Astronomy 101 - Exploring the Night Sky - Spring 2016

Instructor: Margaret Gwyn Email: astro101@uvic.ca Wepage: http://coursespaces.uvic.ca

Office hours: Tuesdays from 1 – 2 pm in Elliot 412

Required materials

- Astronomy Today by Chaisson & McMillan, 8th edition or older (online component is not required)
- Astro 101 Lab Manual
- Gen 2 i>clicker, registered through My Page
 - o Go to www.uvic.ca/mypage and login with your NetLink ID and password
 - Click on the **Student services** link, located on the left-hand menu.
 - o Click on the **iClicker** tab, located in the top menu bar.
 - o Enter your i>clicker's serial number and click **submit**.

Course overview:

- Tour of the Solar System
- Searching for extraterrestrial intelligence
- Astronomy from prehistoric times to today
- Discoveries of recent space explorations

This course has no prerequisites beyond high school graduation and is taught at a minimal level of mathematics. Students with first-year college or university physics and mathematics backgrounds may wish to consider taking ASTR 150 and/or 250

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. Please be thinking about this important activity, especially the following three questions, during the course.

- What strengths did your **instructor** demonstrate that helped you learn in this course?
- Please provide specific suggestions as to how the **instructor** could have helped you learn more effectively.
- Please provide specific suggestions as to how this **course** could be improved.

Marking Scheme:

- 10%: i>clicker questions (once per class)
- 25%: Labs (five per term)
- 30%: Quizzes (four per term)
- 35%: Final exam (to be scheduled sometime during April 7 22)

Please note:

- You must pass both the lab and the lecture components in order to pass the course
- Quizzes must be written on the scheduled dates
- The final exam schedule will be posted in mid-February travel plans should be made **after** the final exam timetable has been posted
- Marks will be posted on the course website with student ID numbers but not names
- Percentage grades will be converted to UVic's 9-point GPA system according to the official Undergraduate Grading Scale as described in the Calendar
- You are expected to read and adhere to UVic's Policy on Academic Integrity, which is attached to this course outline.

Tentative Schedule:

Date	Subject	Chapter	Labs this week
Jan 5	Introduction		
Jan 6	The view from here	1.3, 1.4	
Jan 8	Solar System overview	6.3 – 6.5	
Jan 12	Formation of the Solar System	6.6, 6.7,	#2 Planets
		16.6	
Jan 13	The Sun	16.1 - 16.5	
Jan 15	The Earth	7.2, 7.5, 7.6, 1.4	
Jan 19	The Moon	8	
Jan 20	Mercury and Venus	8, 9, 1.5	
Jan 22	Quiz #1	0, 7, 1.5	
Jan 26	Mars	10	#3 Solar
Jan 27	Asteroids and Meteoroids	14.1, 14.4	#3 301a1
Jan 29	Jupiter	11	
Feb 2	Saturn	12	
Feb 3	Uranus and Neptune	13	
Feb 5	Quiz #2		
Feb 9	·		
Feb 10	READING BREAK		
Feb 12			
Feb 16	Pluto and beyond	14.2, 14.3	#4 Moon
Feb 17	Water and life	28.1, 28.2	
Feb 19	Life in the Solar System	28.2	
Feb 22	Searching for planets	15.3	
Feb 23	Extrasolar planet inventory	15.4, 15.5	
Feb 25	Searching for intelligence	28.3, 28.4	
Mar 1	Quiz #3		#6 Spectra
Mar 2	Ancient astronomy	2.1	-
Mar 4	Geocentric to Heliocentric	2.2, 2.3	
Mar 8	Galileo and telescopes	2.4, 5	
Mar 9	Kelper and Brahe	2.5	
Mar 11	Newton and gravity	2.7	
N/ 15			
Mar 15	Quiz #4		#5 SETI
Mar 16	Astronomers today	-	#5 SETI
	Ç	-	#5 SETI
Mar 16	Astronomers today		#5 SETI
Mar 16 Mar 18 Mar 22 Mar 23	Astronomers today The space race Missions to Mars Asteroid and comet exploration		#5 SETI
Mar 16 Mar 18 Mar 22	Astronomers today The space race Missions to Mars Asteroid and comet exploration		#5 SETI
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Policy on Academic Integrity

Please note: the following is an excerpt from the University of Victoria Calendar and is available online at: http://www.uvic.ca/calendar/FACS/UnIn/UARe/PoAcI.html. In the case of any discrepancies between the following and the information published in the Calendar, the information in the Calendar will be taken as correct.

