课程名（Coursename）  
Chemistry 243. Applied Quantum Mechanics  
  
课程代码（Coursenumber）  
3622  
  
课程对象（Audience）  
Primarily for Graduates  
  
开课教师（Teacher）  
Instructor to be determined  
  
学期（Semester）  
Spring term  
  
课程描述（Description））  
The course will cover the application of quantum mechanical principles to contemporary problems in chemistry and physics. The topics covered in the course will include: chemical bonding and the Born-Oppenheimer Approximation, atom/molecule-photon interaction (including second quantization and the dressed-state approach), Quantum Optics, and solid-state and nano-science (band theory, Fermi liquid theory, and electron transport).  
  
课时信息（Totalhours）  
M., W., 2–3:30.  
  
教参信息（Textbookinfo）  
1 Applied Quantum Mechanics by A. F. J. Levi (Hardcover - June 26, 2006)  
ISBN-13: 978-0521860963  
世界各地拥有馆藏的图书馆（OCLC）:193  
2 Quantum Mechanics for Scientists and Engineers (Classroom Resource Materials) by D. A. B. Miller (Hardcover - Apr. 21, 2008)  
ISBN-13: 978-0521897839  
世界各地拥有馆藏的图书馆（OCLC）:259  
3 Quantum Mechanics For Engineering: Materials Science and Applied Physics by Herbert Kroemer (Paperback - Mar. 17, 1994)  
ISBN-13: 978-0137470983  
4 Applied Quantum Mechanics by Walter A. Harrison (Paperback - Sept. 2000)  
ISBN-13: 978-9810243944  
5 Applied Quantum Mechanics (Lecture Notes in Physics) by Richard K. Osborn (Paperback - May 1987) ISBN-13: 978-9971502959  
6 Chaos in Classical and Quantum Mechanics (Interdisciplinary Applied Mathematics) (v. 1) by M. C. Gutzwiller (Hardcover - Oct. 23, 1990)  
ISBN-13: 978-0387971735  
7 Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy by Daniel Greenberger, Klaus Hentschel, and Friedel Weinert (Hardcover - Sept. 9, 2009)  
ISBN-13: 978-3540706229  
世界各地拥有馆藏的图书馆（OCLC）:169  
8 Path Integrals in Quantum Mechanics, Statistics, Polymer Physics, and Financial Markets by Hagen Kleinert (Paperback - May 18, 2009)  
ISBN-13: 978-9814273565  
世界各地拥有馆藏的图书馆（OCLC）:70  
9 Quantum Mechanics for Mathematicians (Graduate Studies in Mathematics) by L. A. Takhtadzhian (Hardcover - Aug. 15, 2008)  
ISBN-13: 978-0821846308  
世界各地拥有馆藏的图书馆（OCLC）:199  
10 Introductory Applied Quantum and Statistical Mechanics by Peter L. Hagelstein, Stephen D. Senturia, and Terry P. Orlando (Hardcover - Mar. 25, 2004)  
ISBN-13: 978-0471202769  
世界各地拥有馆藏的图书馆（OCLC）:168  
11 Mathematical Concepts of Quantum Mechanics (Universitext) by Stephen J. Gustafson and Israel Michael Sigal (Paperback - July 28, 2003)  
ISBN-13: 978-3540441601  
世界各地拥有馆藏的图书馆（OCLC）:190  
12 Concepts in Quantum Mechanics (Pure and Applied Physics) by Vishnu S. Mathur and Surendra Singh (Hardcover - Dec. 12, 2008)  
ISBN-13: 978-1420078725  
世界各地拥有馆藏的图书馆（OCLC）:108  
13 Finite Element and Boundary Element Applications in Quantum Mechanics (Oxford Texts in Applied and Engineering Mathematics) by L. Ramdas Ram-Mohan (Paperback - Nov. 7, 2002)  
ISBN-13: 978-0198525226  
世界各地拥有馆藏的图书馆（OCLC）:191