University of Northern British Columbia
College of Science and Management
Physics Program

Physics 206/Winter 2004
Modern Physics II
Course Outline

Course Description:	Modern Physics II: Second part of a two-semester course in modern physics: applications of quantum physics and relativity. Topics include: statistical physics, molecular structure, the solid state of matter, structure of crystals, semiconductors and superconductors, lasers, nuclear structure, radioactivity, nuclear reations, applications of nuclear physics, elementary particles, elements of cosmology.
Prerequisite:	Physics 205
Laboratory:	3 hours/week

Course Instructor:	Dr. Ahmed H. Hussein
Office Location:	5-468
Office telephone:	960-6622
e-mail	hussein@unbc.ca

Lecture Times:	TR 10:00 - 11:20
Lecture location:	5-115
Laboratory Time and Location:	C1 R 11:30 - 02:20 4-206

Text Book Title:	Modern Physics
Authors:	R. A. Serway , C. J. Moses, C. A. Moyer
Publisher:	Sauders College Publishing

Course Schedule

		Chapter		Home Work
		Title	**Sections**	**Problems**
1	9	Statistical Physics	1 - 4	2, 8, 12, 17, 23
2	10	Molecular Structure	1 - 5	3, 4, 7, 9, 14
3	11	The Solid state	1 - 6	7, 12, 14, 16, 17
4	12	Superconductivity	1 - 11	
5	13	Nuclear Structure	1 - 6	
6	14	Nuclear Physics Applications	1 - 10	
7	15	Particle Physics and Cosmology	1 - 13	

Course Information

Office Hours: Students are strongly encouraged to contact me for any problems and/or discussions on the course material. You can drop in at any time, or make an appointment after any of the course lectures.

Grade Distribution: The final grad of the course is divided as follows:

Home Work	15%
Laboratory	20%
Mid-Term Exam	25%
Final Exam	40%

Home Work: Students are required to solve some problems on each of the chapters taught in the course. Problem numbers are given in the course schedule (see the course schedule table above). **The due date of each assignment is one week after the the last lecture of the chapter**. Every problem will be graded on a scale of 10. Assignments submitted after the due date will not be accepted. Students encountering **unusual circumstances might** be given permission for late submission.

Reading Material: Some parts of the chapters will be assigned, during the course, as required reading material.

Examinations: The mid-term examination will be held **one week after the end of chapter 11** and will cover chapters **9, 10 and 11**. Make up examinations **might** be arranged for students encountering **unusual circumstances**. The final examination will cover all chapters.

Laboratory: There will be no labs during the first week of classes. Your laboratory instructor will give you all necessary information about the laboratory work in the first lab period.