New Course Proposal Form
(07/2004)

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

2. Teaching Department:  
   Earth and Planetary Sciences

3. Administering Faculty/Unit:  
   Science

4. Campus  
   (Downtown, Macdonald, Off Campus, Distance Ed, Other – specify)  
   Downtown  
   Term:  
   200901

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

6. Responsible Instructor  
   Michael Riedel, Boswell Wing

7. Course Title (Limit 30 Characters) - required for all courses:  
   Earth and Planetary Inference

8. Course Number(s)  
   Indicate course number & the number of terms spanned:  
   (tick all that apply)  
   Subject/course number:  
   EPSC 340  
   Course(s) Span:  
   ☐ 1 term  
   ☐ 2 consecutive terms (D1, D2)  
   ☐ 2 non-consecutive terms (N1, N2)  
   ☐ 3 consecutive terms (J1, J2, J3)

9. Course Title to Appear in the Calendar (optional)  
   (Limit 59 characters):  
   Earth and Planetary Inference

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

11. Rationale for new course  
    Most of Earth is inaccessible to direct observation. Accessible regions of Earth are often only so at great technological, financial, and physical effort. As a result, geological, geophysical, and geochemical datasets are typically too sparse to be amenable to classical methods of statistical analysis. In order to understand how Earth and other planets work, earth and planetary scientists use specialized mathematical tools to synthesize geological, geophysical, and geochemical measurements with conceptual models. These tools – drawn from the broad fields of inverse methods and time series analysis – will be used in this class to make quantitative inferences from real world geological, geophysical, and geochemical datasets.

12. Course Description  
    (as it will appear in the Calendar [maximum 50 words]):  
    (N.B. Faculty of Medicine must append complete course outline)  
    Introduction to modern techniques for combining geological, geophysical, and geochemical measurements with theoretical knowledge about Earth and other planets. Use of tools from time series analysis and inverse methods to build models and test hypotheses within the Earth and Planetary Sciences.

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.
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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<tbody>
<tr>
<td>Lecture</td>
<td>2</td>
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<tr>
<td>Lab</td>
<td>3</td>
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Total Hours per Week: 5
Total Number of Weeks: 13

15. Projected Enrolment:
25 students

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

17. Prerequisite(s) (Courses or Tests)
Specify course number(s) or name(s) of test(s):

Completion of U1 year in Earth & Planetary Sciences
or permission of instructor

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)

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>Amount</th>
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<tbody>
<tr>
<td>(e.g. screening fee)</td>
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22. Requires Teaching, Physical, or Financial Resources
Not Currently Available (attach explanation)
☐ Yes  ☑ No
### 23. Approvals:

<table>
<thead>
<tr>
<th>Routing Sequence</th>
<th>Departmental Meeting</th>
<th>Departmental Chair</th>
<th>Other Faculty</th>
<th>Curric/Academic Committee</th>
<th>Faculty</th>
<th>SCTP</th>
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<tbody>
<tr>
<td>Name</td>
<td>Boswell Wing</td>
<td>John Stix</td>
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**Departmental Contact Person (name/phone/email):**