MTG7397 Adv Topics Topology II, COHOMOLOGY OF GROUPS

Text: "Cohomology of Groups" by Kenneth Brown

Schedule and Room: MWF 6 LIT 205

Grading: 50% Presentation+50% Final. The grade will be
A if the score ≥ 85, $B+$ if > 80, B if > 70, C if > 50.
One in class presentation. A home-taken Final.
Extra credit: up to 10 pts for extra presentation in class, up to 5 pts
for solving a * rated problem.

Attendance is strictly recommended.

Office Hours: MW7 LIT 424

Description of the Course:

January-2025 (Chapters I-II):

Basics of Homological Algebra
Homology of Groups
Hopf's Theorem
Homology of Amalgamated Product

February and March before the Spring break (Chapters III, V):

Homology and cohomology with coefficients
Tor and Ext
Injective modules
Induced and coinduced modules
Shapiro Lemma
Dimension shifting
Transfer map
Cup and cap product
Pontryagin Product
Berstein-Schwarz class
Universality theorem

March after Spring break and April (Chapter VIII):

Cohomological dimension

Serre's theorem
Resolutions of finite type
Duality groups
Virtual Notions

Statement: · Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

MAT6932 Seminar in Topology
It consists of two seminars.

1. TOPOLOGY and DYNAMICS SEMINAR
Description and Goals: This is a research seminar with a long tradition
TOPOLOGY and Dynamics SEMINAR meets on Tuesdays 5th period in LIT 368
Every student signed up for MAT6932 must attend this seminar.

Spring-2025:
January 14th Organizational meeting
January 21st No Seminar
January 28th
February 4th
February 11th
February 18th
February 25th
March 4th Lorenzo Ruffoni, Binghamton University
March 11th
March 25th
April 1st
April 8th
April 15th
April 22nd

2. GRADUATE STUDENT TOPOLOGY SEMINAR.
Description and Goals: Graduate Student Topology Seminar is a survey seminar in Topology :

UF Graduate Student TOPOLOGY SEMINAR meets on Tuesdays 8th period in LIT 423

Every student signed up for MAT6932 must give a presentation in this seminar.

Spring-2025:
January 14th Organizational meeting
January 21st No Seminar
January 28th
February 4th
February 11th
February 18th
February 25th
March 4th
March 11th
March 25th
April 1st
April 8th
April 15th
April 22nd