

Syllabus MATH 4403 for Spring 2012

- General Information

- MATH 4403 Mathematical Modeling
- Faculty Information:
Scott Dillery
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270-384-8105
Office hours: MWF 9:30 - 11:00 am, TR 10:45 - 11:30 am, TR 2:30 - 4:00 pm

- Course Information

- Catalogue Description:
4403 Mathematical Modeling **3 credit hours**
An introduction to the application and modeling processes of mathematics. This course emphasizes continuous models to include deterministic and stochastic models. The use of computer packages and algorithms will be incorporated into the solution process. An individual project is required. *Prerequisite:* MATH 3314 or MATH 3323.
- Required Text:
An Introduction to Mathematical Modeling, by Edward A. Bender
Dover Publications, Inc., New York 2000
ISBN: 978-0486411804
- Course Objectives:
 - * To develop students' ability to represent concepts and processes with mathematical constructs
 - * To develop students' ability to determine the implications of a mathematical solution obtained from a mathematical model
 - * To develop students' ability to communicate
- Student Learning Outcomes:
 - * The student will practice her or his numeracy skills:
 - accurately explains information (content) presented in a mathematical form;
 - converts and connects information (content) with the appropriate quantitative representation (form);
 - performs calculations necessary to transform data to fit a mathematical model;
 - makes judgments on the appropriateness of a mathematical model to fit specific data;
 - gives assumptions used in making a mathematical model;
 - uses data and mathematical models to make an argument for the solution of problem.
 - * The student will practice her or his oral communication skills:
 - makes the content of the presentation cohesive;
 - chooses language that is imaginative, memorable, compelling, and appropriate to audience;
 - uses delivery techniques that make the presentation compelling and speaker appear polished and confident;

- Faculty/College Policies

- Academic Support:

- Academic Success Center

- The Academic Success Center offers peer tutoring to aid students in completing class assignments, preparing for exams and improving their understanding of content covered in a particular course. In addition, computers are available for student use. Students are encouraged to utilize this Center as a resource for improving study strategies and reading techniques. The Center also offers assistance with other academic problems resulting from documented learning disabilities. All services are free of charge to all Lindsey Wilson College students (students with learning disabilities are responsible for providing documentation from an appropriate outside professional source such as a professional evaluation or school IEP). Please contact Maretta Garner, Tutor Coordinator at 384 - 8037 for further information and assistance.

- Writing Center and Mathematics Center

- The Writing Center (located in the Slider Humanities & Fine Arts Building), and the Mathematics Center (located in the Fugitte Science Building) are available for specialized tutoring at no charge to students. Please contact Jared Odd, Writing Center Coordinator, at 384-8209 or Linda Kessler, Math Center Coordinator, at 384-8115 for further information and assistance.

- Academic Integrity:

- Academic integrity is essential to the existence of an academic community. Every student is responsible for fostering a culture of academic honesty, and for maintaining the integrity and academic reputation of Lindsey Wilson College. Maintaining a culture that supports learning and growth requires that each student make a commitment to the fundamental academic values: honesty, integrity, responsibility, trust, respect for self and others, fairness and justice.

- To foster commitment to academic integrity, faculty are asked to require each student to place and sign the following Honor Code on tests, exams and other assignments as appropriate: *On my honor as a student, I have neither given nor received any unauthorized aid on this assignment/exam.*

- Violations of the academic integrity policy include cheating, plagiarism or lying about academic matters. Plagiarism is defined as any use of another writer's words, concepts, or sequence of ideas without acknowledging that writer by the use of proper documentation. Not only the direct quotation of another writer's words, but also any paraphrase or summary of another writer's concepts or ideas without documentation is plagiarizing that writer's materials. Academic dishonesty is a profoundly serious offense because it involved an act of fraud that jeopardizes genuine efforts by faculty and students to teach and learn together. It is not tolerated at Lindsey Wilson College.

- Students who are determined to have plagiarized an assignment or otherwise cheated in their academic work or examinations may expect an F for the activity in question or an F for the course, at the discretion of the instructor. All incidents of cheating or plagiarism are reported by the instructor to the Academic Affairs Office along with copies of all relevant materials. Each instance of cheating or plagiarism is counted separately. A student who cheats or plagiarizes in two assignments or tests during the same semester will be deemed guilty of two offenses. If the evidence is unclear, or if a second offense occurs, the VP for Academic Affairs or Associate Dean to move the student before

4. If either the student or the faculty member desired to appeal the decision of the Division Chair, the student or faculty member may, within seven (7) days by written request to the chair, ask that the matter be reviewed by a Grade Appeals Panel convened by the Academic Affairs Office.
5. If the disputed grade is assigned at the end of a fall or spring semester and the student and faculty member cannot meet to resolve the issue, the student should contact the faculty member by e-mail within seven (7) days of receipt of the disputed grade. If the issue cannot be resolved by e-mail within the time limit, steps 2, 3, and 4 of the appeal may extend into the beginning of the semester immediately following receipt of the disputed grade by following the timeline above.

A student who wishes to question a final grade should follow the procedure below:

1. Confer with the faculty member who assigned the disputed grade.
2. If the disputed cannot be resolved, a written request for a grade appeal must be submitted to the Academic Affairs Office before the first day of the semester following the one in which the grade was issued. The written request must include the specific bases for the appeal.
3. The Academic Affairs Office will convene a Grade Appeals Panel, comprised of the Vice President for Academic Affairs, the Associate Academic Dean, and the chair of the academic unit which houses the course for which the grade is appealed. If one of the members is the faculty member who issued the grade, an alternate will be appointed. The student and the faculty member may appear separately before the panel to explain their positions. The hearing is non-adversarial. Neither the faculty member nor the student may be accompanied by other individuals to the meeting of the Grade Appeals Panel. The Grade Appeals Panel will notify the student of its decision, if possible, within seven (7) days of the meeting.

– Cell Phone Policy:

Student cell phones will be off during class time unless prior arrangement is made with the instructor.

– Adding/Dropping a Course:

Students enrolled in the following courses cannot drop these classes during the semester: READ 0713, 0723, 0733, 0903, 1013, and 1023; STSK 1003; ENGL 0903 and 0904; and ESL 0803, 0804 and 0854.

For undergraduate classes at the Columbia campus, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the advisor and the instructor for each course involved as indicated on the Add/Drop Form. The change must be reported to the Business Office and the Registrar's Office on an Add/Drop Form, which may be obtained from the Registrar's Office. For AIM courses, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the Director of the Evening Program. For courses taught at Community sites, adding a course, dropping a course, or changing from one section of a course to another section of the same course requires the approval of the Site Coordinator for the campus. Permission to add courses will not be given after the last date for late registration. Authorization for dropping a course will not be approved after more than 75

May 14, 2012 - Final grades due