



PHYS*1600 Contemporary Astronomy

Fall 2017

Section: DE

Department of Physics

Credit Weight: 0.50

Course Details

Calendar Description

This course is designed for non-science students. Emphasis will be on the interdisciplinary and contemporary aspects of astronomy with the object of providing a perspective of our place in the physical universe. Topics will include the solar system, stars and stellar evolution, pulsars, black holes, quasars and cosmology. Students are encouraged to suggest and participate in discussion on items of special interest.

Pre-Requisite(s): None

Co-Requisite(s): None

Restriction(s): Students with standing in any other 1000 level course credit in physics (except (PHYS*1020 or PHYS*1300), PHYS*1810) may not use this course for credit. B.Sc. Students may not take this course for credit.

Method of Delivery: Online

Final Exam

Date: Tuesday, December 5, 2017

Time: 7:00 pm ET to 9:00 pm ET

Location: On campus

Instructional Support

Instructor

Elisabeth Nicol

Email: enicol@uoguelph.ca

Telephone: (519) 824-4120 Ext. 53771

Office: MacNaughton, Room 329

Learning Resources

Required Textbook

Title: Discovering the Universe

Author(s): Neil F. Comins and William J. Kaufman

Edition / Year: 10th Edition, 2014

Publisher: W. H. Freeman and Co.

ISBN: 978-1464140860

You may purchase the textbook at the [Guelph Campus Co-op Bookstore](#) or the [University of Guelph Bookstore](#). Please note that DE textbooks are located in the Distance Education section of the University of Guelph Bookstore.

<https://guelphcampus.coop/bookstore>

<http://www.bookstore.uoguelph.ca/>

Course Website

[CourseLink](#) (powered by D2L's Brightspace) is the course website and will act as your classroom. It is recommended that you log in to your course website every day to check for announcements, access course materials, and review the weekly schedule and assignment requirements.

<https://courselink.uoguelph.ca/shared/login/login.html>

Learning Outcomes

Course Learning Outcomes

Contemporary Astronomy, as its title suggests, is designed to present a survey of the vast subject of astronomy with the object of leaving the student with an appreciation of the contemporary view of the constitution of the universe. Astronomy, unique among the physical sciences, does not perform experiments on its object of study, but can only observe. Also, and almost as unique, it relies on the accumulation of observations conducted over long periods of

time. A snapshot observation of the universe will yield a lot of information, but a series of them taken over many persons' lifetimes yields so much more.

It is, therefore, difficult to perform meaningful practical exercises in the short span of a one-semester course and so we will not do so. Rather we will merely appreciate the work of astronomers and the body of knowledge that they have provided to us.

The course requires no expertise in college-level mathematics but will require a level of numeracy. The properties of astronomical objects and the state of the universe cannot be comprehended without the use of numbers! There will, however, be many new ideas and concepts requiring close reading of the textbook and the acquisition of an extensive new vocabulary.

We hope that you will find this survey of the universe both enjoyable and informative, providing an appreciation of your surroundings that will continue throughout your life.

By the end of this course, you should:

1. Acquire an appreciation of the construction of the solar system and how its internal motions are the result of simple laws;
2. Understand the similarities and differences in the structure of the planets and their satellites and some of the things this tells us about the origin of the solar system;
3. Understand the constitution of stars, their distances, energy source and evolution; and
4. Learn how stars are aggregated into galaxies and how the distribution of galaxies and other entities lead to a cosmological view of the nature and evolution of the universe as a whole.

Teaching and Learning Activities

Course Structure

This course is organized into twelve units:

- Unit 01: The Planets of the Solar System and their Motions
- Unit 02: The Earth and its Moon
- Unit 03: The Terrestrial Planets
- Unit 04: The Jovian Planets
- Unit 05: The Minor Constituents and the Origin of the Solar System
- Unit 06: Light and Spectra
- Unit 07: The Sun
- Unit 08: The Properties of the Stars
- Unit 09: The Birth and Evolution of Stars
- Unit 10: Globular Clusters, Variable Stars, and the Death of Stars
- Unit 11: Galaxies
- Unit 12: Cosmology

Schedule

Unit 01: The Planets of the Solar System and their Motions

Week 1 – Thursday, September 7 to Sunday, September 17

Readings

- Unit 01 Content
- Textbook: Ancient Greeks and the Geo-centric view of the Universe
 - §2-2
 - Guided Discovery (p. 46)
- Textbook: Heliocentric Revolution
 - §2-3 to 2-6, §2-8
 - Guided Discovery (p. 49)
 - Astronomer's Toolbox 2-3

