

SYLLABUS: ALGEBRAIC NUMBER THEORY, SPRING 2019

1. COURSE DETAILS

Instructor: Associate Professor Dr. David J. Gryniewicz

Office: Dunn Hall 376 (moving to DH 367)

Office Hours: WF 10:15 – 11:15, and by appointment

Webpage: www.diambri.org

University of Memphis Email: djgrynk@...

Location: Dunn Hall TBA

Time: MWF 14:10 – 15:05

Textbooks: *Algebraic Number Fields (Graduate Studies in Mathematics)* by **Janusz**, and *Algebraic Number Theory* by **Neukirch**.

Summary. This is an introductory graduate level introductory course in Algebraic Number Theory, focussed on Algebraic Number Fields. We will cover material from the first chapter in the listed textbooks, including the ideal theory surrounding Dedekind Rings and fractional ideals, as well as ring extensions and ramification of primes, and then continue as time allows.

Course Format. The course will have a seminar format, meaning there will be more emphasis on attending lectures and asking questions, with a limited amount of homework given during the semester. Final evaluation will be based on student presentations at the end of the semester.

Grading Scheme. Percentage of classes attended (20%), Homework Average (20%), Final Presentation (60%). Excused absences will not count against a student's attendance

Students may collaborate and help each other on the homework, but each student must write up the solution independently, in their own words and unaided. Simply transcribing someone else's solution can have serious consequences.