



COURSE OUTLINE

ASTR 100

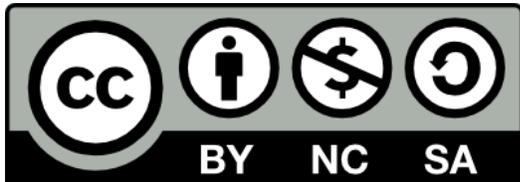
Introduction to Astronomy

3 CREDITS

PREPARED BY: Jaclyn Semple, Instructor
DATE: August 26, 2019

APPROVED BY: Name, Title
DATE: Click or tap to enter a date

APPROVED BY ACADEMIC COUNCIL: Click or tap to enter a date
RENEWED BY ACADEMIC COUNCIL: Click or tap to enter a date



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INTRODUCTION TO ASTRONOMY

INSTRUCTOR: Jaclyn Semple

OFFICE HOURS: TBD

OFFICE LOCATION: A2410

CLASSROOM: A2601

E-MAIL: jsemple@yukoncollege.yk.ca

TIME: Wednesdays 6pm-9pm

TELEPHONE: 867-456-8548

DATES: Jan 6 - Apr 29, 2020

COURSE DESCRIPTION

Astronomy 100 is a survey of the sciences of astronomy and astrophysics. These disciplines undertake to uncover the basic rules and mechanisms that govern the behaviour of planets, stars, galaxies, and the universe as a whole.

The course will show you some of the great triumphs of astronomy, some of the laws that we have discovered that do work, and some areas that still baffle us, where no satisfactory explanation has been found.

ASTR 100 is a non-lab science credit.

PREREQUISITES

None, however students should be comfortable with basic algebraic manipulation and use of roots and exponents.

EQUIVALENCY OR TRANSFERABILITY

This course has been recently re-developed, and its transferability is still being evaluated. Receiving institutions always determine course transferability. Further information and assistance with transfers may be available from the School of Science.

LEARNING OUTCOMES

Upon successful completion of the course, students will have an understanding of:

- The history of astronomy, and how it relates to the overall history of science.
- Basic observational astronomy, both naked-eye and assisted by a telescope.
- The nature and scale of the solar system; motion, similarities, and differences of the planets, moons, and other bodies in the solar system.

- The formation and evolution of the sun and other stars, including supernovae, neutron stars, and black holes.
- The Milky Way galaxy, other galaxies, and galactic morphology.
- Basic cosmology, including the formation, scale, age, and evolution of the universe.

COURSE FORMAT

Lectures: three hours per week. Some lecture time will be used for night-sky observation sessions and guest speakers.

Material will be posted on Moodle and SaplingPlus, including lecture notes, reading assignments, course announcements, suggested textbook problems, and other useful or interesting material related to the course.

ASSESSMENTS:

Attendance & Participation

Regular class attendance and participation is mandatory and will be assessed through the use of in-class activities.

Assignments

There will be weekly SaplingPlus homework assignments due during the term, worth a total of 30% of the final grade. Unless prior arrangements have been made with the instructor, late assignments will not be accepted and will thus receive a mark of 0.

Midterm Test

There will be one midterm test worth 25% of the final grade.

Final Exam

The final examination will cover the entire course and is worth 40% of the final grade. **A minimum mark of 50% on the final exam is required in order to pass the course.** It will be held at the end of the term sometime during the exam period (April 20 - 29). The exact date of the exam will be announced as soon as it is set by the School of Science.

EVALUATION:

Attendance & Participation	5%
Assignments	30%
Midterm Test	25%
Final Exam	40%
Total	100%

REQUIRED TEXTBOOK AND MATERIAL

Comins. *Discovering the Universe*. 11th Edition. New York: W.H. Freeman/Macmillan Learning, 2019. ISBN 9781319277307 (loose-leaf version WITH SaplingPlus access code)

OR you can purchase the stand-alone SaplingPlus access, which includes an online eBook version of the textbook instead. **All assignments will be done through SaplingPlus.**

ACADEMIC AND STUDENT CONDUCT

Information on academic standing and student rights and responsibilities can be found in the current Academic Regulations that are posted on the Student Services/ Admissions & Registration web page.

PLAGIARISM

Plagiarism is a serious academic offence. Plagiarism occurs when a student submits work for credit that includes the words, ideas, or data of others, without citing the source from which the material is taken. Plagiarism can be the deliberate use of a whole piece of work, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Students may use sources which are public domain or licensed under Creative Commons; however, academic documentation standards must still be followed. Except with explicit permission of the instructor, resubmitting work which has previously received credit is also considered plagiarism. Students who plagiarize material for assignments will receive a mark of zero (F) on the assignment and may fail the course. Plagiarism may also result in dismissal from a program of study or the College.

YUKON FIRST NATIONS CORE COMPETENCY

Yukon College recognizes that a greater understanding and awareness of Yukon First Nations history, culture and journey towards self-determination will help to build positive relationships among all Yukon citizens. As a result, to graduate from ANY Yukon College program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukoncollege.yk.ca/yfnccr.

ACADEMIC ACCOMMODATION

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon College Academic Regulations (available on the Yukon College website). It is the student's responsibility to seek these accommodations. If a student requires an academic accommodation, he/she should contact the Learning Assistance Centre (LAC): lac@yukoncollege.yk.ca.

TOPIC OUTLINE

Week	Dates	Chapter	Topic
1	Jan. 6-10	1	Discovering the Night Sky
		2	Gravitation and the Motion of the Planets
2	Jan. 13-17	3	Light and Telescopes
		4	Atomic Physics and Spectra
3	Jan. 20-24	5	Exoplanets and the Formation of Planetary Systems
		6	Formation of the Solar System
4	Jan. 27-31	7	Earth and the Moon
		8	The Other Terrestrial Planets
5	Feb. 3-7	9	The Outer Planets
		10	Vagabonds of the Solar System
6	Feb. 10-14	11	The Sun: Our Extraordinary Ordinary Star
		-	Review
7	Feb. 17-20	-	Midterm
8	Feb. 24-28	12	Characterizing Stars
		13	The Lives of Stars from Birth Through Middle Age
9	Mar. 2-6	14	The Deaths of Stars
10	Mar. 9-13	15	Black Holes: Matters of Gravity
-	Mar. 16-20		READING WEEK
11	Mar. 23-27	16	The Milky Way Galaxy
		17	Galaxies
12	Mar. 30-Apr. 3	18	Quasars and Other
13	Apr. 6-9	19	Cosmology
14	Apr. 14-16	20	Astrobiology & Special Topics (if time)
		-	Exam Review