

Geography 2090: Space Exploration Fall 2017

Instructor:

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Teaching Assistants

Student Last Name A-Ha: Armin Ahmadi (aahma2@uwo.ca)
Student Last Name He-Pi: Erika Freeman (efreeman8@uwo.ca)
Student Last Name Po-Z: Leah Taylor (ltaylo83@uwo.ca)

Class Details

Class Location: SEB-1200
Lecture Times: Tuesday 8:30—9:30 & Thursday: 8:30-10:30

Important Dates

Sept 7:	First Class
Sept 28:	Quiz #1
Oct 9-13:	Fall Reading Week
Oct 26:	Quiz #2
Nov 16:	Quiz #3
Dec 5:	Last Class
Dec 12:	Final Assignment Due

Course Description

From Western Timetable: Survey of human activity in outer space, including history of spaceflight, scientific exploration, economic and military uses of space, natural resources and hazards, legal and ethical implications, and plausible future developments.

From Instructor: This course is designed to introduce students to the importance of Space as a place of endeavor for all humans, and as a reality in their daily lives. Space in this course is explored from the perspective of a geographer, with the goal of understanding it historically, physically, politically and socially. The course is not an astronomy or planetary science course; though, these fields are central to basic understanding of space exploration concepts and will be addressed as necessary. The objectives of the course are for students to: gain requisite knowledge of the history of human interaction with non-Earth places, to understand the physical geography of our solar system, and to recognize the political, scientific and cultural importance of space in daily life.

Course Outcomes

At the conclusion of the course, students will be able to:

- 1) Explain the advancement of human engagement with non-Earth spaces and how these engagements have interacted with other processes in society
- 2) Summarize the key discoveries and findings of major space exploration programs and the evolution of humanity's scientific understanding of the solar system
- 3) Recognize and appraise the value of space technologies to their daily lives
- 4) Evaluate the value and repercussions of past, present, and future space exploration and technologies to society

Evaluation

In-Class Quizzes 60%

Final Project 40%

Course Materials

There is no textbook for the course, **SUGGESTED** helpful readings and resources will be posted on OWL.

Missed or Late Work

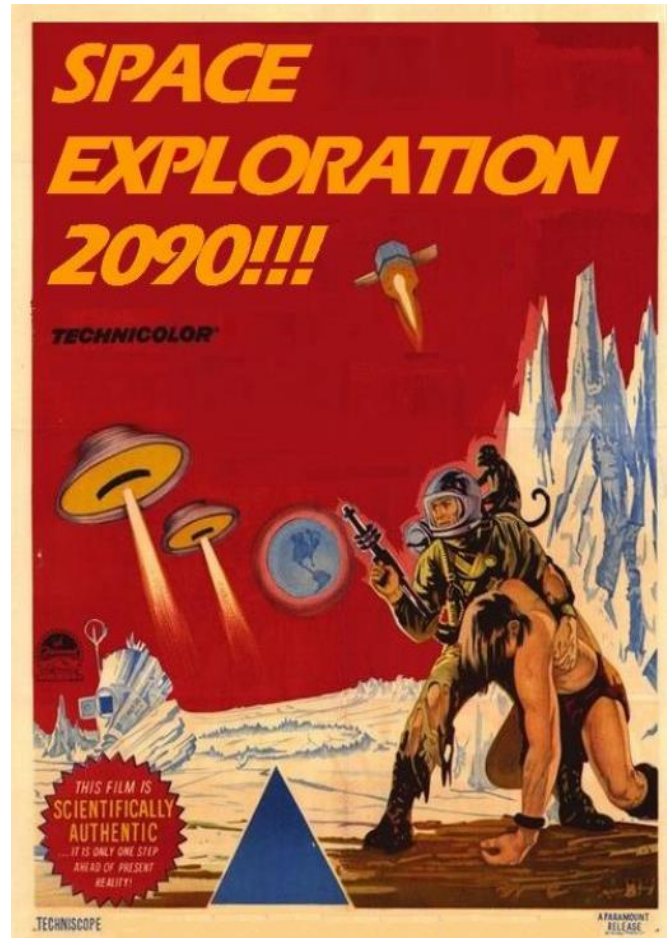
All work, missed or late, can only be made up with proper documentation from academic services of your home faculty.

Prerequisite Checking

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Quizzes

Short quizzes will be held on September 28th, October 26th and November 14th in class. The quizzes will consist of 10 multiple choice questions, 10 fill in the blank questions and 10 short answer questions. Each quiz is marked out of 20. The multiple choice and fill in the blank are worth .5 each, while short answers are each worth 1. The quizzes will consist of lecture material.



Final Project

The final project requires you to choose a historical space mission from the list below and act as the social media coordinator for it. For the project, you will need to create a Twitter profile to tweet about the mission you select (you may use your @uwo.ca email to set up the account or set up a 'dummy email'). You do not have to use your real name for the handle or username of the Twitter account. If you already have a Twitter account, you are more than welcome to use it to complete the assignment and share all the space knowledge goodness with your followers (in this instance the lecturer or TA's will not follow you back). If you use a dummy account, you may set your account to 'private' so no one but the lecturer can see it but you will need to accept the lecturer or TA's follow request if so.

