM -- 10:00 AM
Meeting with Coordinator of UG Program (Timbie) and Chair of Intermediate/Advanced Course/Lab Committee (Cox)
(Tentative agenda on next page)

10:00 AM -- 10:30 AM
Meeting with Faculty and Staff Who Instruct Undergraduates

10:30 AM -- 10:45 AM
Break

10:45 AM -- 11:10 AM
Meeting with Undergraduates
   Majors, potential majors

12:00 Noon -- 1:00 PM
Luncheon with Undergraduates
   Majors, potential majors
******************Agenda for 8:30-10 AM Segment************************

Overview of Program
- lots of students served overall
- healthy but small population of majors

Assessment of service courses
- enrollment trends
- surveys of clientele
- lab improvements, need for more
- visit to a lab if time permits
- Peer Mentor Tutoring program

Assessment of TA training
- what we do
- TA workload is enormous
- shortages of TA's in recent past

Assessment of courses for majors
- lab improvements, need for more
- visit to a lab if time permits
- new intro course series for majors (P247/8/9)
- revitalized computing course (P433)

Assessment of UG major program
- Walker Committee report
- alumni survey
- placement of graduates in grad school, other careers?

Documents to share with visitors:
PT's annual report "State of the UG Program"
Dept. Self-Study
Walker Committee report on UG assessment
List of Course Descriptions
Enrollment trends
  # of majors graduated by year for last 10 years
  # students in each of our courses for last 10 years
  breakdown of majors of students in service courses
UG Handbook
Lab Manuals
  109
  100 -series
  200 -series
  Lab Modernization records