Principles of Academic Integrity

Academic integrity requires commitment to the values of honesty, trust, fairness, respect, and responsibility. It is expected that students, faculty members and staff at the University of Victoria, as members of an intellectual community, will adhere to these ethical values in all activities related to learning, teaching, research and service. Any action that contravenes this standard, including misrepresentation, falsification or deception, undermines the intention and worth of scholarly work and violates the fundamental academic rights of members of our community. This policy is designed to ensure that the university's standards are upheld in a fair and transparent fashion.

Nothing in this policy is intended to prohibit students from developing their academic skills through the exchange of ideas and the utilization of resources available at the university to support learning (e.g., The Writing Centre). Students who are in doubt as to what constitutes a violation of academic integrity in a particular instance should consult their course instructor.

Definitions

In this policy:

- "work" is defined as including the following: written material, laboratory work, computer work, computer code, assignments, research materials, research results, musical or art works, oral reports, audiovisual or recorded presentations, lesson plans, and material in any medium submitted to an instructor for grading purposes.
- "Dean" is defined as the Dean of a student's faculty and, in the case of graduate students, is defined as the Dean of Graduate Studies.
- "Chair" is defined as including the Chair or Director of a unit or, in the case of non-departmentalized faculties, the Dean.
- "instructor" is defined to include instructors and graduate supervisors.

Academic Integrity Violations

Academic integrity violations covered by this policy can take a number of forms, including the following:

Plagiarism

A student commits plagiarism when he or she:

- submits the work of another person in whole or in part as original work
- gives inadequate attribution to an author or creator whose work is incorporated into the student's work, including failing to indicate clearly (through accepted practices within the discipline, such as footnotes, internal references and the crediting of all verbatim passages through indentations of longer passages or the use of quotation marks) the inclusion of another individual's work
- paraphrases material from a source without sufficient acknowledgement as described above
- The university reserves the right to use plagiarism detection software programs to detect plagiarism in essays, term papers and other work.

Multiple Submission

Multiple submission is the resubmission of work by a student that has been used in identical or similar form to fulfill any academic requirement at UVic or another institution. Students who do so without prior permission from their instructor are subject to penalty.

Falsifying Materials Subject to Academic Evaluation

Falsifying materials subject to academic evaluation includes, but is not limited to:

- fraudulently manipulating laboratory processes, electronic data or research data in order to achieve desired results
- using work prepared in whole or in part by someone else (e.g., commercially prepared essays) and submitting it as
 one's own
- citing a source from which material was not obtained
- using a quoted reference from a non-original source while implying reference to the original source
- submitting false records, information or data, in writing or orally

Cheating on Work, Tests and Examinations

Cheating includes, but is not limited to:

- copying the answers or other work of another person
- sharing information or answers when doing take-home assignments, tests or examinations except where the instructor has authorized collaborative work
- having in an examination or test any materials or equipment other than those authorized by the examiners
- accessing unauthorized information when doing take-home assignments, tests or examinations
- impersonating a student on an examination or test, or being assigned the results of such impersonation
- accessing or attempting to access examinations or tests before it is permitted to do so

Students found communicating with one another in any way or having unauthorized books, papers, notes or electronic devices in their possession during a test or examination will be considered to be in violation of this policy.

Aiding Others to Cheat

It is a violation to help others or attempt to help others to engage in any of the conduct described above.

Procedures for Dealing with Violations of Academic Integrity

Procedures for determining the nature of alleged violations involve primarily the course instructor and the Chair. Procedures for determining an appropriate penalty also involve Deans, the Vice-President Academic and Provost and, in the most serious cases, the President.

Allegations

Alleged violations must be documented by the instructor, who must inform the Chair. The Chair shall then inform the student in writing of the nature of the allegation and give the student a reasonable opportunity to respond to the allegation. Normally, this shall involve a meeting between the instructor, the Chair, the student and, if the student requests in advance, another party chosen by the student to act as the student's adviser. If the student refuses to provide a response to the allegation or to participate in the process, the Chair may proceed to make a determination.

