MATH 544.001, Abstract Algebra II
COURSE SYLLABUS: Spring 2019

INSTRUCTOR INFORMATION

Instructor: Padmapani Seneviratne
Office Location: BIN 316
Office Hours: M 3:00 – 5:00 pm, TR 12:30 – 02:00 pm or by appointment
Office Phone: 903- 886-5952
Office Fax: 903-886-5945
University Email Address: Padmapani.seneviratne@tamuc.edu
Preferred Form of Communication: email
Communication Response Time: within 24 hours during weekdays

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required:

Software Required: Magma computer Algebra System – will be provided
Optional Texts and/or Materials:

Course Description

Rings, Euclidean domains, PID, UFD, Polynomial rings, Field theory and Galois theory
Prerequisites: MATH 543

Student Learning Outcomes: Upon successful completion of this course a student will:

1). Define, and interpret basic concepts, fundamental properties and the algebraic structures of Rings and fields.

The syllabus/schedule are subject to change.
2). Understand properties of Ideals, PID’s and UFD’s.

3). Define, explain and analyze polynomial rings and their properties.

4). Explain theory of algebraic extensions and splitting fields.

(5). State and prove fundamental theorem of Galois theory.

(6). Use a computer algebra system to understand and do computations in abstract structures.

(7). Learn applications of rings and fields.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Instructional Methods
Instruction is done by traditional lecture. Magma computer algebra system will be used to illustrate examples.

Student Responsibilities or Tips for Success in the Course
Submit all homework including the programming project on time.

GRADING
Final grades in this course will be based on the following scale:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Midterm Exams</td>
<td>50%</td>
</tr>
<tr>
<td>Home work</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

The syllabus/schedule are subject to change.
**Exams:** There will be 2 midterm exams, homework and a comprehensive final exam for this course.

Exam 1: Wednesday, February 12\(^{th}\) 2019 (6\(^{th}\) week)

Exam 2: Wednesday, April 10\(^{th}\) 2019 (12\(^{th}\) week)

Final Exam: TBA

**TECHNOLOGY REQUIREMENTS**

**LMS**

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:  
[https://community.brightspace.com/s/article/Brightspace-Platform-Requirements](https://community.brightspace.com/s/article/Brightspace-Platform-Requirements)

LMS Browser Support:  
[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

YouSeeU Virtual Classroom Requirements:  

**ACCESS AND NAVIGATION**

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

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COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

You are expected to attend all classes.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook. http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01. http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

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**Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03


Graduate Student Academic Dishonesty 13.99.99.R0.10

[http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf)

**Students with Disabilities-- ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

**Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

**Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun.

The **syllabus/schedule are subject to change**.
Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Weekly Schedule (Tentative)

Week 1-3: chapter 7
Week 4-5: chapter 8
Week 6-7: chapter 9
Week 8-11: chapter 13
Week 12-15: chapter 14

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