Wilkes University Curriculum Committee

PROPOSAL SUBMITTAL FORM

Directions:
- Use this set of forms for all proposals sent to the Curriculum Committee.
- Pages 1-3 of this document are required. Any unnecessary forms should be deleted from the packet before submissions. If multiple forms are needed (course addition, course deletion, etc.), simply copy and paste additional forms into this packet.
- Note that all new programs (majors and minors), program eliminations, significant program revisions and all general education core revisions must be reviewed and approved by the Provost and Academic Planning Committee (APC) prior to submission to the Curriculum Committee. The Provost will make the decision if a program revision requires APC review.
- Completed and signed forms are due no later than the second Tuesday of every month. Submit one signed original hard copy and a scanned electronic copy with all signatures to the Chair of the Curriculum Committee.

1. Originator: Fred Sullivan  
   Mathematics and Computer Science  
   4727 sullivan@mathcs.wilkes.edu

2. Proposal Title: Applied Math Changes

3. Check only one type of proposal: (double click on the appropriate check box and change default value to “checked”).

☐ New Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.
☐ Elimination of Program. (Major or Minor Degree Programs). This requires prior review and approval by the Provost and APC.
☐ Program Revision. Significant revisions to a program require review and approval by the Provost. The Provost determines if review and approval by APC is necessary.
☐ General Education Revision. Submissions only accepted from the General Education Committee (GEC). Must be reviewed and approved by the Provost.
☐ Creation of new departments, elimination of existing department. This requires prior review and approval by the Provost and APC.
☒ Course additions or deletions not affecting programs (such as elective courses, transition of “topics” courses to permanent courses).
☐ Change in course credit or classroom hours.
☒ Incidental Changes. Includes changes in course/program title, course descriptions, and course prerequisites. (Although these changes do require approval by the Curriculum Committee, they do not go before the full faculty for approval).
☐ Other (Specify)
4. Indicate the number of course modification forms that apply to this proposal:

   _____ Course Addition Form (plus syllabi)
   ____1__ Course Deletion Form
   ____2__ Course Change Form

5. Executive Summary of Proposal.
   Briefly summarize this proposal. The breadth and depth of this executive summary should reflect the complexity and significance of the proposal. Include an overview of the proposal, background and reasoning behind the proposal and a description of how the proposal relates to the mission and strategic long-range plan of the unit and/or university. For incidental changes a one or two sentence explanation is adequate.

   Repackage the courses in the applied math sequence (MTH 361/362) to make the content clearer, combine MTH 362 with MTH 413 (eliminating MTH 413), and eliminate redundancy with MTH MTH 211 and MTH 212.

6. Other specific information. (Not applicable for incidental changes.)

   What other programs, if any, will be affected by this proposal? Describe what resources are available for this proposal. Are they adequate? What would be the effect on the curriculum of all potentially affected programs if this proposal were adopted? Include any potential effects to the curriculum of current programs, departments and courses.

   MTH, ME, EE, EEGR, and Physics will be affected to some degree. These courses are electives for math, engineering and physics. The courses are currently offered on demand, but the demand is increasing. Repackaging the courses might make them more attractive and they would therefore need to be offered more often.

7. Program Outline. (Not applicable for incidental changes).
   A semester-by-semester program outline as it would appear in the bulletin for a new program or any modified program with all changes clearly indicated.
8. Signatures and Recommendations. (please date)
   - Signatures of involved Department chair(s) and Dean(s) indicate agreement with the proposal and that adequate resources (library, faculty, technology) are available to support proposal.
   - If a potential signatory disagrees with a proposal he/she should write “I disagree with this proposal” and a signed statement should be attached to this submission.

Barbara Bracken, Chair, Mathematics  
Print Name/Title  Signature  Date  
Department chair(s) of all potentially affected programs

David Casey, Chair, Electrical Engineering & Physics  
Print Name/Title  Signature  Date  
Department chair(s) of all potentially affected programs

Harry J. Costello, Mechanical Engineering  
Print Name/Title  Signature  Date  
Department chair(s) of all potentially affected programs

Brian E. Whitman, Env. Eng. & Earth Sciences  
Print Name/Title  Signature  Date  
Department chair(s) of all potentially affected programs

Teresa M. Wignot  
Print Name/Title  Signature  Date  
Dean(s) of any potentially affected College/School.

