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

2. Teaching Department:  Mathematics & Statistics

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:  200509
   [Retirement]

6. Responsible Instructor:  

7. Credit Weight
   (or CEU's for non-credit CE courses):
   [4]

   Old Credit Weight or CEU's (if applicable)
   [4]

8. Course Number(s)
   Indicate course number & the number of terms spanned:
   (tick all that apply)
   Subject/course number:  MATH 579

   Course(s) Span:
   [1] 1 term
   [x] 2 consecutive terms (D1, D2)
   [ ] 2 non-consecutive terms (N1, N2)
   [ ] 3 consecutive terms (J1, J2, J3)

9. Number Change From:  

10. Consolidation of Courses:  

11. Split of Multi-Term Course:  

12. Course Title (Limit 30 char.) - required for all courses.
   Numerical Diff. Eqns.

   Old Course Title (if applicable)
   

13. Course Title to Appear in the Calendar (Optional)
    (Limit 59 characters):
    Numerical Differential Equations

14. Rationale for revised course

    These are housekeeping changes taking into account the way in which this course is now given. The removal of MATH 578 as prerequisite makes this course accessible to students who do not want to take both courses and have a specific interest in the solution of differential equations.

15. New Course Description
    (as it will appear in the Calendar [maximum 50 words]):
    (N.B. Faculty of Medicine must append complete course outline)
    Numerical solution of initial and boundary value problems in science and engineering: ordinary differential equations; partial differential equations of elliptic, parabolic and hyperbolic type. Topics include Runge Kutta and linear multistep methods, adaptivity, finite elements, finite differences, finite volumes, spectral methods.

16. Old Course Description
    (may be found in the Calendar or Banner)
    Numerical solution of initial and boundary value problems in science and engineering: ordinary differential equations; partial differential equations of elliptic, parabolic and hyperbolic type. Topics include Runge Kutta and linear multistep methods, adaptivity, finite elements, finite differences, finite volumes, spectral methods, preconditioning and fast solvers.
17. 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.

18. Schedule Types(s):
(Enter all that apply – see course guidelines for a complete list.)

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

19. Projected Enrolment:

20. Revised Prerequisite(s) (Courses or Tests) (in full)
Specify course number(s) or name(s) of test(s):
MATH 375 and MATH 387 or permission of the 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

Old prerequisite course number(s) or test score title(s) (if applicable)
MATH 266 or MATH 375, MATH 317, MATH 319, MATH 387 or MATH 578; or the instructor's approval.

21. Revised Corequisite(s) Course Number(s) (in full):
Specify course number(s):

If the student does not register for the corequisite in the same term should web registration be blocked?
☐ Yes  ☐ No

Old corequisite(s) course numbers (if applicable):

22. Revised Restriction(s):

Old Restriction(s):

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

<table>
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<th>Amount</th>
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24. Requires Teaching, Physical, or Financial Resources
Not Currently Available (attach explanation)
☐ Yes  ☐ No

25. Consultation Reports Attached
☐ Yes  ☐ N/A
INFORMATION FOR ADMISSIONS, RECRUITMENT & REGISTRAR'S OFFICE

To be completed by the Faculty
Slot Course: [ ] Yes [ ] No
CIP Code

To be completed by ARR

For Continuing Education Use
CE Admin. Unit :
CE Non-Grant Courses:

Flat Rate: Cdn Flat Rate: [ ] Yes [ ] N/A

26. 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>Georg Schmidt</td>
<td>K. GowriSankaran</td>
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<td>Signature</td>
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Departmental Contact Person (name/phone/email)

Georg Schmidt  
February 01, 05