Syllabus PHYS 414: Quantum Mechanics

- **Subject**: How Quantum Mechanics is done in practice. This requires some abstract mathematics, complex numbers, differential equations, and linear algebra (there is an Appendix in the textbook on linear algebra).

- **Instructor**: S.J. van Enk, 251 Wil, svanenk@uoregon.edu

- **Office hours**: Wednesdays, 10am-12am. However, I have an open door policy and you can ask me questions at any time about anything.

- **TA**: Young-Shin Park, 272B Wil, ypark1@uoregon.edu

- **Textbook**: D. J. Griffiths, *Introduction to Quantum Mechanics*, second edition. A popular book. We will probably get through Chapters 1–3 this term, 4 and 5 next term, and 6, 7, 9 and 12 in the 3rd term.

- **Some other books**:
  - at the same level: Feynman, *Feynman’s Lectures on Physics*, Vol. 3 (many words, different approach); Gasiorowicz, *Quantum Physics* (no stories, just the physics).
  - at a lower level: French and Taylor, *Introduction to QM* (lots of words);
  - at a higher level: Sakurai, *Modern Quantum Mechanics* (used in the graduate course at the UO); Mandl, *Quantum Mechanics*.

- **Homework**: Due every Thursday, except in the week of the Midterm. Late homework (handed in before the weekend) counts for 75%. Your lowest homework score will be dropped.

- **Grading**: Quiz (10%), Midterm (20%), Final (30%), Homework (40%). I will not curve any individual homework score, quiz score, midterm score, but I do curve the final grade. If the scores are reasonable, the average score will correspond to a B, one standard deviation above (below) will be an A (C).

- **Blackboard**: I use two parts of blackboard: course information (announcements, statistics on homework/quiz/midterm scores: averages and standard deviations) and course documents (solutions to problems, articles related to material)