Term Information

Effective Term	Autumn 2017

General Information

Course Bulletin Listing/Subject Area	Slavic Languages & Literatures
Fiscal Unit/Academic Org	Slavic/East European Lang&Cul - D0593
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	3333
Course Title	The Soviet Space Age
Transcript Abbreviation	Soviet Space Age
Course Description	Exploration of Space Age as a technological/cultural phenomenon, focusing on the Soviet period and the Space Race, in historical context and in a comparative perspective. Taught in English, no prerequisites.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites

Exclusions

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	16.0400
Subsidy Level	Baccalaureate Course
Intended Rank	Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

General Education course:

Culture and Ideas; Global Studies (International Issues successors)

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Develop an understanding of the social, cultural, political and economic developments in the Soviet Union in the pre/post-WWII period that are relevant to the class topics, as well as relevant Post-Soviet developments
- Students are able to identify and describe the key events and objectives of the Soviet space program as well as relevant post-Soviet developments
- Students are able to identify the associated technology and describe some of its relevant characteristics
- Analyze works of literature, film, and art to understand how the Soviet Space Age was represented and remembered
- Students are able to evaluate and discuss the societal and cultural impact of the Space Age in Russia/the USSR based on works of literature, film, and art, and elements of popular culture
- Students become aware of the philosophical and spiritual roots of space exploration and are able to discuss their influence on Space Age culture
- Students are able to describe how the key developments in the Soviet space program correlate with the key developments in the American space program
- Students, based on both Soviet and US sources, develop an understanding of the impact of the Soviet space program on American society and culture
- Students are able to compare and contrast the societal and cultural developments associated with the Space Age on the Soviet and on the American side

Content Topic List

- Dreams of space: Foundations of the Space Age
- “Founding fathers” of the Soviet Space Age
- Sputnik’s echoes in US culture
- Soviet youth culture in the Space Age
- Yuri Gagarin
- Valentina Tereshkova, the first woman in space

Attachments

- The Soviet Space Race--Slavic 3333 Syllabus.docx

  (Syllabus. Owner: Peterson,Derek)
- SLAVIC 3333 Assessment Plan.docx

  (GEC Course Assessment Plan. Owner: Peterson,Derek)
- Curriculum Maps Russian Major Oct. 24.docx: Curriculum Map

  (Other Supporting Documentation. Owner: Peterson,Derek)
- space age rationale.pdf: Rationale

  (Other Supporting Documentation. Owner: Peterson,Derek)

Comments

- Please check off appropriate GE boxes on form in curriculum.osu.edu. The form as currently filled out does not indicate that it's a GE request. *(by Vankeerbergen,Bernadette Chantal on 10/29/2016 10:27 AM)*
- updated curriculum map *(by Peterson,Derek on 10/24/2016 04:00 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Peterson,Derek	10/24/2016 03:59 PM	Submitted for Approval
Revision Requested	Peterson,Derek	10/24/2016 04:00 PM	Unit Approval
Submitted	Peterson,Derek	10/24/2016 04:02 PM	Submitted for Approval
Approved	Peterson,Derek	10/28/2016 11:06 AM	Unit Approval
Approved	Heysel,Garett Robert	10/28/2016 08:49 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	10/29/2016 10:27 AM	ASCCAO Approval
Submitted	Peterson,Derek	10/31/2016 08:30 AM	Submitted for Approval
Approved	Peterson,Derek	10/31/2016 08:31 AM	Unit Approval
Approved	Heysel,Garett Robert	11/01/2016 07:45 PM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadette Chantal Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler Hogle,Danielle Nicole	11/01/2016 07:45 PM	ASCCAO Approval

THE SOVIET SPACE AGE
SLAVIC 3333

Lecture 3hrs/week
Instructor: Prof. Yana Hashamova
400F Hagerty Hall
hashamova.1@osu.edu

COURSE DESCRIPTION

The launch of Sputnik, Earth's first artificial satellite (1957) marks the beginning of a fascinating period in world history and culture known as the Space Age. By completing the requirements for this course, you will gain an understanding of the Soviet/Russian Space Age as a technological, social and cultural phenomenon, of its impact on Soviet society and the world, and an insight into the interactions, similarities and differences of the Soviet Space Age and the American Space Age. This class is at the intersection of culture and technology and is designed to encourage you to think critically, analyze and explore a variety of areas of knowledge, some of which may lie outside your main area of interest. There are no prerequisites for enrolling.

In this class we will address questions such as: What is the cultural significance of space flight and space exploration? What is the source of the attraction and the fascination of space? How did the era of space flight change the way people think about themselves, their values, their priorities? Did the Space Age contribute to the definition of a Soviet (Russian) identity, and if so, how? How does the Soviet cultural experience of the Space Age and the Space Race compare to the American experience? To address these questions, we will explore a variety of Soviet and Russian sources, including fiction, memoirs, film, music, and art.

Throughout the class, you will be encouraged to think comparatively – our class materials include information about the American space program, too, and a lot of them focus on the comparison between the two space programs and more generally between the two cultures.

While this course is not about rocket science (and you don't need to be a rocket scientist in order to do a good job in this class) a certain amount of basic familiarity with the technological challenges and achievements of the Space Age is essential in order to have a good understanding of the Space Age as a human and cultural phenomenon. Therefore, we will devote a reasonable amount of time to familiarizing ourselves with the Soviet space program, including the various models of rockets and spacecraft, the various space missions performed over the years, the system of design bureaus, the education system and the military system behind the space program, and the program's leading scientists. This is necessary because the significance of certain developments in the world of ideas

can only be assessed against the background of the general evolution of society, science and technology.

Each class meeting consists of a lecture that typically includes slide presentations and short films. Footage of Soviet space launches and missions, documentaries as well as space-themed film and art will be prominently featured, to give you a chance to immerse in the atmosphere of the age. You have the opportunity to ask questions both before and after the lecture, or even during the lecture if necessary. Most of the time, we will also have group discussions based on questions that will be given to you in class. This is where your participation becomes important. In order to get the most out of the presentations, and be able to participate actively in class discussions, it is best to read the assigned texts and watch the assigned films before class. Your reading/viewing assignments are detailed in the schedule you will find below. Readings amount to about 30-50 pages for each class meeting.

While not essential, you may find it useful to learn the Russian alphabet (in case you don't know it already). This will help you decipher the Russian inscriptions you may encounter in the visual materials presented during the lectures and in your readings (pictures, posters, etc.)

GEC Cultures and Ideas
GE goals: Students evaluate significant cultural phenomena and ideas in order to develop capacities for aesthetic and historical response and judgment; and interpretation and evaluation.
GE outcomes:
1. Students analyze and interpret major forms of human thought, culture, and expression.
2. Students evaluate how ideas influence the character of human beliefs, the perception of reality, and the norms which guide human behavior.

GEC Diversity/Global Studies
GE Goals: Students understand the pluralistic nature of institutions, society, and culture in the United States and across the world in order to become educated, productive, and principled citizens.
GE outcomes:
1. Students understand some of the political, economic, cultural, physical, social, and philosophical aspects of one or more of the world's nations, peoples and cultures outside the U.S.
2. Students recognize the role of national and international diversity in shaping their own attitudes and values as global citizens.

Space flight, space exploration and the creation of a space industry had a profound impact on Soviet/Russian society and culture, comparable to the impact they had on the United States. In this course we explore the Soviet/Russian Space Age from a cultural perspective, and in comparison with the American Space Age; we analyze and interpret works of fiction, memoirs, film, visual art, music and folklore against the background of historical, political and technological facts in order to understand how space technology

and space exploration have influenced the way people think about their role and purpose in human society and in the universe.

REQUIRED TEXTS

Note: Some of these texts are freely available as NASA/DOD/US Govt. publications and can be found in the course materials section in Carmen. Others are freely available online (you will find the link under Course Materials in Carmen). The few that are not are included in your course packet are available at the OSU Bookstore.

-Aitmatov, Chingiz, *The Day Lasts More Than a Hundred Years,* Indiana University Press, 1988 (Order at book store or online)

-Aksyonov, Vasili, *Halfway to the Moon*, Encounter Magazine, 1963 (online)

-Aksyonov, Vasili. *Ticket to the Stars.* Ardis 1981 (course packet)

-Andrews, James T. *In Search of a Red Cosmos: Space Exploration, Public Culture and Soviet Society.* In Dick, Steven J. and Roger Launius, eds. *Societal Impact of Space Flight.* NASA 2007, p. 41-52

-Chertok, Boris. *Rockets and People.* Vol. 1-4. NASA 2011. (selections indicated in assignment schedule)

-Durham, F. Gayle, *Amateur Radio Operation in the Soviet Union.* DOD 1965, p. 1-45

-Hendrickx, Bart. *Korolev: Facts and Myths.* Spaceflight vol.38/1996 p.44-48 (online)

-Horton, Andrew J. *Science Fiction of the Domestic.* in Central Europe Review, vol. 2 no. 1/2000 (online)

-Jenks, Andrew: *The Cult of Yuri Gagarin*. In Mark Bassin, Catriona Kelly, eds. *Soviet and Post Soviet Identities. p. 129-149 (Course packet)*

-Launius, Roger D. *Sputnik and the Origins of the Space Age*, NASA, 2005. (online)

-Llinares, Dario. *The Astronaut: Cultural Mythology and Idealised Masculinity.* Cambridge Scholars, 2011. Introduction: *The Astronaut: Icon of History, Modernity and Masculinity,* p. 1-19. Ch. 2. *Women Astronauts and Gendered News Discourse, p. 61-103 (course packet)*

-Landis, Rob R. *The N-1 and the Soviet Manned Lunar Landing Program. Quest 1992, p.21-30 (online)*

-Malina, Frank J. *On the Visual Fine Arts in the Space Age.*Leonardo, Vol. 3, pp. 323-325. Pergamon Press 1970 (course packet)

-Murphy, Alan: *The Losing Hand: Tradition and Superstition in Space Flight*, The Space Review, May 27, 2008 (online)

-Ross, Valerie. *Who Has the Best Pre Space Launch Superstitions?* Discover Magazine, April 12, 2011 (online)

-Siddiqi, Asif. *Making Spaceflight Modern: A Cultural History of the World's First Space Advocacy Group.* in Dick, Steven J. and Roger Launius, eds. *Societal Impact of Space Flight.* NASA 2007 p. 513-537.

-Siddiqi, Asif: *Spaceflight in the National Imagination*. In Steven J Dick, ed. *Remembering the Space Age*. NASA 2008, p. 17-37

-Tsiolkovsky, K. E. *Exploration of Outer Space by Means of Rocket Devices (Course packet)*

-Voznesensky, Andrei, *Parabolic Ballad*, Encounter Magazine, 1963 (online)

-Walker, Shaun. *The Woman Who Fell to Earth*. The Independent, 14 June 2013 (online)

-Yasinsky, Alexander. *The N-1 Rocket Programme*. Spaceflight vol.35/1993 p. 228-239 (online)

-Young, George M. *Russian Cosmists. The Esoteric Futurism of Nikolai Fedorov*. Oxford UP, 2012. Ch. 9. *The Scientific Cosmists. K. E. Tsiolkovskii* p. 145-154. (course packet)

-Zak, Anatoly. *Did the Soviets Actually Build a Better Space Shuttle?* Popular Mechanics Nov. 19, 2013 (online)

RECOMMENDED READINGS

-Boym, Svetlana, *Kosmos, Remembrances of the Future*. In *Kosmos: A Portrait of the Russian Space Age* by Adam Bartos, Princeton Architectural Press, p. 80-99

-Gerovich, Slava. *Creating Memories: Myth, Identity, and Culture in the Russian Space Age*. in Dick, Steven J., *Remembering the Space Age*. NASA 2008, p. 203-236

Vanchu, Anthony, *Technology as Esoteric Cosmology in Early Soviet Literature*, in Rosenthal, B. G., ed., *The Occult in Russian and Soviet Culture*, Cornell U. Press 1997, ch. 9, p. 203-222

FILMOGRAPHY

Aelita, 1924
Andromeda Nebula, 1967
My Younger Brother, 1962
Taming of the Fire, 1972
Contact,1997
October Sky, 1999
Belka and Strelka, 2010
Knocking on Heaven's Door: Space Race, 2011

The relevant fragments of the films that are not part of your assignments will be shown and discussed in class. The documentary "Knocking on Heaven's Door" is freely available on the BBC web site. You will find a link in the Carmen course content section. Since Contact and October Sky are US productions and are widely available, you are responsible for obtaining and watching them on your own before the date indicated in the weekly schedule.

EXAMS, QUIZZES AND ASSIGNMENTS

A. Short Essays. During the semester, you will have to write 3 short essays on topics specified in your weekly schedule. In general, these assignments require you to read an article, or watch a movie or a documentary, and respond to it on the basis of what you have learned in this class about the Soviet Space Age. For these short essays, you are expected to write at least 2, but no more than 4 double-spaced pages. Submit each essay to the appropriate Carmen drop box in doc, txt or pdf format by the date indicated in your syllabus. There is a penalty of 1 point out of the 6 possible if you are more than 1 day late and 1 point for each week thereafter. All essays are checked for originality.

B. Short quizzes. There are 3 quizzes in this class, spaced about 4 weeks apart. Each short quiz will include: identification questions; multiple choice questions; open-ended short answer questions. In general, each quiz will include alternative or bonus questions.

