

# PROPOSAL TO CREATE, REVISE OR DELETE A COURSE

Department **Math**

(Proposed Course Number) **4365**

Proposed Course Title **Topology**

| Nature of Proposed Change |                                     |
|---------------------------|-------------------------------------|
| New Course                | <input checked="" type="checkbox"/> |
| Revised Course            | <input type="checkbox"/>            |
| Deleted Course            | <input type="checkbox"/>            |
| Number Change             | <input type="checkbox"/>            |
| Adding Prerequisites      | <input type="checkbox"/>            |
| Description Change        | <input type="checkbox"/>            |
| Title Change              | <input type="checkbox"/>            |
| Editorial Change          | <input type="checkbox"/>            |
| (Old Number _____)        |                                     |

| Common Curriculum Status                                          |                                                                     |
|-------------------------------------------------------------------|---------------------------------------------------------------------|
| Presently in Common Curriculum                                    | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Now Proposed for Common Curriculum                                | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| If yes, which Understanding or Skill                              | _____                                                               |
| Estimated number of seats added or deleted from the Understanding | _____                                                               |

Rationale (Explain why the change is being proposed, its relation, if any, to the major or minor program, and what curricular improvements will result.):

**The subject of Topology is of fundamental importance in mathematics. It complements and expands techniques learned in the classical subjects of Real Analysis and Abstract Algebra, currently taught in MATH 3360 and 3362, respectively. A course in Topology would allow students to learn and solidify the axiomatic and abstract treatment of mathematics as well as explore other fields of mathematics, such as differential geometry, algebraic topology, and homological algebra.**

Curricular Impact Statement (What curricular trade-offs will result if this course is approved?):

**This course would provide preparation to our students who wish to continue their education in graduate school as well as contribute to our goal to increase the number of 4000 level courses offered by the Mathematics department.**

Teaching Resources (Explain any impact on personnel, faculty contact hours, Common Curriculum and other course offerings, and involvement in First Year Seminar.):

**We do not foresee any increase in contact hours or impacts on course offerings.**

Proposed Bulletin Description:

**Introduction to the study of basic topological concepts including topological spaces, continuous functions, homeomorphisms, separation properties, connectedness, and compactness. Additional topics may be chosen from algebraic or geometric topology. Fall, alternate years.**

**Prerequisite: MATH 3360 or 3362 or consent of instructor.**

Present Bulletin Title and Description:

**n/a**

|                                                                                                                                                                                                                                                                                                                                          |                                                                                                 |                                         |                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|
| Instructor(s)<br><u>E. Cabral Balreira</u>                                                                                                                                                                                                                                                                                               | IS THIS COURSE                                                                                  |                                         |                                        |
| Semester course will first be offered<br><u>Fall 2008</u>                                                                                                                                                                                                                                                                                | - cross-listed with another department?                                                         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Effective date of change<br>_____                                                                                                                                                                                                                                                                                                        | If so, which one? _____                                                                         |                                         |                                        |
| Frequency of offering<br><u>Fall, alternate years</u>                                                                                                                                                                                                                                                                                    | - a prerequisite for another course?                                                            | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Is a similar course offered in another department?<br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                                                                                                                | If so, which one(s)? _____                                                                      |                                         |                                        |
| If yes, attach explanation.                                                                                                                                                                                                                                                                                                              | - part of an interdisciplinary program?                                                         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| If this course will demand additional library resources, equipment, renovation and/or remodeling, computer facilities and time, or have a significant impact on workload or budget, have you arranged for these resources?<br>Yes <input type="checkbox"/> No <input type="checkbox"/> None required <input checked="" type="checkbox"/> | If so, which one(s)? _____                                                                      |                                         |                                        |
| Are there needs for technological resources not currently available on campus?<br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                                                                                    | - a prerequisite or specific requirement for a major or minor in another department or program? | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
|                                                                                                                                                                                                                                                                                                                                          | If so, which one(s)? _____                                                                      |                                         |                                        |
|                                                                                                                                                                                                                                                                                                                                          | If any of the above responses is "Yes", have you contacted the appropriate department(s)?       | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            |
|                                                                                                                                                                                                                                                                                                                                          | Can a student enter this course with permission of the instructor without the prerequisite(s)?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## ROUTING

Please list the appropriate departments that have reviewed and endorsed this proposal: \_\_\_\_\_

Date: \_\_\_\_\_

