MTH 333: Fundamental Concepts of Topology

Catalog Description: Open and closed sets, continuity, compactness, connectedness, winding number, fixed point theorems in the plane. (Writing Intensive Course)

Credits: 3
Terms offered: F
Prerequisites: MTH 341 or MTH 355 required.
Meets: Three 50 minute lectures weekly.
Course Content: The course content includes the following:

1. Open and closed sets.
2. Continuity, compactness, and connectedness.
3. Winding number.
4. Fixed point theorems in the plane.


Learning Outcomes: A successful student in MTH 333, a writing intensive course in mathematics, is expected to be able to do the following.

1. Develop mathematical knowledge and maturity through frequent practice of informal and formal writing.
2. Demonstrate knowledge of mathematical writing appropriate to various contexts and audiences.
3. Demonstrate the ability to compose a document or documents in mathematics, of at least 2000 words, through multiple stages of writing including drafting, documentation of sources, and substantive revision after receiving feedback.

Additionally, a successful student in MTH 333 is expected to satisfy the following learning outcomes for writing intensive coursework as specified by OSU:

1. Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.
2. Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline.
3. Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft.

**Evaluation of Student Learning:**
There will be weekly homework of several types: traditional problems, lab reports, reading assignments, and writing assignments. All written work will be marked on both content and presentation.

Exams: There will be an in-class midterm at a time to be announced.

Grades: Your grade will be based equally on the term paper, the midterm, and the other assignments. A substantial fraction of the required written work will be corrected but not graded.

**Students with Disabilities:** Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

**Student Conduct:** All students are expected to obey to OSU’s student conduct regulations. Here is the link to OSU’s Statement of Expectations for Student Conduct: http://oregonstate.edu/admin/stucon/achon.htm

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