C. Midterm Exam and Final Exam. The midterm exam and the final exam consist of identification and short answer questions; some of the identification questions will require you to identify, based on a picture, an artefact of the Space Age; some of the short answer questions will require you to comment on a work of art that will be displayed on the screen in class. The last part of the midterm/final is a short essay (1/2-1 page); this assignment requires you to comment on a quote from one of the research articles/works of literature about the Soviet Space Age that were covered in class (you will be able to choose among several such quotes). The midterm exam will cover information presented in the first half of the semester. The final exam will cover everything, focusing however on information presented in the second half of the semester.

D. Final essay. The requirements for the final essay are: no less than 4 pages, double-spaced. Submit to the Carmen drop box by the end of Finals Week. This assignment requires you to a) use the perspective you have gained in this class to comment on the meaning of space flight and space exploration in at least 2 sources that have been presented and discussed in class; b) provide your own, motivated opinion about the importance and the future of space flight and space exploration; c) talk about these things in a comparative perspective – based on both the US and the Soviet/Russian experience of the Space Age.

E. General Requirements:
In order to obtain a good grade, your assignment or essay must:
-Address all questions (or at least 1 of the alternatives where there are alternative questions). Points will be taken off for incomplete answers.
-Demonstrate careful reading of the assigned texts.
-Demonstrate familiarity with the notions/terms introduced in class.
-Demonstrate familiarity with the topics of the lectures and class discussions.
-Be well written, with no grammatical or spelling errors.

ACADEMIC MISCONDUCT

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/."

DISABILITY SERVICES

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; http://www.ods.ohio-state.edu/

GRADING INFORMATION

Your grade for this class is computed as follows:

Attendance and participation	**16%**
Short essays (3 x 6% each)	**18%**
Short quizzes (3 x 6% each)	**18%**
Midterm exam	**16%**
Final essay	**16%**
Final exam	**16%**

GRADING SCALE

The following grading scale is used for the numerical equivalents:

A	93-100	C+	78-79
A-	90-92	C	73-77
B+	88-89	C-	70-72
B	83-87	D+	68-69
B-	80-82	D	65-67
		E	0-64

EXAM SCHEDULE AND DUE DATES FOR ASSIGNMENTS

Short quiz 1	**Second meeting of Week 3**
Essay 1	**First meeting of Week 5**
Short quiz 2	**Second meeting of Week 5**
Essay 2	**First meeting of Week 7**
Midterm exam	**Second meeting of Week 8**
Short quiz 3	**Second meeting of Week 10**
Essay 3	**Second meeting of Week 13**
Final essay	**End of finals week**
Final exam	**Finals week**

ATTENDANCE POLICY

You are expected to attend and participate in every class. An attendance sheet will be circulated at the beginning of class; being late to class/failing to sign the attendance sheet for the day may result in an unexcused absence. Absences are counted starting on the first day of class. Attendance and participation count toward your final grade for the class. For the first 4 unexcused absences, you lose 0.5% of your final grade; you lose 1% of your

final grade for each following unexcused absence. It is your responsibility to obtain class notes or other course materials that you missed. Acceptable reasons for absence include medical emergencies, family emergencies, University athletic competitions/participation in official University events. Each excused absence must be properly documented. If you miss a test, you will not be allowed to make up without proper documentation of your absence.

CLASS TOPICS AND ASSIGNMENTS

	Class Topics	**Assignments**
Week 1	Background: Definitions. Major events. Historical context. Places & People	Read for next time: Chertok vol. 2, 239-246.
Week 2	Dreams of space: Foundations of the Space Age. Tsiolkovsky and the RNII. The 16 Stages of Space Exploration WWII technological legacy and the Cold War. The Soviets in the Atomic Age. The Baikonur Cosmodrome. Anatomy of a space launch	Read for next time: Siddiqi, *Making Spaceflight Modern*. Read for next time: Aksenov: *Ticket to the Stars* (Ch. 1&2)
Week 3	R-7 and the birth of Sputnik. Reflections of Sputnik in Soviet art and literature. "My Younger Brother" "Founding fathers" of the Soviet Space Age: S. P. Korolev. Science education in the USSR in the Space Age. **Short quiz 1**	Read for next time: Chertok vol. 2, 337-368, 379-414, Hendricks *Korolev: Facts and Myths.* Watch for next time: October Sky
Week 4	Sputnik's echoes in US culture. The Space Race. Nikita Khrushchev's role. "Radio" magazine. Space Art & Propaganda part 1: Tekhnika Molodezhi magazine Projections of the future: artists vs. scientists	Read for next time: Chertok, vol. 3, 563-610, Durham, *Amateur Radio* **Essay 1 due next time:** **Read Launius's "Sputnik and the Origins of the Space Age" and formulate a critical response based on the questions provided.**
Week 5	"Founding fathers" continued: V. Glushko, N. Kuznetsov, V. Chelomei and their craft. "Taming of the fire" Soviet youth culture in the Space Age.	Read for next time: Aksenov, Halfway to the Moon Read for next time: Andrews, In *Search of a Red Cosmos.*

	Space Age design and architecture. **Short quiz 2**	
Week 6	Yuri Gagarin, the first man in space and Soviet hero. The cult of space heroes. Gagarin's Song. Monuments of the Space Age The Soviet political/technological hierarchy and the culture of secrecy. The Nedelin and Komarov incidents.	Read for next time: Jenks, *The Cult of Yuri Gagarin*. Chertok, vol. 3, p. 55-84, 629-652 *The Death of Komarov* Read for next time: Llinares, Introduction and Ch. 2, *Women Astronauts and Gendered News Discourse*
Week 7	Valentina Tereshkova, the first woman in space: premises and reactions. Lunokhod. The Venera program. Music of the space age: Voynovich's "14 Minutes to Liftoff" and the story of its creation. "This is Earth". Voznesensky's Parabolic Ballad.	Read for next time: *The Woman who Fell to Earth* **Essay 2 due next time: Read and write a short response to Siddiqui, *Space Flight in the National Imagination* based on the questions in your prompt**
Week 8	Space in the Soviet Press: TASS and Levitan. Space folklore: Beliefs and superstitions of Soviet cosmonauts. Cosmonauts in Soviet popular culture. **Midterm exam & Self-assessment**	Read for next time: Murphy, *The Losing Hand.* Ross, *Who Has the Best Pre Space Launch Superstitions?* Read for next time: Malina, *On the Visual Fine Arts.* Chertok, vol 4. 1-38
Week 9	Space art and propaganda part 2. Shooting for the Moon: The N-1 program. Space flight & the future of humanity in Russian film. "Aelita". "Planet of the Storms". "Andromeda Nebula"	Read for next time: Yasinsky, *The N-1 Rocket*. Chertok, vol. 4, 171-210 Read for next time: Aitmatov ch. 1 and 2
Week 10	Extraterrestrial intelligence in Space Age literature: Aitmatov's take. USA-USSR space collaboration in the Cold War era. Aitmatov cont'd. Soyuz-Apollo and Aitmatov's "Parity"	Read for next time: Horton, *Science Fiction of the Domestic* Read for next time: Aitmatov ch. 5 and 9

