Minneapolis State University, Mankato

Curriculum Proposal

Please type or select the requested information. Print completed forms, add appropriate paper attachments, and route through MSU's curricular process for recommendations and decisions.

<table>
<thead>
<tr>
<th>College: Science, Engineering and Technology</th>
<th>Proposal # 150</th>
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</thead>
<tbody>
<tr>
<td>Department: Physics and Astronomy</td>
<td>Effective Date of Change:</td>
</tr>
<tr>
<td>Program: Physics (5-12 BS Teaching)</td>
<td>Academic Year 1995</td>
</tr>
<tr>
<td>Type of Change: PROGRAM PROPOSALS</td>
<td>(For Office Use Only)</td>
</tr>
<tr>
<td>Proposed: Redesign--Change in Total Program Credits</td>
<td>Course Designator</td>
</tr>
<tr>
<td>Title Current: Physics (5-12 BS Teaching)</td>
<td>Number of</td>
</tr>
<tr>
<td>24-Char. Abbrev:</td>
<td>Credits</td>
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</table>

Include a course or program description for the Bulletin (30-40 words maximum for courses, 100 for programs):

Rationale or Justification for change:

The current BS (5-12) Teaching degree in Physics requires an inappropriately large amount of advanced physics content. The content requirements of the current program are more in line with what would typically be expected of a physics student preparing for entry into a graduate program. In addition, the number of credits required, and courses outside of the department of Physics and Astronomy make the existing program cumbersome. This revision is an effort to streamline the program and bring the content requirements to an appropriate level.

<table>
<thead>
<tr>
<th><strong>For General Education or Cultural Diversity Courses Only</strong></th>
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<tbody>
<tr>
<td>General Education Course:</td>
</tr>
<tr>
<td>GE Category #</td>
</tr>
<tr>
<td>N/A</td>
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<tr>
<td>N/A</td>
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<td>N/A</td>
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</table>

1. For Writing Intensive Courses, attach a description of the kind and quantity of writing.
2. For Upper Division Courses, include a description of the respects in which it is broad and general rather than narrow and specific, and so suitable as GE.

Attach paper copies of the following:

a. Syllabus or course outline.

b. Course's student learning outcomes associated with each GE competency or CD designation.

c. List of strategies to be used to assess students' achievement of each GE competency or CD designation.

<table>
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<tr>
<th><strong>For New Courses</strong>*</th>
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<tr>
<td>(Check all that apply):</td>
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<tr>
<td>Course is an elective.</td>
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<td>Course is required for program</td>
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<tr>
<td>Pre- or Co-requisites:</td>
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<tr>
<td>Other courses are being changed or eliminated. (Explain.)</td>
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</table>

☐ Course content or title is similar to courses in other departments. (Attach copy of letter of agreement with other program(s) contacted. Indicate the nature of the discussions and/or resolution of differences or potential conflicts.)

Attach paper copies of the following:

a. Syllabus or course outline.

b. Course's student learning outcomes.

c. A list of resources required to offer and support this course.

d. A description of how teaching this course will affect department staffing.

e. If 400/500 level course, an explanation of added expectations of graduate students.
***For Program Proposals***

Attach paper copies of the following:

a. Student learning outcomes for the program.
b. Minutes from department and college curriculum meetings in which action was taken on this proposal.
c. Program Assessment Plan. Forms are available on the Academic Affairs Web site:
   http://www.mnsu.edu/acadaff/words/PRA_SampSLOAssessPlan.doc
d. List of program requirements for New programs, or a list of Current and Proposed program requirements for Redesigned programs.
e. A list of resources required to offer and support this program.
f. A description of how offering this program will affect department staffing.
g. A list of additional library holdings required for this program.

Please include rationale for any proposed changes in number of program credits:
The revised program results in a net reduction of 4 credits. This reduction has resulted from the process of streamlining the program with the intent of making the content requirements more appropriate for the degree earned.

