### New Course Proposal Form

1. Will this new course affect a current program?  
   If "yes", has a Program Revision Form been submitted concurrently?  
   - Yes [ ]  
   - No [x]  

2. Teaching Department:  
   - Physics  

3. Administering Faculty/Unit:  
   - Science  

4. Campus  
   - (Downtown, Macdonald, Off Campus, Distance Ed, Other – specify)  
   - Downtown  

5. Effective Term of Implementation  
   (Ex. Sept. 2004 = 200409)  
   - Term: 200701  

6. Responsible Instructor  
   - M. Kilfoil, J. Barrette, D. Ryan  

7. Course Title (Limit 30 Characters) - required for all courses:  
   - Energy and the Environment  

8. Course Title to Appear in the Calendar (optional)  
   (Limit 59 characters):  
   - Energy and the Environment  

9. Course Title to Appear in the Calendar (optional)  
   (Limit 59 characters):  
   - (Tick all that apply)  
   - Subject/course number: PHYS 228  

10. Credit Weight  
    (or CEU's for non-credit CE courses):  
    - 3  

11. Rationale for new course  
    The world’s energy situation continues to be a much-discussed topic. Beyond the “received wisdom” (“we’re running out of oil”, “solar is good”) there is a need for quantitative knowledge and critical thinking. This course will be a quantitative approach to energy, including its generation and consumption and its environmental impact. It will touch on both non-renewable sources (fossil fuels, nuclear) and renewable sources (hydroelectric, solar, tidal, geothermal). The ability to do back of the envelope calculations concerning energy generation and use will be stressed.  

12. Course Description  
    (as it will appear in the Calendar [maximum 50 words]):  
    (N.B. Faculty of Medicine must append complete course outline)  
    - Energy fundamentals, generation of electricity, heat engines, fossil fuel production and consumption, local and global effects, economic impact, transportation, and pollution and environmental impact of energy use. Non-renewable energy sources (fossil fuels, nuclear) and renewable sources (solar, wind, hydro, geothermal).  

13. Supplementary information to appear in the Calendar in addition to the course description.  
    Such as: equivalent course(s), contact hours, enrolment limitations, language of instruction etc.  
    Please enter the information as it should appear in the calendar notes.  

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C1-1
14. Schedule Types(s): (Enter all that apply – see course guidelines for a complete list.)(i.e. Lecture, Labs, Tutorial)  
<table>
<thead>
<tr>
<th>Hours per Week</th>
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<td>Lecture</td>
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Total Hours per Week: 3

Total Number of Weeks: 13

15. Projected Enrolment: 50

16. Required text and/or preliminary reading list sent to library?  
X Yes  □ No

17. Prerequisite(s) (Courses or Tests)  
Specify course number(s) or name(s) of test(s):  
none  
If the student does not have a prerequisite should web registration be blocked?  
□ Yes  □ No  
If “Yes” complete A and B:  
A. Indicate minimum grade or test score(s) the student must attain in prerequisite course(s) or test(s):  

B. Can the prerequisite course(s) or test(s) be taken in the same term as this course?  
□ Yes  □ No

18. Corequisite(s) Course Number(s):  
Specify course number(s) and title(s):  
If the student does not register for the corequisite in the same term should web registration be blocked?  
□ Yes  □ No

19. Restriction(s):  

20. Consultation Reports Attached  
□ Yes  □ N/A

21. Additional Course Charges (must be approved by the Fee Policy Committee)  
Description of Fee (e.g. screening fee)  
Amount

22. Requires Teaching, Physical, or Financial Resources  
Not Currently Available (attach explanation)  
□ Yes  □ No
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<tr>
<th>Routing Sequence</th>
<th>Departmental Meeting</th>
<th>Departmental Chair</th>
<th>Other Faculty</th>
<th>Curric/Academic Committee</th>
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<tbody>
<tr>
<td>Name</td>
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Departmental Contact Person (name/phone/email)