Activities

- Familiarize yourself with the course website by reviewing the **Start Here** section of the course.
- Review the **Outline** and **Assessments** sections on the course website to learn about course expectations, assessments, and due dates.
- **Unit 01 Quiz** (ungraded)
Opens: Monday, September 7 at 12:00 am ET
Closes: Sunday, September 17 at 11:59 pm ET

Unit 02: The Earth and its Moon

Week 2 – Monday, September 18 to Sunday, September 24

Readings

- Unit 02 Content
- Textbook: Motions of Earth
 - §1-5 to 1-8
- Textbook: The Earth's Moon
 - §1-11 to 1-14

Assessments

- **Unit 02 Quiz**
Opens: Monday, September 18 at 12:00 am ET
Closes: Sunday, September 24 at 11:59 pm ET

Unit 03: The Terrestrial Planets

Week 3 – Monday, September 25 to Sunday, October 1

Readings

- Unit 03 Content
- Textbook: The Earth
 - §6-2 to 6-4
- Textbook: The Earth's Moon
 - § 6-5 to 6-8
- Textbook: Mercury, Venus, Mars
 - Chapter 7

Assessments

- **Unit 03 Quiz**
Opens: Monday, September 25 at 12:00 am ET
Closes: Sunday, October 1 at 11:59 pm ET

Unit 04: The Jovian Planets

Week 4 – Monday, October 2 to Sunday, October 8

Readings

- Unit 04 Content
- Textbook: The Jovian Planets
 - Chapter 8

Note: Look at Summary Tables regarding characteristics of the planets (Table 7-1 p225, Table 8-1 p268)

Assessments

- **Unit 04 Quiz**
Opens: Monday, October 2 at 12:00 am ET
Closes: Sunday, October 8 at 11:59 pm ET

Unit 05: The Minor Constituents and the Origin of the Solar System

Week 5 – Monday, October 9 to Sunday, October 15

Readings

- Unit 05 Contents
- Textbook: Satellites & Rings

- Jupiter: §8-4 (with its intro) to 8-8
- Saturn: §8-10, 8-11
- Uranus: §8-15
- Neptune: §8-17
- Textbook: The Minor Planets
 - Chapter 9 Introduction
 - §9-1 to 9-3
 - Comets: §9-6(with its intro) to 9-9
 - Meteors: §9-10 to 9-13
- Textbook: Origins of the Solar System
 - Chapter 5

Assessments

- **Unit 05 Quiz**
 Opens: Monday, October 9 at 12:00 am ET
 Closes: Sunday, October 15 at 11:59 pm ET

Unit 06: Light and Spectra

Week 6 – Monday, October 16 to Sunday, October 22

Readings

- Unit 06 Content
- Textbook: The Nature of Light:
 - §3-1, 3-2 and 3-4
- Textbook: Atomic Physics and Spectra
 - §4-1 to 4-4 (with intros 4-3, 4-4), §4-7
 - Astronomer's Toolbox 4-1 and 4-3

Assessments

- **Unit 06 Quiz**
 Opens: Monday, October 16 at 12:00 am ET
 Closes: Sunday, October 22 at 11:59 pm ET
- **Midterm 1**
 Opens: Wednesday, October 18 at 12:00 am ET
 Closes: Wednesday, October 18 at 11:59 pm ET

Unit 07: The Sun

Week 7 – Monday, October 23 to Sunday, October 29

Readings

- Unit 07 Content
- Textbook: The Sun
 - §10-1 to 10-5, §10-7 ,10-8,10-10
 - Astronomer's Toolbox 10-1

Assessments

- **Unit 07 Quiz**
Opens: Monday, October 23 at 12:00 am ET
Closes: Sunday, October 29 at 11:59 pm ET

Unit 08: The Properties of the Stars

Week 8 – Monday, October 30 to Sunday, November 5 (*40th Class Day: Friday, November 3*)

Readings

- Unit 08 Content
- Textbook: Properties of Stars
 - §11-1 to 11-12
 - Astronomer's Toolbox 11-1, 11-2, 11-4

Assessments

- **Unit 08 Quiz**
Opens: Monday, October 30 at 12:00 am ET
Closes: Sunday, November 5 at 11:59 pm ET

Unit 09: The Birth and Evolution of Stars

Week 9 – Monday, November 6 to Sunday, November 12

Readings

- Unit 09 Content
- Textbook: Evolution of Stars
 - Introduction, §12-1 to 12-4, §12-6, 12-7, §12-9 to 12-11