***For Programs Requiring MnSCU Approval***

If any of the following changes are proposed, please fill out and attach MnSCU Program Approval Forms, which are available on the Academic Affairs Web site:
   http://www.mnsu.edu/acadaff/html/currfomsprocesses.htm

1. Creation of an entirely new program.
2. Redesign of existing programs, which takes any of the following forms:
   - Addition or deletion of a program option. Options are part of program design in which 30-50% of the courses are required as part of a common core for all students, and which offers curriculum alternatives greater than 30% of the total number of credits in the major. Options are appropriate to baccalaureate or masters programs.
   - Addition or deletion of a program emphasis. Emphases are part of program design in which more than 50% of the courses are required as part of a common core for all students, and which offers curriculum alternatives with a minimum of nine credits. Emphases are appropriate to associate and baccalaureate programs.
   - Change in program name.
   - Change in program CIP #.
   - Change in TOTAL program credits.
   - Change in degree award. For example, changing a B.A. to B.S.
   - Creation of a new degree award in a related academic area. Examples include creation of a certificate program from an existing degree program, or a new degree program from an existing degree program (e.g., Art History BA from Art BA.)
3. Relocation of an existing program. This is a proposal to move an existing program from one site to be exclusively offered at another site, and requires closing the program offered at the original site. For example, a program offered both on-campus and through extended campus is to be offered only at the extended campus site.
4. Replication of an existing program. This is a proposal to offer an existing program at a new site, which may be an existing MnSCU-approved site, or another campus of the same institution. Replicated programs are offered at both the original site and the new location.
5. Suspension or reinstatement of a program. This proposal suspends admission of students into an existing program, and is good for three years. Reinstatement proposals request the reopening of student admissions into a given program.
6. Closure of a program. This proposal requests closure of an existing program and its from an institution's official inventory of academic programs. Unless a department seeks to re-open a suspended program, it should be closed within three years of suspension.
<table>
<thead>
<tr>
<th>Department</th>
<th><strong>Signature Page</strong></th>
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<tr>
<td><strong>X</strong> Recommended (Category/ies)</td>
<td>Mark A. Pick 2/11/05</td>
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<tr>
<td>_Not Recommended (Category/ies)</td>
<td>Department Chair Date</td>
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<tr>
<td><strong>X</strong> Recommended (Category/ies)</td>
<td>Karen C. Olson 2/24/05</td>
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<tr>
<td>_Not Recommended (Category/ies)</td>
<td>Committee Chair Date</td>
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<td>_Recommended (Category/ies)</td>
<td>Sarah S. Jones 3/1/05</td>
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<tr>
<td>_Not Recommended (Category/ies)</td>
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<td>_Not Recommended (Category/ies)</td>
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<tr>
<td>_Recommended (Category/ies)</td>
<td>UCAP Faculty Chair Date</td>
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<td>_Not Recommended (Category/ies)</td>
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<th>Academic Affairs Council</th>
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<tr>
<td>_Recommended (Category/ies)</td>
<td>Assistant Vice President Date</td>
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<td>_Not Recommended (Category/ies)</td>
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<tr>
<th>Senior Vice President and Vice President for Academic Affairs</th>
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<tr>
<td>_Approved (Category/ies)</td>
<td>Sr. Vice President / Vice Pres. Academic Affairs Date</td>
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<tr>
<td>_Not Approved (Category/ies)</td>
<td>Comments:</td>
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3 Revised September 2002
Learning Outcomes:

Students should have:

1. a rich understanding of the basic principles of classical physics.
2. the ability to effectively communicate these principles to physics students.
3. the ability to recognize the physical principles responsible for everyday phenomena.
4. knowledge of the fundamental theories and the unanswered questions of modern physics.
5. knowledge of the mathematics used to frame and solve problems in physics.
6. the ability to frame and solve simple mathematical problems about everyday phenomena and about modern physics.
7. knowledge of the experiments which are the basis of our knowledge of classical and modern physics.
8. the ability to analyze and interpret experimental results.
9. an understanding of, and the ability to use, computers for obtaining and analyzing data.
10. the ability to design experiments to test hypotheses and/or to estimate model parameters.
## Assessment Plan Report Preparation Form