Week 11	Aitmatov cont'd. Nature vs. technology, global vs. local, tradition vs. modernity. Buran – The Russian Space Shuttle. The Energia launcher. The Soviet space program at the end of the Cold War. **Short Quiz 3**	Read for next time: Landis, *The N-1*, Zak, *Did the Soviets Actually Build a Better Space Shuttle?* Read for next time: Aitmatov ch. 12.
Week 12	Space for children: Soviet and post-Soviet cultural artefacts. Space in animation: Belka and Strelka "Almaz" series of spacecraft and the Mir space station. Peaceful vs. military uses of space.	Watch for next time: "Contact" Read for next time: Young, *Russian Cosmists*
Week 13	Russian Cosmism: Spirituality and Space. From Fyodorov to Tsiolkovsky The heritage of Cosmism in Russia and abroad. Nostalgia of the Soviet Space Age in contemporary Russia.	Watch for next time: "Knocking on Heaven's Door" **Short essay 3 due next time: Response to "*Knocking on Heaven's Door*" , see prompt**
Week 14	Post-Soviet developments. The ISS. The Angara launcher. The Soviet technological heritage: Soviet Space Age technology outside Russia.	Read for next time: Chertok vol. 4, 210-242 Read for next time: Chertok vol 4, ch. 17; ch. 19, Epilogue
Week 15	Conclusions & Self-assessment	**Submit until end of semester: Final essay. Response to Carl Sagan's Contact and Chingiz Aitmatov – see prompt**

SLAVIC 3333 "The Soviet Space Age"

1. Rationale

The Space Age, which started with the launch of Sputnik by the Soviet Union (1957) has played and still plays a significant role in shaping the world as we know it. The efforts of the Soviet Union and the United States to develop space technologies have resulted in spectacular achievements and have had a profound impact on society and culture. The technological and cultural output of the Space Age has great educational potential, at present, there is no class at OSU that would exploit the significant amount of content available, related specifically to space flight, space exploration, and Space Age culture, for GE purposes.

The Soviet Space Age is particularly appropriate as the focus of a cultures/ideas and diversity GE class in the Slavic Department because:

- Beyond its technological, political and economic importance, it meets the requirement of being a **significant cultural phenomenon**, that had an impact on everyday life, changed society, and found **expression in literature, film, and the arts**. By **interpreting and analyzing** the Soviet/Russian space-related cultural output of the era against the **background of historical/technological facts**, students gain insight into the **human side** of space exploration and space technologies, the **ideas and values** behind the drive to conquer space, while at the same time being exposed to **facts** about the political, economic, military underpinnings of space exploration and space flight.

- The unique parallelism between Soviet and American developments in the Space Age, both on the technological and the cultural side, makes the class uniquely suited to fulfill the Global Studies/Diversity GE goals. The Space Race provides the ideal background for **meaningful comparative analysis at all the relevant levels**: social, cultural, institutional, political, economic, ideological. By including a fair amount of information about the American Space Age and balancing the Soviet and American perspectives, the class offers students the possibility to **form a perspective on their own culture, society, institutions, values** and **understand the similarities, differences and interactions between their own culture and Soviet/Russian culture.**

- By **taking the cultural approach**, emphasizing the human interest, the societal impact and the philosophical and spiritual roots of space exploration, it is possible to present the Space Age topics at a level of generality that **is appropriate for a no-prerequisites GE** class, and **appeal to students regardless of their academic background** or inclinations.

- The technological output of the Space Age and the related cultural developments are of **global significance, are still relevant, and have a very significant human interest factor**. This fact **can be exploited** by a GE class to improve the students' general interest in academic subjects and to **encourage academic inquiry** in a variety of fields, from theoretical sciences to social sciences and humanities, and in this way to **support the mission** of the College of Arts and Sciences and the Ohio State University.

- in particular, the class can be expected to promote enrollment and student retention in **STEM majors and Russian**.

2. Course Objectives

A. Background

As a result of completing the requirements for this class, students:
1) develop an understanding of the social, cultural, political and economic developments in the Soviet Union in the pre/post-WWII period that are relevant to the class topics, as well as relevant Post-Soviet developments
2) are able to identify and describe the key events and objectives of the Soviet space program as well as relevant post-Soviet developments
3) are able to identify the associated technology and describe some of its relevant characteristics.

B. Cultures and Ideas

As a result of completing the requirements for this class, students:
1) Analyze works of literature, film, and art to understand how the Soviet Space Age was represented and remembered;
2) are able to evaluate and discuss the societal and cultural impact of the Space Age in Russia/the USSR based on works of literature, film, and art, and elements of popular culture;
3) become aware of the philosophical and spiritual roots of space exploration and are able to discuss their influence on Space Age culture.

C. Diversity/Global Studies

The activities, content and assignments relevant to the Diversity/Global Studies category of outcomes ensure that students:
1) are able to describe how the key developments in the Soviet space program correlate with the key developments in the American space program.
2) based on both Soviet and US sources, develop an understanding of the impact of the Soviet space program on American society and culture
3) are able to compare and contrast the societal and cultural developments associated with the Space Age on the Soviet and on the American side.

3. Relationship to Other Courses/Curricula

The Soviet Space Age course can be integrated into the Russian major/Russian minor/Slavic and East European minor, as one of the major culture electives. In this capacity, it will complement the existing offerings (Slavic 2230, 3310, Russian 3350, 3351, 3360). While there is no reason to make this class required for any of the department major/minor tracks, it can be expected that certain categories of majors and minors (those with a simultaneous interest in international studies, military science or engineering) will find it better suited for their particular academic track As an advantage, since it would be the only course taught in the department that offers

content situated at the intersection of technology and culture, the Space Age class can be expected to appeal, just as a GEC elective, to constituencies that are usually less represented in the audience of Russian/Slavic studies classes (for example, science and engineering majors).

Among the courses that offer related content, International Studies 4703 (Science, Technology, and the Cold War) is the closest as far as the period concerned, and is concerned with Soviet and American technology. This course explores "how science and technology, especially computer science and arms race technologies, influenced the global conflict between America and the Soviet Union". The Soviet Space Age course, although focusing on space exploration and its cultural, rather than political and military implications, can be a useful background for students enrolling in this class; international studies or history students may find it to their advantage to take Slavic 3333 before Int. Studies 4703. In general, Slavic 3333 can be expected to attract Int Studies and Political Science majors looking to fulfill their Cultures/Ideas GEC requirement.