Assessments

- **Unit 09 Quiz**
Opens: Monday, November 6 at 12:00 am ET

Closes: Sunday, November 12 at 11:59 pm ET

Unit 10: Globular Clusters, Variable Stars, and the Death of Stars

Week 10 – Monday, November 13 to Sunday, November 19

Readings

- Unit 10 Content
- Textbook: Variable Stars
 - §12-12 to 12-14
- Textbook: Death of Stars
 - Introduction, §13-1 to 13-8
 - §13-10 to 13-11, and §13-13
- Textbook: Black Holes
 - §14-1 to 14-5, 14-7, 14-8
 - Astronomer's Toolbox 14-1

Assessments

- **Unit 10 Quiz**
Opens: Monday, November 13 at 12:00 am ET
Closes: Sunday, November 19 at 11:59 pm ET
- **Midterm 2**
Opens: Wednesday, November 15 at 12:00 am ET
Closes: Wednesday, November 15 at 11:59 pm ET

Unit 11: Galaxies

Week 11 – Monday, November 20 to Sunday, November 26

Readings

- Unit 11 Content
- Textbook: Our Galaxy
 - Introduction, §15-1 to 15-7
- Textbook: Other Galaxies
 - §16-1 to 16-6, §16-8 to 16-12 (with intro), §16-13
 - Astronomer's Toolbox 16-1

Assessments

- **Unit 11 Quiz**

Opens: Monday, November 20 at 12:00 am ET
Closes: Sunday, November 26 at 11:59 pm ET

Unit 12: Cosmology

Week 12 – Monday, November 27 to Friday, December 1

Readings

- Unit 12 Content
- Textbook: Quasars
 - Introduction, §17-1 to 17-5
- Textbook: Other Galaxies
 - §18-1 to 18-4, §18-6 to 18-15
 - Astronomer's Toolbox 18-1

Activities

- **Unit 12 Quiz** (ungraded)
Opens: Monday, November 27 at 12:00 am ET
Closes: Friday, December 1 at 11:59 pm ET

Assessment

The grade determination for this course is indicated in the following table. A brief description of each assessment is provided below. Select **Content** on the navbar to locate **Assessments** in the table of contents panel to review further details of each assessment. Due dates can be found under the Schedule heading of this outline.

Table 1: Course Assessment

Assessment Item	Weight
Online Quizzes	20%
Midterms (2 @ 15% each)	30%
Final Exam	50%
Total	100%

Assessment Descriptions

Online Quizzes

This course will have an online quiz to be taken each week, 10 of these (Weeks 2-11) will contribute to your overall course grade. The other 2 quizzes (Weeks 1 & 12) are to be used for your own practice and self-assessment.

The questions on the quizzes are mostly multiple choice and are strictly on the assigned readings of the week in question. They are intended to direct your attention to the important points in the reading and their strict timetable is to keep you from falling behind in the course. Quizzes will usually consist of 10 questions, the first 5 are designed to test your grasp of the basic concepts in the unit and the last 5 are typical of questions that may appear on the midterms or final exam.

Midterms

There will be two online midterm tests of 30 multiple choice questions to be completed in 30 minutes. Midterm 1 will cover material from Units 01-05 and Midterm 2 will cover material from Units 06-09.

Final Exam

This course requires you to write a traditional sit-down final exam. Final exams are written on campus at the University of Guelph or at alternate locations for students at a distance. The exam will consist of two parts of equal weight, part one will consist of multiple-choice questions similar to those seen in the weekly quizzes. Part two will consist of some matching or short answer questions which may require you to interpret diagrams or make simple sketches.

It is assumed that all DE students will be writing their final examination on campus at the University of Guelph. University of Guelph degree and associate diploma students must check [WebAdvisor](#) for their examination schedule. Open Learning program students must check the [Open Learning Program Final Examination Schedule](#) for their examination schedule.

If you are studying at a distance, you can request to write your final exam at an alternate location. It is recommended that you make arrangements as early as possible in the semester since changes cannot be guaranteed after the deadline. Exam schedules for off-campus exams will be emailed by Week 9 of the course. For more information, please visit [Final Exams](#).

<https://webadvisor.uoguelph.ca/>

<http://opened.uoguelph.ca/student-resources/Open-Learning-Program-Final-Exam-Schedule>

<http://opened.uoguelph.ca/student-resources/final-exams>

Course Technologies and Technical Support

CourseLink System Requirements

You are responsible for ensuring that your computer system meets the necessary [system requirements](#). Use the [browser check](#) tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window).