<table>
<thead>
<tr>
<th>Student Learning Outcomes (performance, knowledge, attitudes)</th>
<th>Related College Goals</th>
<th>Related University Goals</th>
<th>Method(s) of Assessment</th>
<th>Who Assessed (Students from what courses - population)</th>
<th>When Assessed (dates)</th>
<th>Standard of Mastery Criterion of Achievement</th>
<th>What is Hoped to Be Learned?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students should have a rich understanding of the basic principles of classical physics.</td>
<td>C2, C6, C11</td>
<td>U2</td>
<td>Student surveys/ Alumni surveys</td>
<td>Physics BT Majors</td>
<td>Spring of graduating year/ Spring 2 years after graduation</td>
<td>No less than 70% will rate 70% or greater satisfaction.</td>
<td>The degree of student confidence and competence in classical physics.</td>
</tr>
<tr>
<td>2. Students should have the ability to effectively communicate these principles to physics students.</td>
<td>C2, C6, C11</td>
<td>U2</td>
<td>Student surveys/ Alumni surveys</td>
<td>Physics BT Majors</td>
<td>Spring of graduating year/ Spring 2 years after graduation</td>
<td>No less than 70% will rate 70% or greater satisfaction.</td>
<td>The degree of student confidence and competence in tutoring and/or teaching physics concepts.</td>
</tr>
<tr>
<td>3. Students should have the ability to recognize the physical principles responsible for everyday phenomena.</td>
<td>C2, C6, C11</td>
<td>U2</td>
<td>Student surveys/ Alumni surveys</td>
<td>Physics BT Majors</td>
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<td>4. Students should have knowledge of the fundamental theories and the unanswered questions of modern physics.</td>
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<td>5. Students should have knowledge of the experiments which are the basis of our knowledge of classical and modern physics.</td>
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<td>U2</td>
<td>Student surveys/Alumni surveys</td>
<td>Physics BT Majors</td>
<td>Spring of graduating year/Spring 2 years after graduation</td>
<td>No less than 70% will rate 70% or greater satisfaction.</td>
<td>The degree of student confidence and competence with laboratory experiments.</td>
</tr>
</tbody>
</table>

Related University Goals:

U2: The University will prepare students for careers and for life-long learning by providing a clearly defined general education program and focused undergraduate pre-professional, professional, and liberal arts programs.

Related CSET Goals:

The College of Science, Engineering and Technology will provide quality undergraduate and graduate programs that foster student learning through a wide variety of instructional applications. This will be accomplished by:

C2: Providing degree programs that give students in-depth knowledge, inspire critical thinking skills, problem solving skills, oral and written communication skills and laboratory skills.

C6: Producing graduates that are recognized for their high quality and readiness to enter the workforce.

C11: Engaging interested students in science and mathematics education so that they can positively influence the development of young minds (K-12).
**Resources Required:**

As the revised program contains only coursework already offered by the department of Physics and Astronomy, no new resources will be required as a result of the revision.

**Staffing Issues:**

As the revised program contains only coursework already offered by the department of Physics and Astronomy, there should be no effect on staffing as a result of the revision.

**Library Holdings:**

As the revised program contains only coursework already offered by the department of Physics and Astronomy, there should be no need for additional library holdings as a result of the revision.
## Existing Program

- **Required General Education (3 credits)**
- **Recommended General Education (22-23 credits)**
- **Required General Science Core (31-33 credits)**
- **Required Professional Education (30 credits)**

**Required for Major (Core, 26-28 credits):**
- MATH 121 Calculus I (4)
- MATH 122 Calculus II (4)
- EET 112 Elementary Electronics (3)
- EET 113 DC Circuits (3)
- PHYS 381 Tutoring Physics (1-2)
- PHYS 435 Modern Physics I (3)
- PHYS 457 Optics (3)
- PHYS 482 Teaching Methods and Materials in Physical Science (4)
- PHYS 493 Undergraduate Research (1-2)

