MATH. 312: ALGEBRA II SPRING 2004

TUESDAY, THURSDAY,1:30 – 2:50 PM ROOM 4472

Instructor:
Jian-shu Li, email: matom@ust.hk
Office Hours:
Unlimited. Stop by my office any time (Room 3460)
Text Book:
Thomas W. Hungerford, Abstract Algebra, 2nd edition.
Exams/Homeworks and Grading Policy:
Two exams (35% each):

- First exam on **Tuesday, March 23**
- Second exam on **Tuesday, May 11**.

There will be five (5) sets of homework assignments (6% each) to be handed in during tutorial sessions, with due dates as indicated below. **Please check for updates/modifications** of homework assignments through the web.

- Set 1: **8.2**, # 4, 5(d), 14, **8.3**, # 6, 20, **8.4**, # 12, 18. Due **February 27**
- Set 2: **8.5** # 8, 16 **6.1**, # 8, 12, 16, **6.2**, # 20, 32 **6.3**, # 6, 16, **5.2**, # 6, 14 **5.3**, #8, 12. Due **March 12**
- Set 3: **9.1** # 8, 14, 24, **9.2** # 6, 10, 36, **10.1** # 12, 18, 34, **10.2** # 4,5, 8, 18, 26 **10.3** # 6, 12, 14, 16, Due **April 2**
- Set 4: **10.4**, # 2, 8, 10, , 16, **10.5**, # 16, 12, 14, **10.6** # 6, 8, 16, Due **April 23**
- Set 5: **11.1**, # 4, 6, 14, **11.2**, # 2, 8, 12, **11.3**, # 1, 8, 10, 18, Due **May 7**

Course Content:
We shall continue to study basic algebra at a level deeper than what is covered in Math 311 (which is a prerequisite for this course). Topics include:

- topics in group theory (Chapter 8 of textbook)
- review of some ring theory (Chapter 6)
- quotients of polynomial rings (Chapter 5)
- integral domains (Chapter 9)
- field theory (Chapter 10)
- Galois theory (Chapter 11)