

MATH 302, Fall 2008
Transition to Higher Mathematics

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OFFICE Hrs: M 11-2, W 11-1

TEXT: Ian Stewart & David Tall, The Foundations of mathematics, Oxford

GRADING:

Attendance	5 %
Homework	15 %
Quizzes	10 %
Tests (2)	40 %
Final	30 %

ATTENDANCE: **Required.** If your attendance is satisfactory (no more than 3 absences), you receive full credit for attendance. Use your 3 “**personal days**” wisely.
Asking questions, providing comments and remarks should be your regular behavior during our meetings.

HOMEWORK: Typically, homework will be assigned every Friday and collected next Friday.

STUDYING: Besides reading and doing homework, you need to study (rewrite, rething, complete and master) the material of our every meeting.

QUIZZES A few pop-up quizzes will be offered. There will be **no** makeup quizzes.

GRADE SCALE: Grades **A B C D** correspond to min **90 80 70 60** % respectively.

WEB PAGES: Go to www.math.siu.edu . Choose “**courses**”, then “**Fall 2006**”, then “**302 Kocik.**”
You should arrive at: <http://www.math.siu.edu/kocik/classes/m302/m302.htm>

COURSE GOALS: Transition from "problem solving" to "theorem proving." Rethinking the meaning of mathematics as a human endeavor. Learning mathematical language, communication and proof techniques. Our meetings will comprise three concurrent streams:

1. **What is mathematics** — different aspects of math; what is it, how math is possible, how is it organized (axiomatic paradigm) and other philosophical or cultural questions.
2. **History of math** — some interesting historical issues, mathematical heritage, the place of math in the history of civilization. Also historically important theorems specially the ones that introduced new ideas to proof technique (here proofs will be outlined only) or to the scope of mathematics.
3. **Math foundations** — the rudiments of logic, set theory, relations, functions, cardinality, number systems and other basic mathematical subjects. Stressed will be: (i) techniques of proofs; (ii) the language (and symbolism) of mathematical writing; (iii) precision and correctness.

Emergency Procedures. Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT's website at www.bert.siu.edu, Department of Safety's website www.dps.siu.edu (disaster drop down) and in Emergency Response Guideline pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. **It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.** The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.