Course

Classes: Monday, Wednesday and Friday 10:30-11:20am in RCH 109.
Prerequisites: MATH 227, 228; Honours Physics, Chemical Physics, Physics and Astronomy, Life Physics and Materials and Nanosciences students only.
Antirequisites: AMATH 353.

Instructor

Prof. R. Thompson
Office: PHY 355
Phone: (519) 888-4567 ext. 32219
Email: thompson@uwaterloo.ca
**Best method of contact**
Office hours: Mondays and Wednesdays 12:00-12:45pm or by appointment.
Teaching Assistant: Guiyang Han, g5han@uwaterloo.ca.

Topics

Fourier series and introduction to Fourier transforms; Curvilinear coordinates; Partial differential equations and separation of variables; Legendre, Bessel and other special functions; the Frobenius method; Fuch’s theorem; Sturm-Liouville theory; the Dirac delta function and Green’s functions.

Evaluation

Assignments: (between 5 and 10 of them): 10%
Midterm: Friday, October 30th from 10:30am-12:20pm in RCH 105): 25%
Final: (time and place set by Registrar’s office): 65%

Accommodations will be considered only with confirmed Verification of Illness Forms. Travel is not a legitimate excuse for missing examinations or deadlines. Late assignments will be accepted for partial credit until the TA has finished marking.
The Office for Persons with Disabilities (OPD), located in Needles Hall Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term. Also notify the instructor.

**Students with Disabilities**

**Academic Integrity**

**Academic Integrity**: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

**Grievance**: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy #70, Student Petitions and Grievances, Section 4. [http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm)

**Discipline**: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. For information on categories of offenses and types of penalties, students should refer to Policy #71, Student Discipline, [http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm)

**Appeals**: Concerning a decision made under Policy #70 (Student Petitions and Grievances) (other than petitions) or Policy #71 (Student Discipline) a student may appeal the finding, the penalty, or both. A student who believes he/she has a ground for an appeal should refer to Policy #72 (Student Appeals) [http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm)