1. Will this new course affect a current program?  
   Yes ☐  No ☒  
   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:  
   Term: 200701

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

6. Responsible Instructor  
   G. Holder, T. Webb

7. Course Title (Limit 30 Characters) - required for all courses:  
   Galaxies and Cosmology

8. Course Number(s)  
   Indicate course number & the number of terms spanned:  
   (tick all that apply)
   Subject/course number: PHYS 644
   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)
   Our current understanding of the universe, and tools that are used in developing this understanding. Large scale properties of galaxies in a cosmological context; the most important features of the expanding universe.

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.
   General relativity not a prerequisite.
14. Schedule Types(s):
(Enter all that apply – see course guidelines for a complete list.)
(i.e. Lecture, Labs, Tutorial)

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Hours per Week</th>
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Total Hours per Week: 3
Total Number of Weeks: 13

15. Projected Enrolment: 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) Amount
None.

22. Requires Teaching, Physical, or Financial Resources
Not Currently Available (attach explanation)
☐ Yes ☑ No
23. Approvals:

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<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 (name/phone/email): Robert Rutledge, 398-6509, Rutledge@physics.mcgill.ca