**Required for Major (Electives, Min. of 7 credits):**
- PHYS 441 Mechanics (4)
- PHYS 447 Electricity and Magnetism I (3)
- PHYS 453 Solid State Physics (3)
- PHYS 461 Quantum Mechanics (4)
- PHYS 465 Computer Applications in Physics (3)

## Proposed Program

- **Required General Education (3 credits)**
- **Recommended General Education (22-23 credits)** including MATH 121
- **Required General Science Core (31-33 credits)**
- **Required Professional Education (30 credits)**

**Required for Major (Core, 21 Credits):**
- MATH 122 Calculus II (4)
- PHYS 381 Tutoring Physics (2)
- PHYS 435 Modern Physics I (3)
- PHYS 436 Modern Physics II (3)
- PHYS 465 Computer Applications in Physics (3)
- PHYS 482 Teaching Methods and Materials in Physical Science (4)
- PHYS 493 Undergraduate Research (2)

**Electives (Minimum of 8 Credits)*

Students may use Physics 221 and 222 to fulfill their Physics Electives requirement only if Physics 211 and 212 are completed successfully.

Alternatively, students with a strong interest in applying advanced mathematical skills to problems in physics are encouraged to choose a minimum of 8 credits* of higher level Physics or Mathematics as approved by the student’s advisor to fulfill the Physics Elective requirement.

*This is reduced to 6 credits if Physics 221 and 222 have been taken in place of 211 and 212 in partial fulfillment of the General Science Core requirements.
Proposed Changes to Physics BS Teaching Program
Department of Physics and Astronomy
MSU MANKATO

Existing Program

Required General Education (3 credits)

Recommended General Education (22-23 credits)

Required General Science Core (31-33 credits)^

Required Professional Education (30 credits)

Required for Major (Core, 26-28 credits):
MATH 121 Calculus I (4)
MATH 122 Calculus II (4)
EET 112 Elementary Electronics (3)^^
EET 113 DC Circuits (3)^^^
PHYS 381 Tutoring Physics (1-2)
PHYS 435 Modern Physics I (3)
PHYS 457 Optics (3)
PHYS 482 Teaching Methods and Materials in Physical Science (4)
PHYS 493 Undergraduate Research (1-2)

Required for Major (Electives, Min. of 7 credits):
PHYS 441 Mechanics (4)^^^
PHYS 447 Electricity and Magnetism I (3)
PHYS 453 Solid State Physics (3)
PHYS 461 Quantum Mechanics (4)
PHYS 465 Computer Applications in Physics (3)

Shortcomings of existing program

^ Currently the Physics 211-212 or 221-222 sequences are part of the general science core. For physics teaching majors, this choice creates problems. The students that take the algebra-based sequence are comparatively weak in general physics in comparison to their fellow students in upper level physics. Furthermore, the calculus-based sequence is required to fulfill prerequisites for future courses in the program. Therefore students must either take the 221-222 sequence or be forever asking special permission for entry in the higher level courses.

^^ The EET courses listed here are an odd inclusion. They do not seem necessary to fulfill any particular competencies or standards for the students not already addressed in the required Physics courses.

^^^ Currently the student is nearly forced into taking Mechanics. The only alternative is to take 9 credits of electives from 453, 465, and 447. The student cannot take 461 without 441. If the student wishes to avoid adding an additional 400 level physics course, they must take 441. In addition, the student must take MATH 223, the program requirements cannot be fulfilled without it. However, the course isn’t listed as a requirement.
On a more general note, the 5-12 licensure program requires a daunting course load for successful completion, no matter which emphasis the student chooses. Any reduction in that course load can only be a step in the right direction. Of course, we should be unwilling to remove content from the program that we think of as necessary for future high school teachers. One of the primary distinctions between our program and similar programs offered in Chemistry, Biology, and Earth Science is the level of Mathematics required. In part, this is a natural response to the needs of our discipline, but we currently require two more advanced math courses than Chemistry, our closest competitor. In reality it is difficult to complete the above program without Math 321 as well, which adds another hidden prerequisite to the program.