GEC Course Rationale

1. Relevance of Course Objectives

The Soviet Space Age is uniquely suited as the focus of a Cultures and Ideas and Global Studies/Diversity GE class. Besides its technological, political, military and economic importance, the Space Age meets the requirement of being a significant cultural phenomenon, that had an impact on everyday life, changed society, and found expression in literature, film and the arts. Also, there is a unique parallelism between Soviet and American developments in the Space Age, which involves not only developments in military and civilian space technology, but also cultural and societal developments. The objectives of the class are therefore chosen to:

1) ensure students have the necessary background knowledge
2) enable students to analyze the reflections of the Soviet Space Age in Soviet culture, and on this basis, evaluate its societal impact and the associated changes in cultural perceptions and norms (GE Culture ELO's)
3) ensure students understand the similarities, differences and interactions between Soviet and US developments in the Space Age on several relevant levels (technological, cultural, societal) (GE Global Studies ELO's)

The course objectives that are grouped in the first category (background) are intended to address both the Culture and the Diversity/Global Studies learning outcomes. They are basic knowledge objectives, meant to orient students in the period and field in which they are to perform cultural analysis and cross-cultural comparison. In order to meet the relevant goals, the course must familiarize students with: a) the basics of the political, social, cultural developments of the Soviet Space Age; b) the key people, institutions and events; c) the technology to the extent necessary for the meaningful analysis of cultural output and discussion of the societal/global implications of the Space Age.

The second category of objectives (primarily, but not exclusively relevant for the Cultures and Ideas outcomes) includes objectives that emphasize both knowledge and analytical skills. They are formulated to ensure that the students: a) know how the Space Age was represented and

remembered in Soviet culture; b) are able to evaluate the impact of the Space Age on cultural norms and perceptions based on the interpretation of literature, film, art and popular culture, c) develop an understanding of the philosophical and spiritual roots of space exploration and are able to comment on their cultural significance.

The objectives in the third category are primarily (but not exclusively) relevant for the Diversity and Global Studies goals. They are formulated to offer students a perspective on the societal, institutional and cultural similarities and differences between the US and Russia/the USSR in the Space Age context. They emphasize a) the understanding of the correlation between technological developments on the US and the Soviet/Russian side; b) the understanding and the evaluation of the influence of Soviet developments on American society, c) the comparative analysis of societal and cultural developments in the Space Age on the Soviet and the American side.

2. Relevance of Assigned Readings/Films

There are several types of reading assignments in this class. The text used as the main source of information about the Soviet Space Age is *Rockets and People*, a memoir by Boris Chertok, one of S. P. Korolev's closest collaborators and a key member of the Soviet scientific and space establishment. Chertok's book was chosen because it is a first-hand account of the development of the Soviet space program, covering almost the entire period of interest, and offering details about the institutional, political, social and economic underpinnings of the Soviet Space Age. Also, since it is a personal account, it dedicates a considerable amount of space to the people involved in the program, their values, their behavior, their motivation for working in the space program, their successes and failures, and also (in the case of the top participants in the space program) their personal histories. The portrait of the Space Age that students get from Chertok's book shows both the political/technological/institutional side and the human side of the phenomenon; in addition, the book contains a significant amount of references to the American space program, thus being relevant both to the Culture and the Global Studies/Diversity outcomes. The chapters assigned from Chertok's book follow, for most part, the chronology of the Space Age, helping students structure the information they receive from lectures and other assigned readings. An additional advantage of this choice of text is that it is freely available as a NASA publication.

A second category of texts consists mostly of research articles that offer both background information (historical, political or technical) and elements of cultural analysis.
They are generally used as an introduction to the topic of the next lecture (Dickson, Siddiqi, Andrews, Durham) and their function is to 1) provide students with the historical/technological context necessary for a better understanding of the topic presented, 2) direct the attention of students toward the aspects of the Space Age that are directly relevant to the objectives of the class, e.g. the cultural impact of Sputnik on American society, the impact on American institutions and US-USSR relations, the human significance of Sputnik, the changes it fostered in Soviet culture, youth culture, national identity; 3) exemplify the type of analysis that students are required to do in the writing assignments, and familiarize students with the terms and categories used. Since these texts are read in parallel with Chertok's Space Age memoirs, and the

perspective they offer on the same phenomenon is occasionally different, they are also relevant for the Diversity outcomes (since they analyze both American and Soviet developments or are concerned precisely with the issue of the interaction/mutual influence between the US and the USSR).

A third category contains texts focusing on a particular cultural issue related to space exploration and space flight, like militarism and the culture of secrecy (Hendricks), gender issues in space exploration (Llinares), the Soviet cult of space heroes (Jenks), the depiction of space exploration in Soviet graphic art (Malina), Space Age folklore (Murphy). Some of these texts are also used as the basis for the written assignments that the students must complete during the semester (Launius, Siddiqui, Murphy); the assignments require a critical response based on the integration/comparison of the information in the text and that available from the other readings and video materials.

Finally, the reading assignments include works of literature that along with Chertok's book and the films form the main body of material for cultural analysis and interpretation in this class. Based on these readings, students evaluate the societal and cultural impact of the Space Age in the USSR, and especially its influence on societal values, beliefs, perception and behavioral norms. Aksenov's Halfway to the Moon, despite the space-themed title, is not in itself about space exploration (it is in fact a love story); however, the technology and culture of the Soviet Space Age play a major role in it. The story emphasizes the changes in values and behaviors induced by technological progress, from the perspective of a working-class person (a truck driver from the Russian Far East). *Ticket to the Stars,* involving a space researcher and his younger, rebellious brother, also focuses on the perception of the Space Age at a personal and societal level, and offers students the possibility to evaluate the impact of the Space Age on youth culture and values. Chingiz Aitmatov's novel "The Day Lasts More Than a Hundred Years" focuses, among other things, on the ethical implications of the Space Age, both from a local perspective (the perspective of a small community in the steppes of Kazakhstan in the vicinity of a cosmodrome) and a global perspective (the outer space subplot of the book is centered around the global response to the first contact with an alien world). Both the main plot and the subplot are used to reflect critically on the beliefs and values of the Soviet Space Age against the background of the ancient ways of life of rural Central Asian communities.

The relevant fragments of Russian films will be shown in class. Only two US films that are easily available have been assigned for viewing outside of class. *October Sky*, based on the the autobiography of an American space scientist, exemplifies the global cultural reverberations of the Soviet space program, and specifically its impact on American youth in the 50's. This film was chosen because it raises a number of questions that students can evaluate critically in the context of other assigned readings, such as: How important was Sputnik for the Space Age? To what extent was the American Space Age inspired by Soviet advances and specifically by Sputnik? Which of the possible motivations to conquer space (economic, military, political, other) were relevant for whom at the time the movie refers to? Which ones were favored by propaganda? Class discussions, assignment and test questions based on this film are thus directly relevant to the Global Studies learning outcome concerning the evaluation of the influence of the Soviet Space Age on American society, as well as the one concerning the comparative analysis of societal developments. The second film, Contact, based on a novel written by Carl Sagan, a

prominent American space researcher, was chosen not only because it features the Soviet space station Mir, but also because it explores the humanistic aspirations behind the technological conquests of the Space Age and the philosophic and spiritual motivations behind the scientific concerns of space exploration. This film provides the background against which some of the philosophical concepts that guided the Soviet pioneers of the Space Age (especially Tsiolkovsky) can be meaningfully explored by students, in a comparative perspective (Cultures and Ideas learning outcome #3). It is also the object of analysis and interpretation (together with Chingiz Aitmatov's novel) of the final essay. The reason for including a fair amount of content about the American Space Age the is to enable students to perform a comparative analysis, develop a perspective on their own culture, society, institutions, values and understand the similarities, differences and interactions between their culture and Soviet/Russian culture (Diversity/Global Studies ELO's).