Registrar  
Print Name  Signature  Date

Provost (For new programs, significant revisions and revisions to the General Education Program revisions only).

   Provost should check here if this proposal is a program revision AND the significance of the revision requires review and approval by APC prior to Curriculum Committee.
Chair, Academic Planning Committee. For new programs, program revisions sent via the provost. Signature indicates that the proposal has been reviewed and approved by APC.

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

Chair, General Education Committee. For revisions to General Education program only.
(Signature indicates that the proposal has been approved by GEC).
Wilkes University Curriculum Committee
COURSE DELETION FORM

1. Course Title: Functions of Several Variables

2. Course Number: 413

3. Course Credit Hours: 3
   Classroom Hours: 3   Lab Hours:     Other:     

4. Effective date of course deletion (semester/year)
   -----------------------------------------------
   2015 ------------------------------------------
Wilkes University Curriculum Committee
COURSE CHANGE FORM

Directions: Use this form to change information relating to an existing course. Please note, changes to course number require separate course addition/deletion forms (not this form!). Only indicate changes that are proposed (existing and proposed), other fields should be left blank.

Course Number: MTH 361
Course Title: Applied Math I

<table>
<thead>
<tr>
<th>Course Credit hours. (Indicate classroom, lab or “other” hours.)</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applied Math I</td>
<td>Partial Differential Equations</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Prerequisites</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 211 and MTH 212</td>
<td>MTH 211</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Description (as proposed for Bulletin)¹</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intended for physical science and engineering students. Topics include inner product spaces, operator algebra, eigenvalue problems, Sturm-Liouville theory, Fourier series, and partial differential equations. Offered in the fall semester when demand warrants. Fee: $40. Prerequisites: MTH 211 and 212, or consent of the instructor.</td>
<td>Partial differential equations and boundary value problems, inner product spaces, orthogonal functions, eigenvalue problems, Sturm-Liouville equations, Fourier series, Fourier transforms, Green's functions, and classical equations of engineering and physics. Fee: $40. Prerequisite: MTH 211. Offered fall of even years.</td>
<td></td>
</tr>
</tbody>
</table>

¹ Course descriptions provide an overview of the topics covered. If the course is offered on a scheduled basis, i.e. every other year, or only during a set semester, note this in the description. Course descriptions should be no more than two to three sentences in length.
Wilkes University Curriculum Committee  
COURSE CHANGE FORM

Directions: Use this form to change information relating to an existing course. Please note, changes to course number require separate course addition/deletion forms (not this form!). Only indicate changes that are proposed (existing and proposed), other fields should be left blank.

Course Number: MTH 362  
Course Title: Applied Math II

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Credit hours. (Indicate classroom, lab or &quot;other&quot; hours.)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Course Prerequisites</td>
<td>MTH 211 and MTH 212</td>
<td>MTH 212</td>
</tr>
<tr>
<td>Course Description (as proposed for Bulletin)</td>
<td>Intended for physical science and engineering students. Topics include systems of linear differential equations, nonlinear differential equations, qualitative, numerical, and finite difference methods, theorems of Green and Stokes, and the Divergence Theorem. Offered in the spring semester when demand warrants. Prerequisites: MTH 211 and 212 or consent of the instructor.</td>
<td>Topics from advanced calculus, including matrix representation of differentials and the multivariable chain rule, vector calculus, curvilinear coordinates, tensors, change of variables in higher dimensions, improper multiple integrals, applications of line and surface integrals, differential forms and the general Stokes' theorem, potential theory, and Taylor's formula for functions of several variables. Fee: $40. Prerequisite: MTH 212. Offered fall of odd years.</td>
</tr>
</tbody>
</table>

1 Course descriptions provide an overview of the topics covered. If the course is offered on a scheduled basis, i.e. every other year, or only during a set semester, note this in the description. Course descriptions should be no more than two to three sentences in length.