**Proposed Program**

**PHYSICS (5-12) BS TEACHING**

**Required General Education (3 credits)**

**Recommended General Education (22-23 credits)**
Including MATH 121

**Required General Science Core (31-33 credits)**

**Required Professional Education (30 credits)**

**Required for Major (Core, 21 Credits)**
MATH 122 Calculus II (4)
PHYS 381 Tutoring Physics (2)
PHYS 435 Modern Physics I (3)
PHYS 436 Modern Physics II (3)
PHYS 465 Computer Applications in Physics (3)
PHYS 482 Teaching Methods and Materials in Physical Science (4)
PHYS 493 Undergraduate Research (2)

**Electives (Minimum of 8 Credits)**
Students may use Physics 221 and 222 to fulfill their Physics Electives requirement only if Physics 211 and 212 are completed successfully.

Alternatively, students with a strong interest in applying advanced mathematical skills to problems in physics are encouraged to choose a minimum of 8 credits of higher level Physics or Mathematics as approved by the student's advisor to fulfill the Physics Elective requirement.

*This is reduced to 6 credits if Physics 221 and 222 have been taken in place of 211 and 212 in partial fulfillment of the General Science Core requirements.

**Shortcomings addressed**

In the new plan, physics teaching majors will be allowed the option of taking both the algebra-based, and the calculus-based sequence of general physics. This will allow the students to take a physics sequence similar in scope to those courses they will someday teach, and subsequently bolster their understanding of general physics by taking the calculus-based sequence. In short, this revision gives students a great deal of introductory and general physics, which is exactly what they need. The added benefit of this option is that we open the door to students enrolled in 211-212 who become enthusiastic about physics and physics teaching without placing them in a situation in which
they are under-prepared to continue in the program. In contrast to the existing program, these choices allow students with a much wider range of prior experience the opportunity to start a physics teaching career.

**The EET courses are not included in the new plan. The addition of Physics 436 to replace these courses is much more in line with the current set of competencies required for 5-12 licensure.

*For students with more prior experience in Physics and Math, the option of higher level Physics and Math still exists, but students who would otherwise face an enormous course load to prepare themselves for upper-level physics have an alternative.

The net effect of the changes on total program credits is a reduction of 4-6 credits in the new program.

Respectively Submitted:

Dr. Thomas Brown  
Dr. James Pierce  
Dr. Louis Schwartzkopf

Department of Physics and Astronomy
Department of Physics and Astronomy
Minutes of Department Meeting
Tuesday 1/25/05


Lou Schwartzkopf is the Recording Secretary this semester.

The meeting was called to order by Chair, M. Pickar at 4:30 PM.

1) The Minutes of the meeting of 12/08/04 were approved with one small correction.

2) Announcements by M. Pickar:
   a) Welcome to Russ Palma
   b) A friend of Jack Flinner has asked the department to review a mathematical physics article written by a friend of his. Several faculty have volunteered to do this.
   c) There will be several open houses next week for newly admitted freshmen. M. Pickar will cover them.
   d) Susan Ward from the CSET office has requested volunteers for Rube Goldberg Day. January 31st is the deadline for volunteering.
   e) Volunteers to judge in the Junior/Senior High Regional Science Fair and the Elementary Regional Science Fair have been solicited. The deadlines to sign up are Friday, February 4th (Junior/Senior High) and Friday, March 18th (Elementary).
   f) R. Palma has been appointed a member of the Graduate Faculty.
   g) There is a new student, Saeed Hashmi, in charge of the college webpages. University standards on webpages will be imposed by the end of the year.
   h) Dean Frey is requesting by Tuesday, February 1, proposals for Institutional Equipment. Proposals for Institutional remodeling will be done in the near future.

3) Written Masters Comprehensive Examination.
   Y. Xu presented the results of the Written Masters Comprehensive Examination. Y. Xu moved to pass Jeff Burkett, T. Brown seconded. The motion passed unanimously.