3. Class topics

The background topics subordinated to the foundational knowledge outcomes relevant for both the Culture and the Global Studies categories follow the development of the Space Age and the Space Race in a quasi-chronological manner. The topics scheduled for the first three meetings of the class emphasize definitions, terminology, important facts and figures, and the historical context of the Space Age. Topics based on key events, missions, technologies, post-Soviet developments are included in week 3 (R-7 and Sputnik), week 6 (Gagarin's mission, R-16), week 7 (Tereshkova's mission, planetary science missions), week 9 (N-1 and the Lunar program), week 10 (Soyuz-Apollo), week 11 (Energia-Buran), week 12 (Mir, military missions), week 14 (ISS and contemporary developments.)

The relationship between US and Soviet technological, institutional and societal developments, relevant for the Global Studies learning outcomes, is addressed throughout the course, starting in week 2 with a discussion of the Cold War and the Atomic Age. All the Space Race topics that cover the basic knowledge outcomes referred to above include a discussion of comparable US developments. In addition, there are topics that specifically address the comparison of societal and cultural developments in the Space Age in the US and the USSR and the interaction between the two space programs. The Soviet/Russian higher education system and the typical education of a Russian space engineer are discussed in week 3. The impact of Sputnik on American culture is discussed in week 4, based on the US film "October Sky"; this is in parallel with the discussion of Chertok's notes on the Space Race and the Soviet public reaction to Sputnik. The schedule for the same week includes a topic dedicated to a technological and cultural phenomenon common to the US and the USSR and strongly connected to the Space Age - amateur radio. Weeks 6, 7, and 8 include topics on secrecy and the reflection of failures and accidents in public discourse, the representation of space in news discourse in the USSR and the use of space missions for political and propaganda purposes. Week 8 topics include a comparison between the representation of space in Soviet and US media, based both on Llinares's article and Chertok's memoirs. Week 10 includes a topic dedicated to the Soyuz-Apollo mission and the public perception and cultural representation of US-Soviet collaboration in space matters. The final topics relevant for the Global Studies/Diversity categories include the

comparison of the US and Soviet Space Shuttle programs, and the post-Soviet/current interactions between the US and Russia in the sphere of space exploration (weeks 11 and 14).

The topics dedicated specifically to the analysis and interpretation of different forms of cultural expression and the evaluation of the societal and cultural impact of the Space Age (GE Culture ELO's for this class) begin in week 2 with a discussion of the cultural foundations of the Soviet Space Age and the shift from speculative fiction and science fiction to "hard science" that took place in the 1920's when space enthusiasts, inspired by Tsiolkovskii's works (and not only) started forming scientific societies. In week 3, the discussion of the film "My Younger Brother" and the associated novel "Ticket to the Stars" is relevant for the evaluation of societal attitudes toward space flight and the shift in values and behaviors in the context of the first major successes of space flight. The same topic is continued in week 5 with a discussion of Aksenov's short story "Halfway to the Moon". The cultural impact of Sputnik in the US is discussed in week 4 on the basis of "October Sky", a 1997 film based on the autobiography of an US space engineer. Space-themed art, its role in shaping cultural norms and its relationship to political discourse is also discussed starting in week 4 (space art in science magazines) and continued in week 5 (Space Age design and architecture) 6 (monuments of the Space Age) 9 (Space art and propaganda part 2) and 12 (animation); the role of some iconic popular music works of the Soviet Space Age is discussed in week 7. The impact of the Space Age on the perception of gender in the USSR is addressed in week 7 with a discussion of Valentina Tereshkova's story, based on Dario Llinares's article (*Women Astronauts...)* in parallel with the story of Sally Ride, the first American woman astronaut. The next major topic is centered on the perception of the meaning and purpose of space exploration and the views on the place of human civilization in a universe possibly populated by other intelligent beings, as expressed in Soviet film and fiction (week 9, Soviet film; week 10, Chingiz Aitmatov's novel "The Day Lasts More Than a Hundred Years"). The course concludes with a discussion of the philosophical and spiritual roots of space exploration and space flight based on Aitmatov's novel "The Day.." and Carl Sagan's "Contact"; this rounds off the course as students get a chance to reanalyze the topic of the foundations of the Soviet Space Age discussed in week 2 in light of all the content addressed up to that point, and use the accumulated knowledge and analytical skills to compare the Soviet and US perspective on the meaning and purpose of space exploration as expressed in these two works.

4. Written assignments

The 3 short essays assigned during the semester and the final essay are reaction papers, used to assess the expected learning outcomes and offer students feedback on their learning. The prompts for the written assignments direct students to integrate the historical, technological and cultural facts available to them from class lectures and readings in order to formulate a critical reaction to a research article or work of literature or film. The first of the written assignments focuses mainly on the Diversity/Global Studies outcomes and requires the students to discuss, based on the story of the first Soviet artificial satellite as told by Chertok, and that of the first US satellite – as told by the NASA historian Launius, some of the societal, cultural and political aspects relevant for the beginning of the Space Race. The second writing assignment addresses both the Cultures and Ideas and the Global Studies learning outcomes (specifically the analysis of Space Age art and literature and the comparison of technology-driven societal and cultural changes in the US and USSR) by asking students to react critically to statements from a research

article about issues of national identity in space exploration, on the basis of the information presented up to that point in class and the works of art and literature analyzed in class. The third writing assignment addresses primarily the Cultures/Ideas outcomes (especially the analysis of the philosophical and spiritual roots of space exploration and the cultural significance of space flight) by giving students the possibility to react to a documentary about Russian Cosmists and evaluate the relevance of the information presented in the film in the context of the research article by Young discussed in class in week 13.

The final written assignment requires students to contrast and comment on the views of a Soviet author (Aitmatov) and an American author (Sagan) on the societal changes associated with the Space Age and the meaning and purpose of space exploration. Since it involves the evaluation and discussion of the cultural impact of the Space Age based on the analysis of major forms of expression (literature and film) in a comparative Soviet/US framework, the final essay is relevant for the assessment of both Culture and Diversity/Global Studies outcomes.

