Methods of Theoretical Physics
Physics 571 - Fall 2015

Instructor: Nicholas Cerruti
Office: Webster 1252
Office hours: MWF 2:00-3:00 pm or by appointment
(walk-ins are also welcome)
Phone: 335-2711
E-mail: ncerruti@wsu.edu

Web site: Blackboard Learn (https://learn.wsu.edu/)

and Frank Harris
(other editions are also acceptable)

Grades:
30% Homework (never accepted late)
20% First Midterm (October 7th, 9:00-10:00 am)
20% Second Midterm (November 9th, 9:00-10:00 am)
30% Final exam (December 15th, 8:00-11:00 am)

Learning Goals: To be able to use advance mathematical methods to solve physical problems.

Disability: Reasonable accommodations are available for students with documented disabilities. If you have a disability and need accommodation to fully participate in class, call or visit the Access Center (Washington Building Room 217, Phone: 335-3417, E-mail: Access.Center@wsu.edu, URL: accesscenter.wsu.edu) to schedule an appointment with an Access Advisor. All accommodations must be approved through the Access Center. Notify the instructor during the first week of class concerning any approved accommodations. Late notification may cause the requested accommodations to be unavailable.

Campus Safety: Stay informed about safety issues and emergency procedures. General information on safety issues is posted at http://safetyplan.wsu.edu. For information on how to prepare for potential emergencies, visit oem.wsu.edu. Weather warnings and safety alerts are posted promptly at http://alert.wsu.edu/. Urgent warnings that apply to the entire University community will also be broadcast using the Campus Outdoor Warning System (speakers mounted on Holland Library and other buildings) and the Crisis Communication System (e-mail, phone, cell phone). For this purpose it is important to keep your emergency contact information up to date on the MyWSU system. To enter or update this information, click on the “Update Now!” link in the ”Pullman Emergency Information” box on your MyWSU home page, at http://mywsu.wsu.edu/.
Academic Integrity: Academic dishonesty, including all forms of cheating, plagiarism, and fabrication, is prohibited [WAC 504-26-010(3)]. The instructor reserves the right to take appropriate action. A failing grade in the class may result. Incidents of academic dishonesty will be reported to the Office of Student Conduct.

Main topics to be covered (tentatively):
1. Infinite Series
2. Vectors
3. Matrices
4. Eigenvalues
5. Vector Spaces
6. Tensors
7. Complex Variables
8. Ordinary Differential Equations
9. Partial Differential Equations
10. Green's Functions
11. Special Functions
12. Further Topics