Syllabus for MATH 280-01

Mathematics Seminar, Spring 2015 http://jamesrohal.com/teaching/spring-2015-math-280-01/

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Office Hours: See http://jamesrohal.com/schedule/

Description: A course focusing on mathematical research, presentation skills, and quantitative literacy. Intended for second year B.S. mathematics students to serve as a bridge to higher mathematics and research. Open to B.A. mathematics and 5-Adult majors.

Prerequisite: Grades of C or better in MATH 210 and MATH 373.

Course Objectives:

- Develop and improve oral presentation skills.
- Improve writing skills so that one can communicate mathematical ideas.
- Learn techniques useful for doing mathematical research.
- Develop the ability to formulate and solve mathematical problems.

Text: How to Solve It: A New Aspect of Mathematical Method by George Pólya.

Attendance: Attendance is mandatory and is part of your grade. I will pass a seating chart around the first week of class. You are expected to sit in your assigned seat the remainder of the semester and attend all classes on time. Arriving late for a class or leaving early is very disruptive of class. If you need to leave early, please let me know at the beginning of class.

Assignments: There will be a variety of small assignments given through out the semester. These will each be graded using the scale: 3 (great), 2 (good), 1 (average), 0 (did not attempt, not good).

Final Paper: You will be assigned one of the following mathematicians: Joseph-Louis Lagrange, Joseph Fourier, Évariste Galois, Adrien-Marie Legendre. You must research your mathematician and write a paper and present a 15-20 minute presentation on his life. The paper and presentation should *focus on the mathematician's scientific contributions*. Any citations in the paper should be included and a bibliography should be attached.

First Draft of Paper Due March 20 First Draft of Slides Due March 27 Second Draft of Paper Due April 17 Second Draft of Paper Due April 24

Exams: There will be no exams.

Make-up Policy: If you are absent the day of an assignment is due, then the score for that item will be zero unless you and I discuss it, and we both agree that a make-up is appropriate. Adjustments will be made for students who must miss class due to illness, observance of a religious holiday, and for students who must due to a university sponsored activity (with letter from coach, sponsor, etc). I am more willing to give make-ups if *prior* permission is obtained. If an assignment is due on a day you are absent, you must have a valid excuse to receive points on the assignment.

Cheating: Don't do it. Students are expected to adhere to the official Academic Dishonestly Policy as stated below:

Academic Dishonesty, in whatever form, belies the stated philosophy of WLU "to promote the development of the intellectual, cultural, social, physical, emotional, moral, and vocational capacities of all persons within its sphere of influence." Individuals who commit acts of academic dishonesty violate the principles, which support the search for knowledge and truth. The academic community has established appropriate penalties and disciplinary action for such behavior that can include being expelled from WLU.

Grading: An estimate to the number assignments is below. The standard grading scale will be used.

Written Assignments 11×3 points Oral Assignments 7×3 points Final Paper 10 points Final Presentation 10 points

Attendance $10 \times \frac{\text{number of attended classes}}{\text{total number of classes}}$ points

Special Attention: If you have a disability that affects your academic experience and plan to seek accommodations, it is your responsibility to inform Disability Support Services as soon as possible. Disability Support Services is located in the Learning and Student Development Center (LSDC) in Main Hall. Carrie Young is the ADA representative; she can be reached at (304) 336-8216 or by email at carrie.young@westliberty.edu. It is important to request accommodations early enough to provide adequate time to facilitate your request and provide faculty with written verification of eligibility.