Determining the Nature of the Violation

The Chair shall make a determination as to whether compelling information exists to support the allegation.

Determining Appropriate Penalties

If there is compelling information to support the allegation, the Chair shall contact the Office of the Registrar to determine if the student's record contains any other confirmed academic integrity violations.

If there is no record of prior violations, the Chair shall make a determination with respect to the appropriate penalty, in accordance with this policy.

Referral to the Dean

Where there have been one or more prior violations and the Chair has determined that compelling information exists to support the allegation, the Chair shall forward the case to the Dean (or the Dean's designate. In the Faculties of Humanities, Science and Social Sciences, the designate may be the Associate Dean Academic Advising). In situations where the student is registered in more than one faculty, the case will be forwarded to the Dean responsible for the course. The Chair may submit a recommendation to the Dean with respect to a proposed penalty.

Letters of Reprimand

Any penalty will be accompanied by a letter of reprimand which will be written by the authority (Chair, Dean, President) responsible for imposing the penalty. The letter of reprimand will be sent to the student and a copy shall be included in the record maintained by the Office of the Registrar.

Rights of Appeal

Students must be given the right to be heard at each stage, and have the right to appeal decisions in accordance with university policy, procedures and regulations. A student may:

- appeal a decision made by the Chair to the Dean of the faculty in which the student is registered within 21 business days of the date of the Chair's decision.
- appeal a decision made by the President under the provisions of section 61 of the University Act to the Senate Committee on Appeals in accordance with the Senate Committee on Appeals' Terms of Reference and Procedural Guidelines.

Deans who receive an appeal of the decision of a Chair should attempt to make a finding with respect to the appeal within 21 business days. In the case of a successful appeal, any penalty will be rescinded.

Penalties

Penalties for First Academic Integrity Violation

In situations where a determination is made that a student has committed a first academic integrity violation, the following penalties will normally be imposed. The penalties for violations relating to graduate dissertations, theses or final projects are different than those for other violations.

Plagiarism

Single or multiple instances of inadequate attribution of sources should result in a failing grade for the work. A largely or fully plagiarized piece of work should result in a grade of F for the course.

Multiple Submission Without Prior Permission

If a substantial part of a piece of work submitted for one course is essentially the same as part or all of a piece of work submitted for another course, this should result in a failing grade for the assignment in one of the courses. If the same piece of work is submitted for two courses, this should result in a grade of F for one of the courses. The penalty normally will be imposed in the second (i.e., later) course in which the work was submitted.

Falsifying Materials

If a substantial part of a piece of work is based on false materials, this should result in a failing grade for the work. If an entire piece of work is based on false materials (e.g., submitting a commercially prepared essay as one's own work), this should result in a grade of F for the course.

Cheating on Exams

Any instance of impersonation of a student during an exam should result in a grade of F for the course for the student being impersonated, and disciplinary probation for the impersonator (if he or she is a student). Isolated instances of copying the work of another student during an exam should result in a grade of zero for the exam. Systematic copying of the work of another student (or any other person with access to the exam questions) should result in a grade of F for the course. Any instance of bringing unauthorized equipment or material into an exam should result in a grade of zero for the exam. Sharing information or answers for take-home assignments and tests when this is clearly prohibited in written instructions should result in a grade of zero for the assignment when such sharing covers a minor part of the work, and a grade of F for the course when such sharing covers a substantial part of the work.

Collaborative Work

In cases in which an instructor has provided clear written instructions prohibiting certain kinds of collaboration on group projects (e.g., students may share research but must write up the results individually), instances of prohibited collaboration on a substantial part of the work should result in a failing grade for the work, while instances of prohibited collaboration on the bulk of the work should result in a grade of F for the course.

In situations where collaborative work is allowed, only the student or students who commit the violation are subject to penalty.

Violations Relating to Graduate Dissertations, Theses or Final Projects

Instances of substantial plagiarism or falsification of materials that affect a minor part of the student's dissertation, thesis or final project should result in a student being placed on disciplinary probation with a notation on the student's transcript that is removed upon graduation, and being required to rewrite the affected section of the dissertation, thesis or final project. While the determination of the nature of the offence will be made by the Chair, this penalty can only be imposed by the Dean.

