

Course Outline

Mathematics 2234, Topics in Abstract Algebra

Winter Term 2012

Lakehead University, Thunder Bay Ontario

Instructor: Dr. Andrew P. Dean

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Phone: 343-8289

Meeting times: MW 4-5:20

Office Hours: Fridays 2-4 pm

Text: Contemporary Abstract Algebra, 7th ed by Joseph Gallian

Course Prerequisites: Math 2232

Course Outline: An extension of Mathematics 2232. Review of essential properties of groups and rings. Classification of cyclic groups. External and Internal direct products of groups. Fundamental Theorem of Finite Abelian Groups. Polynomial Rings. Factorization of Polynomials. Extension Fields. Algebraic Extensions. Finite Fields. If time permits may do an introduction to Algebraic Coding Theory or an Introduction to Galois Theory.

In Chapters from Gallian: Second half of Chapter 4, Chapter 8, last part of Chapter 9, Chapters 11, 16, 17, 18, 20, 21, 22

Evaluation:

Assignments 20% (5-6)

Notes

- Due date assigned. Late 10% per day. Not accepted once solutions are handed out
- Pen (not green, red, mauve etc.) or DARK pencil
- Stapled
- Neat and proofs must be well organized

Tests 30% (2 X 15%, in class)

Dates: Test 1 Feb. 6

 Test 2 March 14

Final: 50% (in exam period, 3 hours)

Important Dates:

First Class Monday January 9, 2012

Last Class Monday April 4

Break Week Feb. 21-25

Withdrawal date March 7

Exams April 10-20

Please turn cell phones off. Thanks