You must tweet 50 facts, with images, about the mission's objectives and accomplishments. Your tweets should be chronological, so tweet number 1 should start at the very beginning of the mission and move forward from there. At the end of the 50 tweets you must compile them into a 'Twitter Moment' which will be graded for accuracy and detail (along with the references). Each tweet should be numbered (example tweets will be shown in class and via @SpaceProfessor2). Creativity is valued, for example, you can tweet like its actually July 1969, or you can take a historical tone, it's up to you, comedy, seriousness, silliness, and somberness are all valid approaches wherever you see fit.

On **December 12th** you will need to submit via OWL the references portion of your assignment which will include your twitter handle and the references for all your tweets, along with photo credits for each image. An uncredited image is the same as no image.
(DO NOT PRINT OUT ALL THE TWEETS).

The assignment will be marked out of 50, each tweet being worth a single mark. To receive the full mark for a tweet it must:

- Contain a **verified fact of substance** related to the mission
- Make use of an **appropriate and effective image**
- The information must be **cited from a verifiable source** (APA or MLA)
- The **image must be credited** (APA or MLA)

Further tips on how to excel on the assignment will be provided throughout the course and in class during weeks 12, 13, and 14, as well as through the instructor's twitter feed. Initial tips include: compile draft tweets outside of Twitter, **go to the library** (there are good academic and popular books on all of these missions, no excuses for bad references!), use multiple sources, and monitor the Twitter accounts of active missions for ideas. Online referencing is acceptable, but be vigilante in the credibility of websites. Finally, Wikipedia is great, but is **NOT ALLOWED** as a source for this project.

Project Options

In order to reduce replication, students must select a mission (or group of missions, i.e. single cell) from the column which corresponds with the first letters of their last/family name. For example, if your last name is *Bednar* and you select 'Mariner Program', you will tweet about all about the Mariner program's objectives, missions, findings, etc...

Last Name A-C	Last Name D-Ha	Last Name He-L	Last Name M-Pe	Last Name Pi-V	Last Name W-Z
Apollo 13	Apollo 15	Luna & Lunokhod	Apollo 10	Ranger & Surveyor	Apollo 12
Apollo 14	Mars Global Surveyor & Pathfinder	Apollo 7, 8, 9	Apollo 17	Apollo 11	STS 1990-1999
Mariner Program	STS 2000-2011	Apollo 16	Viking 1 & 2	STS 1979-1989	Spirit Rover

Lecture Schedule (*Subject to Minor Changes)

Week	Day	Topic
1	07-Sep	Course Introduction: Why Space Matters
2	12-Sep	Space in Culture
	14-Sep	Formation of the Solar System
3	19-Sep	The Geography of the Solar System
	21-Sep	
4	26-Sep	Before the Space Race
	28-Sep	QUIZ 1
5	03-Oct	The Space Race
	05-Oct	Space Actors
6	10-Oct	Fall Reading Week
	12-Oct	
7	17-Oct	Exploring the Outer Solar System
	19-Oct	Exploring the Inner Solar System
8	24-Oct	Aliens
	26-Oct	QUIZ 2
9	31-Oct	Launch Systems, Space Stations, & Orbital Debris
10	02-Nov	
11	07-Nov	The Outer Space Treaty & Space Law
	09-Nov	
12	14-Nov	QUIZ 3
	16-Nov	
13	21-Nov	Lunar Exploration
	23-Nov	The Apollo Program
13	28-Nov	The U.S. Shuttle
	30-Nov	Martian Exploration
14	Dec 5th	Assignment Q&A

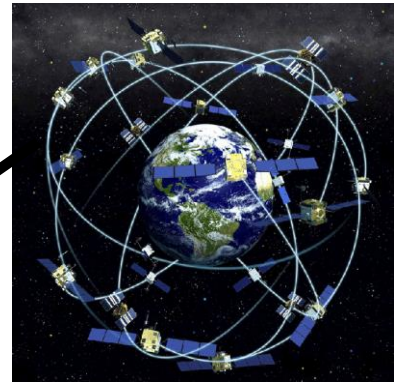


Image: spaceplace.nasa.gov



Image: IMDB



Image: esa.int



Image: unoosa.org

Mental Health

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit the site below for more information on mental health resources:

<http://www.uwo.ca/uwocom/mentalhealth/>.

Western's commitment to accessibility

The University of Western Ontario is committed to achieving barrier free accessibility for persons studying, visiting and working at Western.

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 Ext. 82147 for any specific question regarding an accommodation.

Support Services

Registration Services: <http://www.registrar.uwo.ca/>

Student Development Services: <http://www.sdc.uwo.ca/>

Accommodation and Medical Absence

For UWO Policy on Accommodation for Medical Illness and a downloadable SMC see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf

Students seeking academic accommodation on medical grounds for any missed tests, exams, participation components and/or assignments worth 10% or more of their final grade must apply to the Academic Counselling office of their home Faculty and provide documentation. Academic accommodation cannot be granted by the instructor or department.

Academic Offences (Plagiarism)

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com.