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

2. Teaching Department:  
   Atmospheric and Oceanic Sciences

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: 200601

6. Course Title (Limit 30 Characters) - required for all courses:  
   Science of Storms

7. Course Number(s)  
   Subject/course number:  
   ATOC 240  
   Course(s) Span:  
   ☒ 1 term  
   ☐ 2 consecutive terms (D1, D2)  
   ☐ 2 non-consecutive terms (N1, N2)  
   ☐ 3 terms (J1, J2, J3)

8. Course Title to Appear in the Calendar (optional)  
   (Limit 59 characters):  
   Science of Storms

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

10. Schedule Type(s):  
    (Enter all that apply – see form, STVSCHD in Banner for a complete list.)  
    (i.e. Lecture, Labs, Tutorial)  
    Hours per Week  
    -----------------  
    Lecture  3  
    -----------------  
    Total Hours per Week:  3  

    Total Number of Weeks:  13

11. Projected Enrolment:  
    100
12. 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

13. 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

14. Consultation Reports Attached
   ☑ Yes ☐ N/A

15. Additional Course Charges (must be approved by the Fee Policy Committee)
   Description of Fee (e.g. screening fee)   Amount
   
   16. Requires Teaching, Physical, or Financial Resources
       Not Currently Available (attach explanation)
       ☐ Yes ☑ No

17. Other Information (specify):

18. Course Description
   (as it will appear in the Calendar [maximum 50 words]):
   (N.B. Faculty of Medicine must append complete course outline)
   Physical processes associated with severe and hazardous weather affecting the Earth. Topics are taught at a fundamental level, without equations, to provide a complete and up-to-date understanding of such extreme events as blizzards, ice storms, tornadoes, hurricanes, floods and droughts.

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

20. Rationale
   Society is increasingly vulnerable to the effects of extreme weather. The combination of the development of an increasingly complex infrastructure and the net migration of the world’s population into low-lying coastal regions explains such a vulnerability.

   The goal of this course is to provide the student with an understanding of the fundamental concepts associated with the world’s most extreme and hazardous weather events. An overview of weather systems in the tropical, extratropical, and high-latitude atmospheres is provided, along with an examination of the impact of seasons on the incidence of extreme weather systems. The student is introduced to the concepts of temporal and spatial scales in the understanding of weather systems.

   A key to the fundamental understanding of extreme and hazardous weather systems is the operational weather observing system. The concepts of analyses and weather forecasting using traditional surface, upper-air, satellite, and radar measurements are used to understand the structure and processes associated with extreme weather phenomena. The most up-to-date research into each of the topics is presented to provide both non-science and science students a comprehensive insight into the physics and dynamics of weather systems.
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21. Approvals:

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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>
<td>Peter Yau</td>
<td>John R. Gyakum</td>
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<tr>
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<td>October 22, 2004</td>
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Departmental Contact Person (name/phone/email)  David Straub - 8995