<table>
<thead>
<tr>
<th>1. Will this new course affect a current program? Yes ☐ No ☑</th>
<th>2. Teaching Department: Mining Metals and Materials Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>If &quot;yes&quot;, has a Program Revision Form been submitted concurrently? Yes ☐ No ☑</td>
<td>3. Administering Faculty/Unit: Faculty of Engineering</td>
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<td>5. Effective Term of Implementation (Ex. Sept. 2004 = 200409) Term: Downtown</td>
<td>4. Campus (Downtown, Macdonald, Off Campus, Distance Ed, Other – specify)</td>
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<tr>
<td>Term: 200801</td>
<td>6. Responsible Instructor Profs Raynald Gauvin and Isabelle Rouiller</td>
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<tr>
<td>7. Course Title (Limit 30 Characters) - required for all courses: Transmission EM</td>
<td>8. Course Number(s) Indicate course number &amp; the number of terms spanned: (tick all that apply)</td>
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<tr>
<td>Subject/course number: MIME 5XX</td>
<td>Course(s) Span: ☑ 1 term</td>
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<tr>
<td>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. Transmission Electron Microscopy</td>
<td>10. Credit Weight (or CEU's for non-credit CE courses): 3 credits</td>
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<tr>
<td>11. Rationale for new course Transmission electron microscopy (TEM) is an imaging and analytical technique to study the ultrastructure and composition of both biological and non-biological samples relevant to the life, materials and physical sciences. In the Facility for Electron Microscopy Research (FEMR), McGill has one of the best equipped facilities for electron microscopy research in the region. The FEMR supports and fosters the collaborative and multidisciplinary research activities of over sixty investigators from more than twenty departments in four faculties at McGill whose work has already had a major impact in the areas of biological, life, materials, and physical sciences. Associated with this research, there are more than thirty graduate students and PDF’s that are trained in the application of TEM techniques. However, there is no dedicated course for TEM at McGill. Creation of the proposed course will provide students with the opportunity to acquire basic and advanced knowledge in electron microscopy provided by highly qualified faculty with experience in the life, materials and physical sciences. With the acquisition of latest generation high-resolution TEM’s, the students will have the opportunity to have hands-on experience on state-of-the-art instrumentation. This will be a double-prefix course, since it will be administered by both the Faculty of Science and the Faculty of Engineering, and since it will be jointly taught and serve students from both faculties.</td>
<td></td>
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<tr>
<td>12. Course Description (as it will appear in the Calendar [maximum 50 words]): (N.B. Faculty of Medicine must append complete course outline) Comprehensive study of transmission electron microscopy (TEM). Theory, principles and practical applications of imaging, analysis and advanced sample preparation relevant to biological and non-biological materials.</td>
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<td>----------------------------------------------------------</td>
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<tr>
<td>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. 2 hours of lecture per week, 3 hours of laboratories per week with an optional 2 hours of tutorials per week. The maximum number of students is 20. For students in science, engineering and life sciences.</td>
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</tbody>
</table>
14. Schedule Types(s):  
(Enter all that apply – see course guidelines for a complete list.)  
(i.e. Lecture, Labs, Tutorial)  

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Labs</th>
<th>Tutorials (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours per Week:  
Total Number of Weeks: 13

15. Projected Enrolment:  
20

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

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

None

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

19. Restriction(s):  
Not open to students who have taken or are taking ANAT 5xx .

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

22. Requires Teaching, Physical, or Financial Resources  
Not Currently Available (attach explanation)  
☐ Yes  ☐ No
### INFORMATION FOR ADMISSIONS, RECRUITMENT & REGISTRAR'S OFFICE

<table>
<thead>
<tr>
<th>Slot Course:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Thesis Component:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**To be completed by the Faculty**

**To be completed by ARR**

**For Continuing Education Use**

#### 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>
</tr>
</thead>
</table>

**Name**

**Signature**

**Date**

**Departmental Contact Person**

(name/phone/email)

**CE Admin. Unit:**

**CE Non-Grant Courses:**

**Flat Rate: CdnFlat Rate: Yes No N/A**

C1-3