

Dr. Charles Rocca  
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<http://sites.wcsu.edu/roccac/>

MAT 513-71: Modern Algebra II  
M: 5:20 - 7:55 in HA 213

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**Office Hours:**

MW: 12:30pm to 1:30pm & M: 4pm to 5pm  
TR: 2:15pm to 3:15pm

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**Course Materials:**

Textbook: “Galois Theory, 4<sup>th</sup> edition” by Ian Stewart

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**Course Objectives:**

After successful completion of this course a student will:

- have an understanding of the history of solving equations,
- understand how to solve basic equations of degree three and four,
- be able to explain why some quintic polynomials are insoluble,
- understand the connection between groups, fields, and polynomials,
- be familiar with the fundamental theorem of Galois Theory.

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**Course Content:**

History of Solving Equations	Historical Intro & 1
Review of Modern I	3 & 4
Polynomials & Field Extensions	5 & 6
Idea Behind Galois Theory	8
A Little More Background	9 - 11
Fundamental Theorem & an Example	12 & 13
The Insoluble Quintic	14 & 15
Misc. Other	Selections from 7, 19, 20 ,22, 24

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**Grading:**

Definition and Theorem Quizzes	30%
Skills Exams	30%
Textbook Assignments	40%

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## Classroom Policies:

**Assignment Guidelines:** Out of class assignments should always look *neat, legible, and professional; they must be written on loose leaf college ruled paper or be typed*. Messy work, work on crumpled papers, or on paper torn from a notebook with “frillies” will be rejected and counted as late. Whenever appropriate answers on all assignments should be given in *complete sentences*. I will almost always accept late work. An assignment is considered late after I have handed it back or gone over it in class. Late assignments will receive at most 75% credit.

**Exam Makeup Policy:** To qualify for a makeup exam you must present evidence of a valid reason for missing the exam and, if at all possible, contact me ahead of time to make arrangements for the makeup. If you do not present a valid reason, do not give prior notice when possible, or simply do not show up for an exam, you are not entitled to a makeup and will not be given one. Finally, if you fail to show up for your makeup exam at the agreed upon time you will not be given a second opportunity under any circumstances.

**Time on Task:** Please note that for all your classes you should be spending at least 2 hours working outside of the class for every 1 hour in the class. In particular *for this class you should be doing 6 hours of work a week not including class time*. Note that this is an average, if you are weak in the subject or under prepared you will need to spend more time on the class.

**Attendance:** There is no specific policy for attendance in this course. However please keep the following in mind:

- if you have three consecutive unexcused absences I am required to report to the University that you have stopped attending,
- while most of the dates and assignments for the course will be posted on the website occasionally small assignments or quizzes will only be announced in class.

Therefore, you should try to make every effort to attend all the classes.

**Academic Honesty:** If on any assignment, quiz, or exam you turn in someone else’s work as if it were your own you will receive a zero on that assignment, quiz, or exam. If you are caught doing this three times you will receive an F in the course and the Dean will be informed of your academic dishonesty.

(WCSU Honesty Policy: <http://www.wcsu.edu/facultystaff/handbook/forms/honesty-policy.pdf>)

**Accommodations:** If you have need of an accommodation for testing or note taking, please visit AccessAbility Services, located in Higgins Annex 017 (<http://www.wcsu.edu/accessability>). They will give you an accommodation letter which you must bring to me as soon as possible.