

History of Mathematics Syllabus



math 320
3 credits
bu 106
mwf - 12:00 noon

texts:

dunham, william. (1991). *journey through genius: the great theorems of mathematics*. new york: penguin books. (required).

lewis, s.m. (ed.). (2010). *source readings in the history of cosmological thought*. cwu coursepack.

description:

we will study the foundations of calculus, ending with a brief introduction to the life and works of isaac newton and gottfried w. leibniz. during the course of the quarter you will read and learn some of the great theorems of mathematics, work problems with eudoxus, euclid, eratosthenes, aristarchus, archimedes, kepler, descartes, fermat, and napier to name a few.

this class is designed for prospective teachers of secondary school mathematics. it is taught with the understanding that a grasp of the historical and intellectual context of the development of mathematics is essential for effective instruction.

there are some links in the left sidebar of this page. take the time to explore what some people in other universities are interested in. there are other possibly useful links back at [my home page](#).

check out the [fall 2010 class calendar](#).

evaluation:

your evaluation will be based on the following:

- o 60% - two midterms
- o 30% - final examination
- o 10% - notebook
- o 0% - quizzes

the midterms will have two parts: part one will contain a variety of problems that we will have worked on during the quarter, part two will consist of the great theorems of mathematics as presented by dunham in *journey through genius: the great theorems of mathematics*. **you must read the text thoroughly and completely in order to have a chance to pass this course.** the final will contain the same two parts plus a part three with essay questions.

your required notebook must be single-subject (i don't want your math 324 notes), neat and organized, with worked problems in a separate section. i will not accept anything less. i will collect selected homework assignments and we will have several unannounced, but straight-forward, quizzes to help you see where you stand regarding the content of the course.

if you have any questions or comments, feel free to come by my office or e-mail me at the address below.

student learner outcomes

the most important things you learn in school are not going to be measurable, sorry. in fact, the absolute best service a list of 'student learner outcomes' could possibly provide is as a random sample of behavioral objectives. that said, at the end of this course, you will have a reasonable facility (as measured by the evaluation procedures described above) in constructing sound mathematical proofs with a variety of techniques, in reading and understanding difficult source material in the history of science and mathematics, and in identifying and discussing several major themes in the historical development of mathematics.

note

students with disabilities who wish to set up academic adjustments in this class should give me a copy of their confirmation of eligibility for academic adjustments from the disability support services office

scott m. lewis
hertz 225
skype me at:
fax: 963-3226
hours: m,w,f 11:00 am
else, by appointment, gleefully
accepted

links:

- [general history of mathematics](#)
(from trinity college, dublin)
- [historical timeline](#) (from clark university, worcester, massachusetts)
- [aristotle: the four causes](#)
- [galileo: letter to the grand duchess](#)

reading questions:

- [as certain as the planetary orbits, pierre simon laplace](#)
- [why study the classics?, calvino](#)
- [on the heavens, aristotle](#)
- [osiander's forward](#)

miscellaneous:

- [chapter study questions](#)
- [homework checklist](#)

 [sample exam questions](#)

so that we can meet in order to discuss how the approved adjustments will be implemented in this class. students with disabilities without this form should contact the disability support services office, bouillon 205 or dsrecept@cwu.edu or 963-2171 as soon as possible.

fun with H1N1

if you have a severe respiratory or influenza-like illness (ILI) (high fever, aches, chills, cough) **you should not come to class until you are without fever for 24 hours without the aid of fever-reducing medication.** if your absences are related to a severe respiratory or flu-like illness, you will be given the opportunity to make up your assignments and class content without penalty. it is your responsibility to notify your instructor *in advance* when absent due to H1N1. faculty is under no obligation to excuse class absences related to sickness. If you are pregnant, work with your instructor to prevent exposure to H1N1. you should utilize the following precautions to prevent H1N1 exposure:

- 1) frequent hand washing and carry a bottle of alcohol-based hand sanitizer with you at all times.
- 2) cough etiquette (grab your shoulder and cough into your elbow).
- 3) place used tissues immediately in the trash, followed by washing your hands.
- 4) use CDC-approved disinfectants on shared surfaces such as doorknobs, desks, etc.
- 5) Stay home if you have a severe respiratory or flu-like illness.

If you are concerned you may have H1N1, notify student health. plan for potential absences and assure you have access to the internet and blackboard for assignments. regardless of your H1N1 flu status, you must complete the requirements of the course to receive a passing grade.

no, no, no!

no late assignments, no early test, no late tests, no make-up tests (including finals ... be there).



| post no bills |

fall 2010

[scott m. lewis, slewis@fulbrightmail.org](mailto:scott.m.lewis,slewis@fulbrightmail.org)
there's no place like [home](#).