4) Second request for library books.
   H.-S. Wu announced that physics has $1640 in book money remaining for this academic year. P. Eskridge said that astronomy has $1415 remaining. Faculty should get book requests to their respective liaisons by Friday, February 11th.

5) Revised B.T. in Physics degree.
   T. Brown presented a document “Proposed Changes to Physics BST Program” to the department for its consideration. There was some discussion. M. Pickar moved to strike from the Physics section of the Undergraduate Bulletin the sentence: “Students may receive credit for only one course in each of the following pairs of courses: PHYS 211 and 221, 212 and 222”. Seconded by J. Pierce. The motion passed unanimously. M. Pickar moved to strike the phrase “...prior to enrollment in Physics 221 and 222.” from the first sentence of the Electives section of the Proposed Program (see attached document). P. Eskridge seconded. The motion passed unanimously. J. Pierce moved to approve the proposed physics BST program as amended. S. Kipp seconded. The motion passed unanimously.

6) B.A. degrees in physics and astronomy.
   M. Pickar moved to eliminate the B.A. degree in physics. J. Pierce seconded. The motion passed unanimously. S. Kipp moved to eliminate the B.A. degree in astronomy. I. Kogoutiouk seconded. The motion passed unanimously.
7) **Program Review**
M. Pickar distributed a document that detailed the final steps the department needed to do to complete the Program Review process.

8) **Other:**
   a) H. Terletksa, one of our graduate students, will give a poster presentation at the American Physical Society meeting in March. Her name is on three presentations to be given at this meeting. Y. Xu moved to pay $600 from the Physics Foundation Fund to support her travel to this meeting. L. Schwartzkopf seconded. The motion was passed, with objections from the Chair.

   b) L. Schwartzkopf asked if anyone was interested in taking Dean Moosavi, our seminar speaker next Thursday, February 3, to dinner at Maggie’s after his seminar. M. Pickar responded in the affirmative. L. Schwartzkopf will extend him an invitation. Other faculty are welcome to join us; let L. Schwartzkopf know by next Wednesday if you are coming, so that a reservation can be made.

Meeting adjourned at 5:35 pm

Respectfully submitted,

Louis Schwartzkopf
Dear Mark,

Thank you for allowing me to discuss this matter with my faculty. As I expected they were understanding and supportive of your proposed changes. It is the position of the ECET department that your efforts to strengthen and grow this program are important to the long term goals of increasing the number of well trained Physics teachers. The ECET department supports your proposed changes because we feel that you and your department are in the best position to make recommendations about how this program can be made more attractive to students. Again our best wishes in this effort and please feel free to contact us if we can as a department be of any assistance.

Best Regards!
Bill

-----Original Message-----
From: Mark A. Pickar [mailto:mark.pickar@mnsu.edu]
Sent: Wednesday, February 16, 2005 8:42 AM
To: Hudson, William B
Cc: Pickar, Mark A
Subject: Redesign of the BST in Physics Program
Importance: High

DATE: 16 February 2005
TO: William Hudson, Chair, Dept. of Electrical & Computer Engineering & Technology
FROM: Mark Pickar, Chair, Dept. of Physics and Astronomy
RE: Redesign of the BST in Physics Program

Dear Bill,

Our department is submitting a curriculum proposal to redesign the BST (Bachelor of Science in Teaching) in Physics Program. As part of that proposal we plan to drop from the program requirements two courses from your department: EET 112 (Elementary Electronics) and EET 113 (DC Circuits).

As part of the curriculum proposal procedure, we kindly ask your acknowledgement of receipt of this information and your department's acceptance of our proposal.

In the interest of expediency, I am initiating this correspondence by email. However, in observance of proper form, I will also be sending you the same request via ordinary mail on department letterhead.

Thank you,
Mark

Mark A. Pickar, Professor and Chair
Dept. of Physics and Astronomy
Minnesota State University, Mankato
tel. (507) 389-5741
fax (507) 389-1095
mark.pickar@mnsu.edu

2/22/2005
Minutes for CSET Curriculum Committee for Weds, 23 Feb. 2005

Present: Markowski, Mahoney, Rife, Asher, Mandojana, Fee, Chou, Herickhoff, Wiest, Bomier, Pomije

Meeting called to order at 2:05 p.m.

