

MAS5932—Topics in Algebra: Complex Manifolds

INSTRUCTOR: Dr. Ettore Aldrovandi.

OFFICE: 215 LOV.

OFFICE HOURS: M 10:10-11:50 am, TR 11:00 am-12:15 pm.

E-MAIL: aldrovandi@math.fsu.edu

WEB PAGE: <http://www.math.fsu.edu/~ealdrov>

SCHEDULE Class will meet TR 9:30–10:45 am in LOV 104.

PREREQUISITES Complex Analysis (MAA5406/7) and/or Differential Topology (referred to also as Topology III, MTG5932), or permission by the instructor.

TEXT There is no *required* textbook for the course, although the material will be taken from the following texts:

1. D. Huybrechts: Complex Geometry (An Introduction). Springer.
2. C. Voisin: Théorie de Hodge et géométrie algébrique complexe. Société Mathématique de France.
3. P. Griffiths, J. Harris: Principles of Algebraic Geometry. Wiley-Interscience.

COURSE CONTENT A rough list of topics is as follows:

1. Rudiments of Several Complex Variables;
2. Complex Structures;
3. Complex Manifolds;
4. Sheaves and Cohomology;
5. Rudiments of Intersection Theory;
6. Vector Bundles;
7. Hodge Theory;
8. Divisors and Line Bundles;
9. Other topics, if time permits.

COURSE OBJECTIVES The course objective is to give an introduction to the foundations of the geometry of complex manifolds and complex differential geometry.

GRADING Your grade will be based on attendance and at least one in-class presentation toward the end of the course. Presentations will be based on a topic agreed upon in advance with the instructor.

Attendance determines the grade as follows: assuming the presentation requirements are met, the grade is determined according to the following table:

Absences	0-5	6-10	11-15	16-20	> 20
Grade	A	B	C	D	F

Excuses will be considered if the student presents sufficient and verifiable documentation that absences are beyond the student's control (for example, health, or travel required by graduate work). In that case, a make-up project can be used to raise the grade to up a full grade point.

University Attendance Policy Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and... [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>.)

Americans With Disabilities Act Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
<http://www.disabilitycenter.fsu.edu/>