MATH 599: Teaching Mathematics
Fall 2018 Graduate Course Syllabus

NJIT Academic Integrity Code: All Students should be aware that the Department of Mathematical Sciences takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

COURSE INFORMATION

Course Description: Required of all master's and doctoral students in Mathematical Sciences who are receiving departmental or research-based awards. Provides students with the skills needed to communicate effectively and to perform their teaching and related duties. Students are exposed to strategies and methods for communicating and for teaching undergraduate mathematics, and they are required to practice and demonstrate these techniques. Not counted for degree credit.

Number of Credits: 3

Prerequisites: Departmental approval.

Course-Section and Instructors

Course-Section	Instructor
Math 599-001	Professor J. Luke

Office Hours for All Math Instructors: Fall 2018 Office Hours and Emails

Required Textbooks:

Title	*Teaching Math Colleges and Universities Case Studied Today's Classroom*
Author	Friedberg
Edition	Grad Ed.
Publisher	American Math Society
ISBN #	978-0821828236

University-wide Withdrawal Date: The last day to withdraw with a **W** is **Monday, November 12, 2018**. It will be strictly enforced.

POLICIES

DMS Course Policies: All DMS students must familiarize themselves with, and adhere to, the Department of Mathematical Sciences Course Policies, in addition to official university-wide policies. DMS takes these policies very seriously and enforces them strictly.

Attendance Policy: Attendance at all classes will be recorded and is **mandatory**. Please make sure you read and fully understand the Math Department's Attendance Policy. This policy will be strictly enforced.

Cellular Phones: All cellular phones and other electronic devices must be switched off during all class times.

ADDITIONAL RESOURCES

Accommodation of Disabilities: Disability Support Services (DSS) offers long term and temporary accommodations for undergraduate, graduate and visiting students at NJIT. If you are in need of accommodations due to a disability please contact Chantonette Lyles, Associate Director of Disability Support Services at 973-596-5417 or via email at lyles@njit.edu. The office is located in Fenster Hall Room 260. For further information regarding self identification, the submission of medical documentation and additional support services provided please visit the Disability Support Services (DSS) website at:

- http://www5.njit.edu/studentsuccess/disability-support-services/

Important Dates (See: Fall 2018 Academic Calendar, Registrar)

Date	Day	Event
September 4, 2018	T	First Day of Classes
September 10, 2018	M	Last Day to Add/Drop Classes
November 12, 2018	M	Last Day to Withdraw
November 20, 2018	T	Thursday Classes Meet
November 21, 2018	W	Friday Classes Meet
November 22 - 25, 2018	R - Su	Thanksgiving Recess
December 12, 2018	W	Last Day of Classes
December 13 & 14, 2018	R & F	Reading Days
December 15 - 21, 2018	Sa - F	Final Exam Period

Course Outline

This course meets twice per week: Monday 10:00 a.m – 11:25a.m. and Friday 10:00 a.m.-11:25 a.m. Monday meetings address the mathematical infrastructure needed to teach mathematics successfully at the university level. Topics will include mathematical typesetting (LaTeX), mathematical software such as MATLAB, and the use of computer languages such as C and FORTRAN in scientific computing. Friday meetings will focus discussion and practice of classroom and tutoring situations. A typical Friday meeting will involve a discussion of a case study from the textbook, practice lectures (by students), and simulated tutoring situations. A final presentation making use of properly formatted slides and illustrative graphics is required. The schedule of practice lecture and presentations will depend on the number of students in the class and will be prepared early in the semester.

Learning Outcomes

After successfully completing this course students will be able to:

- Use TeX to prepare mathematical papers and presentations
- Use a compiled computing language such as C/C++ or FORTRAN to conduct the numerical computations for basic projects
- Use mathematical software such as MATLAB to perform elementary computations and to prepare graphs
- Implement in a classroom setting grading schemes, exams, quizzes, homework assignments, proctoring procedures, effective administrative posture towards student requests, techniques for motivating students through applications, and technologies to support and enhance learning.
- Prepare and present well-organized lectures seamlessly incorporating elements crucial to effective communication such as clear speech, clear and concise board work and slides, demonstrations, and active learning opportunities.

Updated by Professor J. Luke - 8/31/2016
Department of Mathematical Sciences Course Syllabus, Fall 2018