Instances of plagiarism or falsification of materials that affect a major part of the student's dissertation, thesis or final project should result in the student being placed on disciplinary probation with a notation on the student's transcript that is removed upon graduation, and rejection of the dissertation, thesis or final project, and the student being required to rewrite the work in its entirety. While the determination of the nature of the offence will be made by the Chair, this penalty can only be imposed by the Dean.

The penalties for violations relating to graduate dissertations, theses or final projects may apply where a violation occurs in submitted drafts, as well as in the final version of a dissertation, thesis or final project.

Particularly Unusual or Serious Violations

In the case of a first-time violation that is particularly unusual or serious (e.g. falsification of research results), the Chair may refer the case to the Dean, with a recommendation for a penalty more severe than those normally imposed for a first violation.

Penalties for Second or Subsequent Academic Integrity Violation

Repeat Violations

Any instance of any of the violations described above committed by a student who has already committed one violation, especially if either of the violations merited a grade of F for the course, should result in the student being placed on disciplinary probation. Disciplinary probation will be recorded on the student's transcript. The decision to place a student on disciplinary probation with a notation on the student's transcript that is removed upon graduation can only be made by the Dean.

In situations where a student commits two or more major academic integrity violations, the student may be placed on disciplinary probation with a permanent notation on the student's transcript. The decision to place a student on disciplinary probation with a permanent notation can only be made by the Vice-President Academic and Provost (or delegate), upon recommendation of the Dean. In making this decision, the Vice-President Academic and Provost will consider factors such as the nature of the major violations, and whether there has been an interval between violations such that learning could have taken place.

If a student on disciplinary probation commits another violation, this should result in the student's permanent suspension. This decision can only be taken by the President, on the recommendation of the Dean.

In situations where a graduate student who has been placed on disciplinary probation after a first offence commits a second offence, the student should be subject to permanent suspension. This decision can only be taken by the President, on the recommendation of the Dean.

Non Course-Based Penalties

If a student has withdrawn from a course or the university, or is not registered in a course associated with a violation, this policy must still be followed. If a determination is made that compelling information exists to support the allegation against a student, a letter of reprimand and, if appropriate, a more serious penalty in this policy should be imposed, although no course-based penalty may be imposed.

Records Management

Violations of academic integrity are most serious when repeated. Records of violations of this policy are kept to ensure that students who have committed more than one violation can be identified and appropriately sanctioned. Access to these records is restricted to protect students' right to privacy.

Records

Records relating to academic integrity violations will be stored in the Office of the Registrar. Chairs, Directors and Deans (whichever is responsible for imposing the penalty) will report academic integrity violations and will forward all documentation relating to a violation to the Office of the Registrar once the decision regarding a violation has been made. Records will only be kept in cases where it is determined that compelling information exists to support an allegation. In the case of a successful appeal, the record maintained by the Office of the Registrar will be removed.

Access to Records

Only Deans, the Registrar and the Directors of Undergraduate and Graduate Records will have access to student records regarding academic integrity violations, and normally only to check for repeat violations. Access to records will not normally be granted to instructors, Chairs, or other staff. Chairs may contact the Office of the Registrar to determine if the student's record contains any confirmed academic integrity violations.

- 1. In some special circumstances, there may be reasons why Deans or faculty members need to have access to this information (e.g., character attestation for purposes of professional accreditation). If a faculty intends to request access to students' records for any such purpose, that purpose must be disclosed by the faculty to students.
- 2. Deans and Chairs may request aggregate information from the Office of the Registrar on numbers of violations for purposes of analysis, but in this case the information is to be provided without revealing personal information.

Records Retention

The following retention periods apply to records relating to academic integrity violations:

- 1. First violations 5 years after the final decision regarding the violation has been made.
- 2. Second or subsequent violations where no permanent notation has been made on a student's transcript 5 years after the final decision regarding the violation has been made.
- 3. Second or subsequent violations where a permanent notation has been made on a student's transcript permanent retention.

Notations on a student's transcript will be removed upon graduation or maintained permanently, in accordance with the penalty imposed under this policy.

A student who has had a permanent notation imposed on his or her transcript may make an application to the Vice-President Academic and Provost to have the notation removed. This application may be made 10 years after the final decision regarding the violation has been made and must include compelling evidence to explain why the notation should be removed.