Minutes from 10-26-04, 11-1-04, or 11-2-04 were not available for approval; Mahoney promised to draft them soon for approval by e-mail or at the next meeting.

Proposals were considered in the order Chou outlined in her e-mailed agenda.

Mahoney presented Course Withdrawal proposals from Biological Sciences (05-61, -62, -63, -64, and -65). Chou requested minor changes to the cover sheets. Mandojana moved to approve with changes and Rife seconded. Motion carried unanimously.

Mahoney presented Program Closure proposals from Biological Sciences (05-66, -67, and -68). Herickhoff moved to approve and Mandojana seconded. Motion carried unanimously.

Herickhoff presented Program Closures from Physics and Astronomy (05-70 and -71) and moved to approve; Mandojana seconded. Motion carried unanimously.

Herickhoff presented Change of Prerequisite requests from Physics and Astronomy (05-73 and -74). Chou attached a memo from James Pierce of Astronomy stating that the minor adjustment to the course content of AST 430/530 without having COMS 272 as pre-requisite. Herickhoff moved to approve and Mandojana seconded. Motion carried unanimously.

Chou presented Change of Co-requisite requests (05-76 and -76) from Civil and Mechanical Engineering. Mandojana moved to approve and Wiest seconded. Motion carried unanimously.

Rife presented New Course proposal 05-69 from Chemistry. This proposal for an online course had been tabled (as 05-07) at a previous meeting and was being resubmitted. The committee suggested that the following text be appended to the course description and that HP add similar text to the HP 135 description: “This course is cross listed with HP 135. Credit for both HP 135 and CHEM 135 is not allowed.” Discussion followed on the ease with which students might cheat on their on-line exams. The committee decided that it was not appropriate to hold up this proposal because of their personal reservations. Herickhoff agreed to draft a resolution outlining concerns that members of the committee have about on-line exams. The resolution is not intended to represent the view of the committee but rather the views of faculty serving on the committee. Asher moved to approve and Mahoney seconded. Motion carried unanimously.

Mandojana presented New Course proposal 05-77 from Mechanical and Civil Engineering. He questioned that the “Program Outcomes” were not specific enough. Pomije commented that UCAP usually prefers to see a syllabus rather than an outline but did not foresee difficulty with the format. Rife moved to approve and Mandojana seconded. Motion carried unanimously.
Mandojana presented New Course proposal 05-78 from Mechanical and Civil Engineering. He noted that the Course Outcomes were the same as those of 05-77. He also noted that the course is very similar to a course he teaches (EE 698) and that the same text book will be used. He further commented that ME was requesting $200,000 for the new course budget and that the stated prerequisites were not sufficient for the topics as outlined. Chou stated that the course was already being taught as a Special Topics course and will ask the instructor to contact Mandojana. Herickhoff motioned to table the proposal and Mahoney seconded. Motion carried unanimously.

Mandojana presented New Course proposals 05-80 and 05-81 from ECET. 05-80 needs a syllabus and 05-81 needs to be considered with it. Chou moved to table both proposals and Rife seconded. Motion carried unanimously.

Herickhoff presented Program Redesign proposal 05-72 from Physics and Astronomy. Chou has a memo to attach stating that Computer Science has been made aware of the proposal and has no objections. Mandojana moved to approve and Herickhoff seconded. Motion carried unanimously.

Herickhoff presented Program Redesign proposal 05-79 from Physics and Astronomy. Chou suggested running "before and after" versions of the program on one page in two columns so that changes could be easily seen. Chou will attach a memo from Bill Hudson stating that ECET has no objection to the proposed changes.

Mandojana moved to adjourn and Rife seconded. Motion carried unanimously at 2:55 p.m.

Respectfully submitted by

Alison Mahoney,
Secretary