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6. GE Assessment Plan

Data for the assessment of the effectiveness of the course in achieving the expected learning outcomes is collected for each of the outcomes from tests and writing assignments. The items used for assessment consist of exam questions and essay topics that are most closely aligned with the relevant course objectives. In addition, a self-assessment questionnaire is administered with the midterm and another one on the last day of class (see syllabus). The data collected, consisting of achievement scores for each relevant class objective, together with the assessment instruments used (tests, essay prompts, self-assessment questions) is archived in a permanent section in Carmen, accessible to instructors and teaching assistants, to facilitate sharing. Changes proposed and adopted shall be archived together with the assessment data, with a clear indication of the relevant learning objective and the assessment results that each particular change is addressing, so that a history of changes is easily accessible.

The table below gives the assessment method used for each of the learning outcomes:

Table 1. Data collection schedule

Category learning outcomes	Objectives	Assessment method (See section a below for examples of direct assessment and section b for indirect.)		
		Test	Writing Assignments	Indirect methods
Both (Background)	Foundational knowledge: Identify/describe major events, people, institutions, social, political and economic context, technology	Quizzes 1-3, midterm, final		Midterm & final self-assessment
Cultures & Ideas	Students analyze and interpret major forms of human thought, culture, and expression. In this case they analyze Soviet literature, art and film of the Space Age	Quizzes 1-3, midterm, final		Midterm & final self-assessment
	Students evaluate how ideas influence the character of human		Essay 2, Midterm	Midterm & final self-assessment

	beliefs, the perception of reality, and the norms which guide human behavior. In this case they valuate the societal & cultural impact of the Space Age in the USSR			
	Describe and evaluate the significance of the philosophical and spiritual roots of the Space Age		Essay 3, Final essay	Final self-assessment
Diversity/Global Studies	Students understand some of the political, economic, cultural, physical, social, and philosophical aspects of one or more of the world's nations, peoples and cultures outside the U.S. In this case they correlate/compare key features and developments in US and USSR space programs	Quizzes 1-3, midterm		Final self-assessment
	Students recognize the role of national and international diversity in shaping their own attitudes and values as global citizens. In this case they evaluate the impact of Soviet developments on US society	Midterm, Final	Essay 1	Midterm self-assessment
	Compare societal and cultural developments in the US and the USSR in the Space Age	Final	Final Essay	Midterm & final self-assessment

The instruments used, the expected achievement level and the follow-up measures for each of the relevant course objectives are detailed below:

a. Direct Assessment:

TABLE 2. Expected achievement/Follow-up

#1, 2 and 3 – Foundational knowledge: identify/describe context and events, people and institutions, technology of the Soviet Space Age		
Assessment instrument	**Expected achievement level**	**Follow-up**
Score based on select multiple choice questions in all quizzes, midterm exam and final exam	- 90 percent of students score 80 percent or more on these questions - aggregate scores for the foundational knowledge questions do not decrease from one test to another	Review test answers in class. Adjust lectures, class discussion topics and readings to ensure students have sufficient contact with the issues that cause them most problems on tests
Examples 1. Use words from the word bank to fill in the blanks: a) Sputnik was launched from the _____ cosmodrome in the Soviet Socialist Republic of _____ on a _____ rocket. b) The designation _____ was used in Soviet press releases for military space payloads. c) The town of Yevpatoriya in Crimea is important to the Soviet space program for _____ d) In the beginning of the 20th century, Russian Cosmists were interested in space travel as a means to achieve_____ e) The _____ space launcher is based on the R-36 ICBM developed by _____ 2. Multiple choice. According to Chertok's "Rockets and People", the development of engines using high boiling point fuels was driven by: a) environmental concerns, b) the increasing cost of fuel, c) concerns related to military uses, d) the rivalry between Korolev and Glushko		

#4 – Analyze Space Age literature, art and film to understand how space exploration was represented and remembered		
Assessment instrument	**Expected achievement level**	**Follow-up**
Score based on select open-ended questions on quizzes, midterm and final	- 80 percent of students score 4 out of 5 points based on grading rubric - aggregate scores for the open ended questions do not go down from one test to another	Review test answers in class. Identify the muddiest points from class discussions. Adjust readings and exam questions accordingly

Examples
1. What is the Vostok 2 poster reproduced below trying to convey about the goals and the values of the Soviet space program? Who do you think is the target public of the poster? Refer to both elements of the poster's design and facts you have learned from lectures and class readings to support your answer.
2. Based on the fragment of the film "Taming of the Fire" shown and discussed in class, and Chertok's memoirs, state a few of the differences between the way Bashkirtsev is portrayed in "Taming of the Fire", and the way the head of the Soviet space program, Korolev, is portrayed in Chertok's book. How can you explain these differences?
3. Name a few of the defining features of the Soviet space hero cult as it applies to Yuri Gagarin. Refer to Andrew Jenks's article and Chertok's memoirs. Which points in Jenks's article do you think Chertok would disagree with, and why?

#5 – Discuss/evaluate the impact of the Space Age on Russian/Soviet culture		
Assessment instrument	**Expected achievement level**	**Follow-up**
Score based on Essay 2 and select open-ended questions in midterm	- 80 percent of students score 4 out of 5 points based on essay grading rubric, 80% or more on open ended questions - aggregate scores for the open ended questions do not go down from one test to another	Review test answers in class. Provide written feedback on Essay 2. Identify the muddiest points from class discussions. Adjust readings, exam questions and essay prompt accordingly

Examples
1. The Soviet writers Alexander Genis and Peter Weyl have stated that "For the Soviet person, the Cosmos was the symbol of total liberation". Based on the story of the space scientist and his younger brother in "Ticket to the Stars" by Aksenov, and what you have learned about the Soviet Union in the 60's from Chertok's book and class lectures, do you think this statement is correct? How would you restate it to make it more accurate/ clearer?
2. How does the behavior of the main character Kirpichenko in the story "Halfway to the Moon" change between the beginning and the end of his vacation? Based on what you have learned so far about the Space Age, how does this change reflect what is going on in Soviet society at this time?
3. In chapter 2 of Aitmatov's novel *The Day Lasts More…* three of the characters, Edilbay, Edigey and Sabitjan are having a discussion about space and technology. How do their views differ? How would you explain the differences?

#6 – Discuss the philosophic/spiritual roots of the Space Age		
Assessment instrument	**Expected achievement level**	**Follow-up**

Score based on Essay 3, Final Essay	- 80 percent of students score 4 out of 5 points based on essay grading rubric - aggregate scores for the essay questions do not go down from one essay to another	Provide written feedback on Essay 3. Identify the muddiest points from class discussions. Reteach accordingly. Adjust readings, essay prompt accordingly
Examples 1. "In presenting the ultimate justification for spaceflight, advocates such as Carl Sagan and Robert Goddard argued that it would be necessary for the survival of humankind. Carl Sagan insisted that no technological civilization could expect to live long without moving onto other planets" (H. E. McCurdy). Based on your readings about the beginnings of the Soviet Space Age and the documentary about Russian Cosmists, "Knocking on Heaven's Door", a) Summarize the tenets of Cosmism; b) Describe how the position of American advocates of space flight compares to that of their Soviet/Russian counterparts. How much of the Cosmist world view do American advocates of space flight share? c) Discuss the extent of the influence of spiritual and philosophic concerns on the Soviet space program. Where do you think these concerns had the greatest impact and why? d) Are all the topics addressed in the documentary relevant to the understanding of Cosmism? Which ones do you think are irrelevant and why?		

