

SYLLABUS AND COURSE INFORMATION FALL 2016

MATH 546– Numerical Analysis

Room: BA 244 ; **Day and Time:** W 6:20PM-9PM, **Meets:** 8/29/2016 through 12/16/2016

Instructor: Dr. Nikolay Metodiev Sirakov **Office:** Bin 322
Office Hours: M 2PM-4PM **E-mail:** Nikolay.Sirakov@tamuc.edu
W 5PM-6PM **Office Phone:** 903 886 5943
TH 9AM-11:30PM **Office Fax:** 903 886 5945
Additional by appointment

COURSE DESCRIPTION

Text: Applied Numerical Analysis Using Matlab, Lauren V. Fausett, 2nd Ed., Pearson Prentice Hall, 2008. ISBN: 0-13-239728-5

Pre-requisite: permission by the instructor; knowledge about DE may be of help

Course Content & Calendar: 1st & 2nd weeks-Sections: 10.2.1-10.2.2 - Fourier Inter; Numerical Solutions ODE-3rd to 6th weeks-Sections 12.1.1-12.2.4; Systems ODE-7th to 11th weeks-Sections 13.1.1-13.1.4; Parabolic Partial DE, Heat Equation-12th to 15th weeks-Sections 15.1.1-15.1.4. **Note** 1week=1 section.

Students Learning Outcomes (SLO): The student will learn to interpolate data applying Fourier Transforms. They will study methods that approximate the solution of ordinary differential equation (ODE), System of ODE, and partial DE. The students will develop skills to apply the above methods and to program them in MatLab environment. They will accumulate knowledge how to perform independent study and present their work, also the students will develop skill and knowledge how to generalize theoretical problems and methods. **Online materials may be found at:** <http://faculty.tamuc.edu/nsirakov/> go to Teaching.

COURSE EVALUATION-

In-class exams	- 42%
HW/ Num. Methods in MatLab	- 20%
Quizzes	- 16%
Comprehensive final exam	- 22% (could be given as a project)

Grading Policy: **A:** 100%- 90% ; **B:** 89% - 80%; **C:** 79% - 70%; **D:** 69% - 60%; **F:** Less than 59 %

The professor reserves the rights to reward students for continuous hard work.

Additional Performances: Home Practice Problems, Extra Credit Problems (ECP)

Instructional Method: Teaching lectures, conducting quizzes, Exams, ECP.

Final Test Section: 01, 41R, 71R Date: Wednesday, 12.14.2015 Time: 6PM-8PM

COURSE POLICIES

HW: *are to be solved at home and turned on due time. No makeup is allowed.*

Quizzes: *are to be solved independently during the class period. No makeup is allowed.*

Tests: *The exams will be given at regular intervals. Students will be informed of the test dates a week in advance. The exams will be given at the scheduled times. No opportunity will be given to take the exam at earlier or later times except in cases of formal institutional excuses.*

Makeup: *Except in the case of a formal institutional excuse, no individual makeup test will be permitted.*

Cheating: 0 credit will be given for exams, quizzes, HW and other assignments in case of cheating.

Students with Disabilities: ADA is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: **Office of Student Disability Resources and Services, Gee Library, Room 132, Phone: (903) 886-5150 or (903) 886-5835, StudentDisabilityServices@tamuc.edu**

- All students enrolled at the TAMUC shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (**See Student's Guide Handbook, Policies & Procedures, Conduct**).

You path to success is to study hard, learn effectively and apply correctly what did you learn

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<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf> and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all TAMUC campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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