<http://spaces.uoguelph.ca/ed/system-requirements/>

<https://courselink.uoguelph.ca/d2l/systemCheck>

Technical Skills

As part of your online experience, you are expected to use a variety of technology as part of your learning:

- Manage files and folders on your computer (e.g., save, name, copy, backup, rename, delete, and check properties);
- Install software, security, and virus protection;
- Use office applications (e.g., Word, PowerPoint, Excel, or similar) to create documents;
- Be comfortable uploading and downloading saved files;
- Communicate using email (e.g., create, receive, reply, print, send, and download attachments);
- Navigate the CourseLink learning environment (the instructions for this are given in your course);
- Communicate using a discussion board (e.g., read, search, post, reply, follow threads) in the CourseLink website;
- Access, navigate, and search the Internet using a web browser (e.g., Firefox, Internet Explorer); and
- Perform online research using various search engines (e.g., Google) and library databases.

Course Technologies

CourseLink

Distance Education courses are offered entirely online using CourseLink (powered by D2L's Brightspace), the University of Guelph's online learning management system (LMS). By using this service, you agree to comply with the [University of Guelph's Access and Privacy Guidelines](#). Please visit the D2L website to review the [Brightspace privacy statement](#) and [Brightspace Learning Environment web accessibility standards](#).

<http://www.uoguelph.ca/web/privacy/>

<https://www.d2l.com/legal/privacy/>

<https://www.d2l.com/accessibility/standards/>

Technical Support

If you need any assistance with the software tools or the CourseLink website, contact CourseLink Support.

CourseLink Support

University of Guelph

Day Hall, Room 211

Email: courselink@uoguelph.ca

Tel: 519-824-4120 ext. 56939
Toll-Free (CAN/USA): 1-866-275-1478

Walk-In Hours (Eastern Time):

Monday thru Friday: 8:30 am–4:30 pm

Phone/Email Hours (Eastern Time):

Monday thru Friday: 8:30 am–8:30 pm

Saturday: 10:00 am–4:00 pm

Sunday: 12:00 pm–6:00 pm

Course Specific Standard Statements

Acceptable Use

The University of Guelph has an [Acceptable Use Policy](https://www.uoguelph.ca/ccs/infosec/aup), which you are expected to adhere to.

<https://www.uoguelph.ca/ccs/infosec/aup>

Communicating with Your Instructor

During the course, your instructor will interact with you on various course matters on the course website using the following ways of communication:

- **Announcements:** The instructor will use **Announcements** on the Course Home page to provide you with course reminders and updates. Please check this section frequently for course updates from your instructor.
- **General Astronomy (Main Class) Discussion:** Use this discussion forum to ask questions of your instructor about content or course-related issues with which you are unfamiliar. If you encounter difficulties, the instructor is here to help you. Please post general course-related questions to the discussion forum so that all students have an opportunity to review the response. To access this discussion forum, select **Discussions** from the **Tools** dropdown menu.
- **Email:** If you have a conflict that prevents you from completing course requirements, or have a question concerning a personal matter, you can send your instructor a private message by email. The instructor will respond to your email within 48 to 72 hours.
- **Skype:** For questions about the course material, please post them in the discussion forum for the course and your instructor will answer you there. It allows others to benefit from your question and the answer - much like asking questions in a traditional classroom session. Should you still not understand a point after using the discussion forum, it may be possible to discuss a complex question further in a Skype meeting with the instructor.

Netiquette Expectations

For Distance Education courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students;
- Using obscene or offensive language online;
- Copying or presenting someone else's work as your own;
- Adapting information from the Internet without using proper citations or references;
- Buying or selling term papers or assessments;
- Posting or selling course materials to course notes websites;
- Having someone else complete your quiz or completing a quiz for/with another student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student or instructor online;
- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
- Attempting to compromise the security or functionality of the learning management system; and
- Sharing your username and password.

Late Policy

Extensions will be considered for medical reasons or other extenuating circumstances. If you require an extension, discuss this with the instructor as soon as possible and well before the due date. Barring exceptional circumstances, extensions will not be granted once the due date has passed. These rules are not designed to be arbitrary, nor are they inflexible. They are designed to keep you organized, to ensure that all students have the same amount of time to work on assignments, and to help to return marked materials to you in the shortest possible time.

Obtaining Grades and Feedback

Unofficial assessment marks will be available in the **Grades** tool of the course website.

Your instructor will have grades posted online within 2 weeks of the submission deadline, if the assignment was submitted on time. Once your assignments are marked you can view your grades on the course website by selecting **Grades** from the **Tools** dropdown menu on the navbar. Your course will remain open to you for seven days following the last day of the final exam period.

University of Guelph degree students can access their final grade by logging into [WebAdvisor](#) (using your U of G central ID). Open Learning program students should log in to the [OpenEd Student Portal](#) to view their final grade (using the same username and password you have been using for your courses).

