



COLLEGE OF GRADUATE STUDIES

Summer 2008 Graduate Course Schedule

Please note that courses are subject to change. REGISTER EARLY to reserve your space!
Please visit plymouth.edu/graduate/directions for directions to courses held off campus

Mathematics
MG - Graduate Math

MG5000.01 **CRN: 40100** **TEACHING STUDENT CENTERED MATH**
Plymouth – Hyde Hall 318 Jack Barry j_barr@plymouth.edu
2 Credits
Monday 8:30AM – 2:30PM 8/4
Tuesday 8:30AM – 2:30PM 8/5
Wednesday 8:30AM – 2:30PM 8/6
Thursday 8:30AM – 2:30PM 8/7
Friday 8:30AM – 2:30PM 8/8

This course is based on the work John A. Van de Walle and LouAnn H. Lovin. Their approach utilizes a wealth of classroom activities that provide insight into a student-centered/developmental approach to teaching mathematics at the K-5 level. The course will be conducted through a balance of discussions, hands-on activities and videos.

MG5740.01 **CRN: 40101** **DMI:MEASURING SPACE IN 1, 2 & 3 DIMENSIONS**
Plymouth – Hyde Hall 327 Richard Evans evans@plymouth.edu
2 Credits Natalya Vinogradova nvinogradova@plymouth.edu
Monday 8:30AM – 2:30PM 8/4
Tuesday 8:30AM – 2:30PM 8/5
Wednesday 8:30AM – 2:30PM 8/6
Thursday 8:30AM – 2:30PM 8/7
Friday 8:30AM – 2:30PM 8/8

Topics for this course can vary, but may focus on one or more of the following: analytic and transformational geometry, properties of plane and solid figures, similarity, tessellations, fractals, projective geometry and geometry connections with the physical world. Exploration of geometric concepts may be done via hands-on activities, computer software or calculators. Students may repeat the course with a different topic as its focus with permission of the department chair. Summer.

MG5760.01 **CRN: 40102** **DMI:MAKING MEANING FOR OPERATIONS**
Plymouth – Hyde Hall 327 Natalya Vinogradova nvinogradova@plymouth.edu
2 Credits
Monday 8:30AM – 2:30PM 7/21
Tuesday 8:30AM – 2:30PM 7/22
Wednesday 8:30AM – 2:30PM 7/23
Thursday 8:30AM – 2:30PM 7/24
Friday 8:30AM – 2:30PM 7/25

Participants in the course "Making Meaning for Operations" will explore the teaching of numbers and operations to elementary and middle school students. Participants will read and discuss cases that concentrate on such questions as: What kind of actions and situations are modeled by addition, subtraction, multiplication, and division? How do children, as they work with such situations, come to understand the operation? A wide variety of mathematical games and activities will be involved to suggest different ways of bringing operations into "meaning" framework.

MG5810.01 **CRN: 40104** **FOSTERING ALGEBRAIC THINKING**
Plymouth – Hyde Hall 327 Natalya Vinogradova nvinogradova@plymouth.edu
2 Credits
Monday 8:30AM – 2:30PM 7/28
Tuesday 8:30AM – 2:30PM 7/29
Wednesday 8:30AM – 2:30PM 7/30
Thursday 8:30AM – 2:30PM 7/31
Friday 8:30AM – 2:30PM 8/1

Topics for this course can vary, but may focus on one or more of the following: techniques and content for teaching algebra at the secondary level based on national and state recommendations, standards-based materials; relations and function; data analysis and curve fitting; sequences and series; precalculus concepts, chaos and fractals: groups, rings and fields. Students may repeat the course with a different topic as its focus with the permission of the department chair. Summer.

MG5860.02 **CRN: 40156** **DIFFERENTIATED INSTRUCTION IN 7-12 MATHEMATICS**
Plymouth – Hyde Hall 318 Brian Beaudrie bpbeaudrie@plymouth.edu
3 Credits
Monday 8:30AM – 12:30PM 7/14, 7/21
Tuesday 8:30AM – 12:30PM 7/15, 7/22
Wednesday 8:30AM – 12:30PM 7/16, 7/23
Thursday 8:30AM – 12:30PM 7/17, 7/24
Friday 8:30AM – 12:30PM 7/18, 7/25

MG5860.01 **CRN: 40106** **TEACHING MATHEMATICS WITH THE TI-84**
Plymouth – Hyde Hall 318 Gregory Superchi g_superchi@plymouth.edu
2 Credits
Monday 8:30AM – 2:30PM 7/28
Tuesday 8:30AM – 2:30PM 7/29
Wednesday 8:30AM – 2:30PM 7/30
Thursday 8:30AM – 2:30PM 7/31
Friday 8:30AM – 12PM 8/1

Participants will deepen their understanding of the TI-84 Calculator and how to use it as a teaching tool for topics studied in Algebra I, Algebra II, Pre-Calculus, and Geometry with the spotlight on algebraic topics. The course will be driven by activities and experiences using the calculator that lend insight into the mathematics of these courses. Participants will leave the course ready to use activities for their classrooms and learn where to find such activities. A portion of the course will be dedicated to the use of probes that may be used with the TI-84 such as the CBR (Calculator Based Ranger). It is designed for participants who have some experience with graphing calculators; however, users with any experience are welcome.

MG5870.01 **CRN: 40108** **TOPICS IN CALCULUS FOR SECONDARY SCHOOL TEACHERS II**
Plymouth – Hyde Hall 327 Gregory Superchi g_superchi@plymouth.edu
3 Credits
Monday 8:30AM – 2:30PM 6/30, 7/7
Tuesday 8:30AM – 2:30PM 7/1, 7/8
Wednesday 8:30AM – 2:30PM 7/2, 7/9
Thursday 8:30AM – 2:30PM 7/3, 7/10
Friday 8:30AM – 2:30PM 7/11

Consists of topics from the study of calculus, advanced calculus and/or the applications of calculus for the purpose of providing some insight into the importance and use of calculus. With the permission of the Mathematics Department chair, the course may be repeated for credit if the theme and/or topics change. Summer.