



Faculty of Science
DEPARTMENT OF MATHEMATICS AND STATISTICS
Course Information Sheet

1. **Course:** PMAT 315

Lecture/Time/Session: L01/ MWF 11:00 / ICT 116

Instructor: Kristine Bauer

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Winter 2006

Office: MS 578

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2. **Prerequisites:** Math 211 or Math 221.

NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined in the current University Calendar (see www.ucalgary.ca/pubs/calendar) *Faculty of Science, section 5C*. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**

3. **Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

4. **The University policy on grading and related matters** is described in the current University Calendar, *Academic Standings*. In determining the overall grade in the course, the following weights will be used:

| | | |
|---------------|---------------|-----|
| Mid-term Test | [1] | 20% |
| Quizzes | [2] | 20% |
| Assignments | [best 4 of 5] | 25% |
| Final Exam | | 35% |

A passing grade on any particular component of the course is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office. You will not be permitted to use any aids (books or notes) for exams.

5. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined in the current University Calendar, *Faculty of Science, section 6A*. It is the student's responsibility to familiarize herself/himself with these regulations.

6. **Academic misconduct** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the current University Calendar. See: <http://www.ucalgary.ca/honesty/>

7. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):** There will be a 90 minute midterm exam on Monday, March 13 @ 17:00.

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a conflict with this out of class time activity, please inform your instructor at least one week in advance of the activity so that other arrangements may be made for you.

Schedule of Topics and Deadlines

| Week Beginning... | Topics | Deadlines |
|-------------------|----------------------------------------------|-------------------------------------------------------------------------------|
| January 9 | Properties of integers, modular arithmetic | |
| January 16 | Equivalence relations and induction | |
| January 23 | Groups, subgroups, cyclic groups | HW 1 due Monday, January 23 in class. |
| January 30 | Generators and relations, permutations. | |
| February 6 | Isomorphisms and cosets. | HW 2 due Mon. Feb. 6 in class. |
| February 13 | Normal subgroups, factor groups | Quiz 1 Thursday, Feb. 16 in lab sections. |
| February 20 | Reading week, no class. | |
| February 27 | Homomorphisms, Isomorphism Theorems. | |
| March 6 | The Fundamental Theorem, classifications | HW 3 due in class, Mon. March 6. |
| March 13 | Rings, subrings and integral domains. | Midterm Exam , Monday, March 13 |
| | Ideals and factor rings. | |
| March 27 | Ring homomorphisms and Isomorphism Theorems. | HW 4 due in class, Mon. March 27 |
| April 3 | Factorization and divisibility. | Quiz 2 Thursday, Apr. 6 in lab sections. |
| April 10 | Vector spaces. | HW 5 due in class, Mon. April 10. Last day of classes, Thursday April 12.. |