

Math 560**Partial Differential Equations I**
(FALL, YEAR: 2018, CREDITS: 3)

Instructor: Professor Hong-Ming Yin
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Office hour: T/Th: 2:00 pm – 3: 00 pm. or by appointment.

Prerequisites: Advanced Calculus and Math 315 or get permission from the instructor

Text book: Partial Differential Equations, by L. C. Evans.

Major Topics: (1) Sturm-Liouville Eigenvalue Problems and Eigenfunction Expansion.
(2) Series solutions by method of separation variables.
(3) Fundamental solution representation for heat equations, wave equations and Laplacian equations. Green's functions.
(4) Solution of heat equations, wave equations and Laplacian equation by various methods.
(5) Qualitative properties for solutions of various equations.

Course Grade:

6 Homework assignments (20 points each)	120 pts.
Midterm Test:	100 pts.
Final Exam. is a course project.	100 pts.
Total:	320 points. (A:86%, A-: 82%, B+:78%, B:75%, B-:70%,C: <70%)

Policy for Homework:

Each homework assignment will be turned in class (date will be set in class). Late homework will NOT be accepted unless the instructor agrees.

Other University Policies.

WSU Academic Integrity: Academic integrity is the cornerstone of the university. You assume full responsibility for the content and integrity of the academic work you submit. You may collaborate with classmates on homework assignments. However, your submitted work, and examinations must be your own work. Any student who violates the University's standard of conduct related to academic integrity will be referred to the Office of Student Conduct and may fail the assignment and/or the course. You can learn more about academic integrity at <http://conduct.wsu.edu/academic-integrity-policies-and-resources>. Please use these resources to ensure that you don't inadvertently violate WSU's standard of conduct.

WSU Safety: Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors to the Pullman campus.

It is highly recommended that you review the Campus Safety Plan (<http://safetyplan.wsu.edu>) and visit the Office of Emergency Management web site (<http://oem.wsu.edu/>) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

THIS SYLLABUS IS SUBJECT TO CHANGE. So come to class and check the course web page often.