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

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: 200709

6. Responsible Instructor  A. Cumming, G. Holder

7. Course Title (Limit 30 Characters) - required for all courses:
   Astrophysical Fluids

8. Course Number(s)
   Indicate course number & the number of terms spanned: (tick all that apply)
   Subject/course number: PHYS 643
   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):
   Note: This can ONLY be an expansion of word(s) abbreviated in the 30 character course title above.

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

11. Rationale for new course
   This proposed course is one of several changes to expand graduate core-level curriculum in astrophysics in the department of physics, as described in "Graduate Curriculum for Masters and Ph.D Degree Students in the Department of Physics, Specializing in Astrophysics." Following the 2000-6 expansion in astrophysics from two to eight faculty, and the expected expansion in the number of MSc and PhD-level students over the next decade, the proposed curriculum will provide coursework at the MSc and PhD level equal to that available at top-tier international programs.

12. Course Description
   (as it will appear in the Calendar [maximum 50 words]):
   (N.B. Faculty of Medicine must append complete course outline)
   Physics of astrophysical fluids: how it determines the behavior, formation, evolution, dissipation and death of astrophysical systems, including objects in hydrostatic balance, such as stars, or with inflows and outflows, such as disks and jets.

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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This proposed course is one of several changes to expand graduate core-level curriculum in astrophysics in the department of physics, as described in "Graduate Curriculum for Masters and Ph.D Degree Students in the Department of Physics, Specializing in Astrophysics." Following the 2000-6 expansion in astrophysics from two to eight faculty, and the expected expansion in the number of MSc and PhD-level students over the next decade, the proposed curriculum will provide coursework at the MSc and PhD level equal to that available at top-tier international programs.
14. Schedule Types(s):
(Enter all that apply – see course guidelines for a complete list.)
(i.e. Lecture, Labs, Tutorial)

<table>
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<th>Hours per Week</th>
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<tr>
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<tr>
<td>Total Number of Weeks:</td>
<td>13</td>
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</table>

15. Projected Enrollment: 10

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):
   
   none
   
   If the student does not register for the corequisite in the same term should web registration be blocked?
   ☐ Yes  ☑ No

19. Restriction(s):
   Enrollment in MSc/PhD program, or permission of
   
   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)  Addiong
   
   None.
### INFORMATION FOR ADMISSIONS, RECRUITMENT & REGISTRAR'S OFFICE

<table>
<thead>
<tr>
<th>Slot Course:</th>
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<td>Thesis Component:</td>
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### For Continuing Education Use

- CE Admin. Unit: [ ]
- CE Non-Grant Courses: [ ]
- Flat Rate: Cdn Flat Rate: [ ] Yes [ ] N/A

### 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>Charles Gale</td>
<td>Charles Gale</td>
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<td>Signature</td>
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**Departmental Contact Person**

Robert Rutledge, 398-6509, Rutledge@physics.mcgill.ca

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**C1-3**