## Curriculum Change Form (Present only one proposed curriculum change per form) (Complete only the section(s) applicable.)

Part I

| (Check one)$\quad$ New Course (Parts II, IV) | Department Name | Mathematics and Statistics |  |
| :---: | :---: | :---: | :---: |
|  | College | Arts and Sciences |  |
| X Course Revision (Parts II, IV) | *Course Prefix \& Number | MAT 540 |  |
| Hybrid Course ("S, " "W") | *Course Title | Introductory Applied Mathematics |  |
| New Minor (Part III) | *Program Title |  |  |
| Program Suspension (Part III) | *Provide only the information relevant to the proposal. | If Certificate, indicate Long-Term (University) or Short-Term (Departmental) |  |
| Proposal Approved by: | Date | uncil on Academic Affairs | Date |
| Departmental Committee | 2/9/2015 Coun |  | 9/17/15 |
| College Curriculum Committee | 2/23/2015 Fac | aculty Senate** | NA |
| General Education Committee* | NA Board | oard of Regents** | NA |
| Teacher Education Committee* | NA EFF | EFFECTIVE ACADEMIC TERM*** | FALL 2016 |
| Graduate Council* | 03/27/2015 |  |  |
| *If Applicable (Type NA if not app | plicable.) |  |  |
| **Approval needed for program revisicher | visions or suspensions. |  |  |
| ***To be added by the Registrar's O | Office after all approval is re | eived. |  |

## Completion of A, B, and C is required: (Please be specific, but concise.)

A. 1. Specific action requested: (Example: Increase the number of credit hours for ABC 100 from 1 to 2.)

Revise course title and course description to more accurately reflect course content.
A. 2. Proposed Effective Academic Term: (Example: Fall 2012)

Fall 2016
A. 3. Effective date of suspended programs for currently enrolled students: (if applicable)
B. The justification for this action:

This course is being revised to meet current needs.
C. The projected cost (or savings) of this proposal is as follows:

## Personnel Impact:

None
Operating Expenses Impact:
None
Equipment/Physical Facility Needs:
No change
Library Resources:
No change

## Part II. Recording Data for New, Revised, or Dropped Course

(For a new required course, complete a separate request for the appropriate program revisions.)

1. For a new course, provide the catalog text.
2. For a revised course, provide the current catalog text with the proposed text using strikethrough for deletions and underlines for additions.
3. For a dropped course, provide the current catalog text.

New or Revised* Catalog Text
(*Use strikethrough for deletions and underlines for additions. Also include Crs. Prefix, No., and description, limited to 35 words.)
MAT 540 Introductory Applied MathematicsApplications of Partial Differential Equations. (3) A. Prerequisite: MAT 353 with a minimum grade of "C." Techniques and applications of: vector analysis, matrix theory, linear and autonomous systems of differential equations, special functions, operational methods, Sturm Liomwille heoryWave, heat/diffusion and potential/Laplace equations, separation of variables, orthogonal sets of functions, Fourier series, boundary value problems, Fourier integrals, maximum principles, the Cauchy problem.

Part IV. Recording Data for New or Revised Course (Record only new or changed course information.)


Proposed General Education Element: Please mark (X) in the appropriate Element or Elements ( e.g. - 4B(3) X ).

| Element 1 (9) | Element 2 (3) | Element 3 (6) | Element 4 (6) | Element 5 (6) | Element 6 (6) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1A (3) | 2 (3) | 3A (3) | 4A (3) | 5A (3) | 6 (6) |
| 1B (3) |  | 3B (3) | 4B (3) | 5B (3) |  |
| 1C (3) |  | or 3A/B <br> Integrated A\&H(6) | or 4A/B <br> Integrated Sciences(6) |  |  |

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Part I

| (Check one) <br> New Course (Parts II, IV) | Department Name | Mathematics and Statistics |  |
| :---: | :---: | :---: | :---: |
|  | College | Arts and Sciences |  |
| X Course Revision (Parts II, IV) | *Course Prefix \& Number MAT 740 <br> *Course Title Introductory Applied Mathematics |  |  |
| Hybrid Course ("S," "W") |  |  |  |
| New Minor (Part III) | *Program Title |  |  |
| Program Suspension (Part III) Program Revision (Part III) | *Provide only the information relevant to the proposal. | If Certificate, indicate Long-Term (University) or Short-Term (Departmental) |  |
| Proposal Approved by: | Date |  | Date |
| Departmental Committee | 2/9/2015 Co | Council on Academic Affairs | 9/17/15 |
| College Curriculum Committee | 2/23/2015 Fa | Faculty Senate** | NA |
| General Education Committee* | NA Bo | Board of Regents** | NA |
| Teacher Education Committee* | NA EF | EFFECTIVE ACADEMIC TERM*** | FALL 2016 |
| Graduate Council* | 03/27/2015 |  |  |
| *If Applicable (Type NA if not app | plicable.) |  |  |
| ${ }^{* *}$ Approval needed for program rev | visions or suspensions. |  |  |
| ***To be added by the Registrar's O | Office after all approval is re | eived. |  |

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A. 1. Specific action requested: (Example: Increase the number of credit hours for ABC 100 from 1 to 2.)

Revise course title and course description to more accurately reflect course content.
A. 2. Proposed Effective Academic Term: (Example: Fall 2012)

Fall 2016
A. 3. Effective date of suspended programs for currently enrolled students: (if applicable)
B. The justification for this action:

This course is being revised to meet current needs.
C. The projected cost (or savings) of this proposal is as follows:

## Personnel Impact:

None
Operating Expenses Impact:
None
Equipment/Physical Facility Needs:
No change
Library Resources:
No change

## Part II. Recording Data for New, Revised, or Dropped Course

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New or Revised* Catalog Text
(*Use strikethrough for deletions and underlines for additions. Also include Crs. Prefix, No., and description, limited to 35 words.)
MAT 740 Introductory Applied MathematicsApplications of Partial Differential Equations. (3) A. Techniques and applications of: vector analysis, matrix theory, linear and autonemous systems of differential equations, special functions, operational methods, Sturm-Lioutwille theoryWave, heat/diffusion and potential/Laplace equations, separation of variables, orthogonal sets of functions, Fourier series, boundary value problems, Fourier integrals, maximum principles, the Cauchy problem. It is strongly recommended that students have completed a course in differential equations.

Part IV. Recording Data for New or Revised Course (Record only new or changed course information.)


Proposed General Education Element: Please mark (X) in the appropriate Element or Elements ( e.g. - 4B(3) X ).

| Element 1 (9) | Element 2 (3) | Element 3 (6) | Element 4 (6) | Element 5 (6) | Element 6 (6) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1A (3) | 2 (3) | 3A (3) | 4A (3) | 5A (3) | 6 (6) |
| 1B (3) |  | 3B (3) | 4B (3) | 5B (3) |  |
| 1C (3) |  | or 3A/B <br> Integrated A\&H(6) | or 4A/B <br> Integrated Sciences(6) |  |  |