<https://webadvisor.uoguelph.ca/>

<https://courses.opened.uoguelph.ca/portal/logon.do?method=load>

Rights and Responsibilities When Learning Online

For Distance Education (DE) courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

For more information on your rights and responsibilities when learning in the online environment, visit [Rights and Responsibilities](#).

<http://opened.uoguelph.ca/student-resources/rights-and-responsibilities>

University Standard Statements

University of Guelph: Undergraduate Policies

As a student of the University of Guelph, it is important for you to understand your rights and responsibilities and the academic rules and regulations that you must abide by.

If you are a registered **University of Guelph Degree Student**, consult the [Undergraduate Calendar](#) for the rules, regulations, curricula, programs and fees for current and previous academic years.

If you are an **Open Learning Program Student**, consult the [Open Learning Program Calendar](#) for information about University of Guelph administrative policies, procedures and services.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/>

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

Email Communication

University of Guelph Degree Students

As per university regulations, all students are required to check their uoguelph.ca e-mail account regularly: e-mail is the official route of communication between the University and its students.

Open Learning Program Students

Check your email account (the account you provided upon registration) regularly for important communications, as this is the primary conduit by which the Open Learning and Educational Support will notify you of events, deadlines, announcements or any other official information.

When You Cannot Meet Course Requirements

When you find yourself unable to meet an in-course requirement due to illness or compassionate reasons, please advise your course instructor **in writing**, with your name, ID number and email contact.

University of Guelph Degree Students

Consult the [Undergraduate Calendar](#) for information on regulations and procedures for Academic Consideration.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Open Learning Program Students

Please refer to the [Open Learning Program Calendar](#) for information on regulations and procedures for requesting Academic Consideration.

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

Drop Date

University of Guelph Degree Students

The last date to drop one-semester courses, without academic penalty, is indicated on the Schedule section of this course outline. [Review the Undergraduate Calendar for regulations and procedures for Dropping Courses.](#)

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Open Learning Program Students

Please refer to the [Open Learning Program Calendar](#).

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

Copies of Assignments

Keep paper and/or other reliable back-up copies of all assignments: you may be asked to resubmit work at any time.

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment.

University of Guelph Degree Students

Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Accessibility Services as soon as possible.

For more information, contact Accessibility Services at 519-824-4120 ext. 56208, [email Accessibility Services](#) or visit the [Accessibility Services website](#).

accessibility@uoguelph.ca

<https://wellness.uoguelph.ca/accessibility/>

Open Learning Program Students

If you are an Open Learning program student who requires academic accommodation, please [contact the Academic Assistant to the Director](#). Please ensure that you contact us before the end of the first week of your course (every semester) in order to avoid any delays in support. Documentation from a health professional is required for all academic accommodations. Please note that all information provided will be held in confidence.

If you require textbooks produced in an alternate format (e.g., DAISY, Braille, large print or eText), please [contact the Academic Assistant to the Director](#) at least two months prior to the course start date. If contact is not made within the suggested time frame, support may be delayed. It is recommended that you refer to the course outline before beginning your course in order to determine the required readings.

The provision of academic accommodation is a shared responsibility between OpenEd and the student requesting accommodation. It is recognized that academic accommodations are intended to “level the playing field” for students with disabilities.

jessica.martin@uoguelph.ca

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The [Academic Misconduct Policy](#) is detailed in the Undergraduate Calendar.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Copyright Notice

Content within this course is copyright protected. Third party copyrighted materials (such as book chapters and articles) have either been licensed for use in this course, or have been copied under an exception or limitation in Canadian Copyright law.

The fair dealing exemption in Canada's Copyright Act permits students to reproduce short excerpts from copyright-protected materials for purposes such as research, education, private study, criticism and review, with proper attribution. Any other copying, communicating, or distribution of any content provided in this course, except as permitted by law, may be an infringement of copyright if done without proper license or the consent of the copyright owner. Examples of infringing uses of copyrighted works would include uploading materials to a commercial third party web site, or making paper or electronic reproductions of all, or a substantial part, of works such as textbooks for commercial purposes.

Students who upload to CourseLink copyrighted materials such as book chapters, journal articles, or materials taken from the Internet, must ensure that they comply with Canadian Copyright law or with the terms of the University's electronic resource licenses.

For more information about students' rights and obligations with respect to copyrighted works, review [Fair Dealing Guidance for Students](#).

http://www.lib.uoguelph.ca/sites/default/files/fair_dealing_policy_0.pdf

Plagiarism Detection Software

Students should be aware that faculty have the right to use software to aid in the detection of plagiarism or copying and to examine students orally on submitted work. For students found guilty of academic misconduct, serious penalties, up to and including suspension or expulsion from the University can be imposed.

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.