#7 – Compare/contrast Soviet/US space programs		
Assessment instrument	**Expected achievement level**	**Follow-up**
Score based on select questions in quizzes 1-3 and midterm exam	- 90 percent of students score 80 percent or more on these questions - aggregate scores for the questions do not decrease from one test to another	Review exam questions in class. Adjust readings, lectures, exam questions accordingly
Examples 1. Briefly describe how the US/Soviet space programs have benefitted from the experience of German rocket scientists after WWII. 2. Based on Chertok's account of the Soviet moon program in *Rockets and People*, what were the main differences between the Soviet and US lunar programs? 3. According to Chertok, what did Soviet space scientists appreciate most about the US space program, and why?		

#8 – Evaluate the influence of the Soviet space program on US society		
Assessment instrument	**Expected achievement level**	**Follow-up**

Score based on select questions in midterm, final and Essay 1	- 90 percent of students score 80 percent or more on these questions, 80 percent of students score 4 out of 5 based on essay scoring rubric - aggregate scores for the test questions do not decrease from one test to another	Review exam questions in class. Adjust readings, lectures, exam questions accordingly. Revise essay 1 prompt, scoring rubric
Examples 1. In what way is the sight of Sputnik a life changing event for Homer, the main character in *October Sky*? Could you argue, based on Launius's article about the origins of the Space Age, that American youth as a whole was experiencing similar influences, or in other words, would you say that Homer's story is representative? Why or why not? 2. Give a few examples of measures that have impacted the development of science and technology in the US, that were implemented by the US government shortly after the launch of Sputnik. How effective do you think these measures have been? Do they still have effects? Refer to the Launius article for facts to support your answer. 3. How did the US space program benefit from the technological advances of the Soviet Space Age in recent years? What does it say about the state of US-Russian relations?		

#9 – Compare Soviet/US societal/cultural developments in the Space Age		
Assessment instrument	**Expected achievement level**	**Follow-up**
Score based on select questions in final exam, Essay 1 and Final Essay	- 90 percent of students score 80 percent or more on test questions -80 percent of students score 4 out of 5 based on essay scoring rubric	Review test questions in class. Adjust readings, lectures, exam questions accordingly. Revise essay prompts for clarity
Examples 1. What is the connection between Hadden's character in Contact and the Soviet Space Age (besides the obvious fact that he is a guest on MIR)? What do you think were the reasons that compelled the author to suggest this connection? 2. Describe the values that guide Eleanor in her scientific career. What is her ultimate goal? How does she compare in this regard with the cosmonauts/scientists in the Soviet films *Planet of the Storms/Andromeda Nebula*? 3. The meaning and purpose of space exploration is a central topic in Carl Sagan's *Contact*, just as in Chingiz Aitmatov's *The Day Lasts More…* Discuss the similarities and differences between the positions expressed by the two authors on this issue. To what extent do their positions agree with the official ideologies of the two states relating to space exploration? Refer to earlier readings for facts to support your position.		

b. Indirect assessment: The self-assessment questionnaire

Two SAQ's are administered, one with the midterm exam and the other on the last day of class. Questions refer more or less directly to the learning objectives of the class.

Sample questions:

1. I can identify Soviet rockets and spacecraft and know a few things about their use and technical features

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
-2	-1	0	1	2

2. I can explain how life and society changed in the Soviet Union during the Space Age

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

3. I can tell you a few interesting things about Soviet film and literature in the Space Age

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

4. I know the basic facts about Sputnik and will gladly join a discussion about the impact it had on American society

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Expected achievement level:

A class average score of at least 1 (Agree) is expected for each question. Adjustments in the course structure shall be made for class objectives receiving average scores less than 1 from the class.

Follow Up:

The self-assessment questionnaire is used primarily to adjust the amount of class time (lectures/group discussions) dedicated to the various topics, in order to ensure that class time is used in an efficient manner. In conjunction with the data obtained from the direct assessment methods, the SAQ can also be used to modify the reading schedule, emphasizing learning objectives that get lower scores from the class on the self-assessment scale.

Curriculum Map for Russian Major

	Program Goals		
	Goal 1 **Lang. Proficiency**	**Goal 2** **Analytic Skills**	**Goal 3** **Cult. Appreciation**
Prerequisites			
Russian 1101	Novice Low/Mid	NA	Novice Low
Russian 1102	Novice Mid/High	NA	Novice Mid
Russian 1103	Novice High	NA	Novice High
Required Courses			
Russian 2104	Novice High/ Intermediate Low	NA	Novice High/Intermediate Low
Russian 3101	Intermediate Low	NA	Intermediate Low
Russian 3102	Intermediate Mid	NA	Intermediate Med
Russian 4575	Intermediate High	Advanced	Advanced
Language Elective Courses			
Russian 3121/3122	Intermediate Low	NA	Intermediate High
Russian 4101/4102	Intermediate Low/Mid	NA	Advanced
Russian 4135	Novice/Intermediate	Intermediate	Novice
Russian 4136	Intermediate/Advanced	Advanced	Intermediate/Advanced
Russian 5101/5102	Intermediate High/Advanced Low	Advanced	Advanced
Literature, Culture, Linguistics Elective Courses			
Medren 2513	NA	Novice	Novice
Russian 2250	NA	Novice	Novice
Russian 2335	NA	Novice	Novice
Russian 2345	NA	Novice	Novice
Russian 3460	NA	Intermediate	Intermediate
Russian 3350	NA	Intermediate	Intermediate
Russian 3470	NA	Intermediate	Intermediate
Russian 4220/4221	NA	Advanced	Advanced
Russian 4600	Novice	Advanced	Advanced
Russian 5225	NA	Advanced	Advanced
Russian 5250	NA	Advanced	Advanced
-(including all decimal suffixes)			
Russian 5530	Intermediate	Advanced	Advanced

Russian 5601	Advanced	Advanced	Advanced
Russian 5701	Advanced	Advanced	Advanced
Slavic 2330	NA	Novice	Novice
Slavic 3360	NA	Intermediate	Intermediate
Slavic 3310	NA	Intermediate	Intermediate
Slavic 3333	NA	Intermediate	Intermediate
Slavic 4520H	NA	Advanced	Advanced
Slavic 4560H	NA	Advanced	Advanced
Slavic 4260H	NA	Advanced	Advanced
Slavic 4597	NA	Advanced	Advanced
Slavic 5450	NA	Advanced	Advanced