

# Math 241, Summer Session II 2016

## Course Information

**Instructor :** Soumyashant Nayak

**Class Schedule :** M-T-W-Th – 1:00 p.m. - 3:10 p.m.

**Classroom :** DRLB 4C6

**Office :** 3N2B

**Office Hours :** Friday 1:00 p.m. - 3:00 p.m. (or by appointment)

**email id :** [nsoum@math.upenn.edu](mailto:nsoum@math.upenn.edu)

**Course Website :** <https://www.math.upenn.edu/~nsoum/teaching/241-SUMR2016.html>

**Textbook :** *Applied Partial Differential Equations with Fourier Series and Boundary Value Problems, 5<sup>th</sup> Edition*, by Richard Haberman (ISBN : 978-0321797056)

### Course Description :

We will be studying partial differential equations (PDEs) which are important for study of the evolution of various physical systems in time and space. The main goal of the course is to develop problem solving skills in PDE, and to be able to identify mathematical and physical problems where such techniques may be employed. We will be covering most of chapters 1-8 and 10 from the course textbook. Familiarity with material in Math 114, 240 would be necessary to be able to navigate this course smoothly. Most of our attention will be devoted to problems in two and three dimensions with occasional stray remarks pertaining to higher dimensions.

For a more detailed description of the syllabus, please visit the official university Math 241 page at <https://www.math.upenn.edu/ugrad/calc/m241/syllabi/math241syllabus.pdf>

**Homework :** One homework per week, due on *Thursdays*. Weightage : 40 %

**Exams :** There will be three exams in the duration of the whole course. They will be based on the topics covered in class prior to them. All the exams will be conducted in the classroom (DRLB 4C6).

Exam 1 (Quiz) – July 7, 1:00 p.m. - 2:00 p.m. Weightage : 10 %

Exam 2 (Midterm) – July 21, 1:00 p.m. - 3:10 p.m. Weightage : 20 %

Exam 3 (Final) – Aug 5, 1:00 p.m. - 3:10 p.m. Weightage : 30 %

### **Some General Comments :**

a) This class is a whole semester's course compressed into 6 weeks. So you will have to work proportionately harder. As a rule of thumb, you should devote 16 hours of study time every week (beyond class hours), 2 for every hour of class.

b) Understanding mathematical concepts is important. Being able to use them at will is equally important and such skill can only be obtained through solving different kinds of problems. The more problems you solve, the more comfortable you will feel.

c) We will have a short break of 5 min (2:00 p.m. - 2:05 p.m. ) during the lectures. Please make sure you are back to classroom mode in time.

d) No request for make-up homeworks or exams will be entertained. The only exceptions may be granted in case of serious illness, family emergency or other similar unforeseeable circumstances.

e) Calculators are not permitted for any of the exams.

f) The University of Pennsylvania code of academic integrity is applicable to all students.