# MATH 566 - Abstract Algebra II <br> Spring 2024 <br> MoWe 14:30-15:45, MDD 214 

| Instructor: | Arturo Magidin |
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| Office Hours: | MoWe 13:15-14:00, Tu 10:30-11:30, Th 13:30-14:30 |
|  | or by appointment. |
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| Campus Phone: | 482-6706. |
| e-mail: | magidin@louisiana.edu |
| Course homepage: | http://www.ucs.louisiana.edu/~avm1260/math566.html |
| Moodle page: | See below. |

PREREQUISITES: Permission of the Instructor and the Department.
TEXTBOOK: Algebra, by Thomas W. Hungerford. Graduate Texts in Mathematics vol. 73, corrected 5th printing, Springer-Verlag, NY, 2003. ISBN 978-0387905181.

The sequence covers three basic topics: Groups, Rings, and Fields. The second semester covers Rings and Fields, and then circles back to Groups in connection with Galois Theory. We will cover Chapter III, a few topics of Chapter IV, and most of Chapter V.

MOODLE PAGE: Because students are enrolled in the course under two different modalities, rather than try to keep two separate Moodle pages up-to-date, we have created a single combined Moodle. The Moodle course name is "Spring 2024 Abstract Algebra II (MATH-566-001, MATH-498004)", and the short name is "44021.202440, 44229.202440"

You should have been added to this course already. If you do not see this course in your Moodle, contact me and I will manually add you. I will be hiding the normal MATH 566-001 and MATH 498-004 Moodle pages at the end of the first week.

MY OFFICE AND OFFICE HOURS: My office is in Maxim Doucet Hall Room 404. I will have four office hour periods a week, tentatively set as above. We can also meet by appointment if you cannot make the regular office hours. See me just before or just after class to make an appointment. Feel free to ask for an appointment, especially if you cannot make the regular office hours for some reason.

READING THE BOOK PRIOR TO ATTENDING CLASS: Each class, I will note which section of the book you should read before the next lecture. Be sure to read it even if you do not think you understand it. It makes class time much more useful, allowing the ideas to percolate through and letting you pay more attention to what is being said in lecture.

HOMEWORKS: Homework is a major part of this course, and very important. Mathematics is learned almost exclusively by doing, and that is what homework is for: to help you understand the material, and to help you zero in on the material you are finding difficult. Do not be afraid to ask for help from your fellow students, or most especially from me. In fact, that's mainly what my office hours are for.

I cannot assign as much homework as I think you should do, because the volume would be too much for us all to handle. So you should try to do more than the assigned problems.

Homework will be assigned almost every week. Assignments are normally due on Wednesday. I may change the schedule a bit, but if I do I will give you advance notice of the change.

I will give you worked out solutions to the homework problems as you turn them in. Be sure to read them, and compare it with your graded assignments. Homework is due at the beginning of class, as you come in. I will not accept late homeworks for any reason.

Please review the Academic Honesty handout to familiarize yourself with how to avoid plagiarism.

TESTS: There will be one in-class midterm; there will also be a cumulative final exam, which will be two and half hours. They will take place on the following days:

$$
\begin{aligned}
\text { Midterm: } & \text { Wednesday March 13 } \\
\text { Final: } & \text { Monday April 29, 11:00-13:30. }
\end{aligned}
$$

GRADING: Your final grade will be based on your homeworks and class participation, midterm, and final, in the following way:

| Homeworks and class participation: | $55 \%$ |
| :--- | :--- |
| Midterm | $20 \%$ |
| Final | $25 \%$ |

I will drop your lowest two homework scores. Each total will then be scaled so that your final score is out of 1000 .

Note that getting $100 \%$ on the final is not enough to pass the course (though it cannot hurt). I do not curve, but I do scale (ask if you do not understand the difference).

I do not have a rigid correspondence between numerical grades and letter grades; this is where consideration for people who have improved (or not) throughout the semester comes in, or for people who did exceedingly well in the final, etc. For your reference, however, the following are good approximations:

\left.| Letter grade | Approximate |  |
| :---: | ---: | :--- | :--- |
| Range |  |  |$\right]$| $\mathbf{A}$ | 900 | -1000 |
| :---: | ---: | :--- |
| $\mathbf{B}$ | 775 | -875 |
| $\mathbf{C}$ | 650 | - |
| D | 550 | - |
| F | 625 |  |
| F | 0 | - |
|  |  | 550. |

TIME REQUIREMENTS: Expect to spend about 9-10 hours a week on this course, in addition to the two lectures. This includes working on homework, reading, and reviewing. If you find yourself regularly spending considerably more time than this, let me know!

MAKE-UP WORK: I do not receive late homeworks and will not allow anyone to make up any homeworks not turned in. If you cannot make it to class, have someone drop off the homework or make it reach me in some way before class begins. If you will not be able to take an exam for a valid absence (illness, family emergency, UL-sponsored travel, etc), you must notify me in advance if at all possible and we will arrange for a make-up exam.

