SPST621

Course Summary

Course : SPST621 **Title :** Current and Emerging Space Powers
Length of Course : 8
Prerequisites : N/A **Credit Hours :** 3

Description

Course Description: Space exploration and exploitation have become global activities. While the United States and the Soviet Union were battling for supremacy during the Cold War and striving for "firsts" in the Space Race, several nascent space powers were blossoming in the background. Not limited to the U.S. and USSR, the dream of spaceflight sprouted in lands as diverse as France, Germany, China, Japan, India, Israel and Brazil. The European Space Agency, the Chinese Space Program, the Japanese Space Program and the Indian Space Program have become space powerhouses. A study of these various programs is essential to gain a thorough understanding that space exploration is not only a global enterprise, but also an important concern for our own national security.

Course Scope:

Objectives

Upon completion of this course the student will be able to accomplish the following:

- CO-1: Analyze the formation and the early years of the European Space Agency
- CO-2: Examine the successes and failures of ESA satellite programs
- CO-3: Analyze the future potential of the ESA
- CO-4: Differentiate the aims and goals of the Russian space program
- CO-5: Deconstruct the Chinese space strategy
- CO-6: Distinguish the similarities and differences between selected emerging space powers
- CO-7: Analyze potential implications of both current and emerging space powers' space activities to U.S. national security
- CO-8: Attribute the future goals and plans of a selected space agency

Outline

Week 1: History of Rocketry and ESA Formation

Learning Objectives

CO-1: Analyze the formation and the early years of the European Space Agency

Readings

Readings:

The European Space Programme, Chapters 1 -6

Assignment

Forums #1 and 1A

Begin thinking about a space agency (**other than NASA**) on which you will base your satellite program and space agency papers.

Week 2: ESA's Satellite and Manned Missions

Learning Objectives

CO-2: Examine the successes and failures of ESA satellite programs

Readings

Readings:

The European Space Programme, Chapters 7-9

Assignment

Forum #2

Submit proposed space agency

Week 3: ESA's Future

Learning Objectives

CO-3: Analyze the future potential of the ESA

Readings

Readings:

The European Space Programme,

Chapters 10-12

Assignment

Forum #3

Week 4: China and Russia

Learning Objectives

CO-4: Differentiate the aims and goals of the Russian space program

CO-5: Deconstruct the Chinese space strategy

Readings

Readings: Articles on China – *China's Military Space Strategy* and *China's Space Program*; link to China's National Space Agency; and two videos on China's space program. Articles on Russia – *The Russian Federation's Approach to Military Space* and *A Russian Resurgence;* link to Russia's Space Agency; and two videos on Russia's space program

Assignment

Forum #4

Midterm Exam

Week 5: Japanese Aerospace Exploration Agency

Learning Objectives

CO-6: Distinguish the similarities and differences between selected emerging space powers

CO-7: Analyze potential implications of both current and emerging space powers' space activities to U.S. national security

CO-8: Attribute the future goals and plans of a selected space agency

Readings

Readings:

Chapters 2 and 3, Emerging Space Powers

Assignment

Forum #5

Week 6: Indian Space Research Organization

Learning Objectives

CO-6: Distinguish the similarities and differences between selected emerging space powers

CO-7: Analyze potential implications of both current and emerging space powers' space activities to U.S. national security

CO-8: Attribute the future goals and plans of a selected space agency

Readings

Readings:

Chapters 4 - 6, Emerging Space Powers

Assignment

Forum #6.

Week 7: Brazil and Iran

Learning Objectives

CO-6: Distinguish the similarities and differences between selected emerging space powers

CO-7: Analyze potential implications of both current and emerging space powers' space activities to U.S. national security

CO-8: Attribute the future goals and plans of a selected space agency

Readings

Readings:

Chapters 7 - 10, Emerging Space Powers

Assignment

Forum #7

Week 8: North and South Korea

Learning Objectives

CO-6: Distinguish the similarities and differences between selected emerging space powers

CO-7: Analyze potential implications of both current and emerging space powers' space activities to U.S. national security

CO-8: Attribute the future goals and plans of a selected space agency

Readings

Readings:

Chapters 13 - 14, Emerging Space Powers

Assignment

Forum #8

Evaluation

Your efforts in this course will be evaluated based upon the following:

** Weekly Forum postings

** NASA/ESA Paper: 8-10 page paper on a specific topic regarding either NASA or the European Space Agency

** Midterm: Covers weeks 1 - 4

** Satellite Program Paper: 10 - 12 page paper discussing one current space program within your selected agency

** Space Agency Paper: 14 - 16 page research paper fully examining your selected space agency

** Final Exam: Covers weeks 5 – 8

Grades for this course will be based upon forums, examinations and papers. You must complete all assigned tasks in order to pass the course.

<u>Forums / Participation</u>

Forums make up 20% of your overall grade. Each week, you will be required to respond to a 'Forum' with at least 250 words to comply with APUS standards. Your comprehension of assigned readings will be reflected in your ability to discuss key course concepts. In addition, you should provide a substantial response (at least 100 words) to at least two of your classmates' postings each week to receive full credit. This ensures a more interactive classroom environment.

<u>NASA/ESA Paper</u>
The NASA/ESA Paper is worth 10% of your grade. Your 8-10 page paper should focus on a particular topic relating to NASA or the ESA. For example, the Space Shuttle Program is not specific enough for this paper. But a specific shuttle mission, or a specific NASA satellite, would be. Details can be found in the Assignments Tab.

<u>Midterm and Final Exam</u>

The midterm and final exam are worth 35% of your overall grade. Questions will be short answer, fill-in-the-blank, multiple choice, or true/false and require you to have previously completed all reading assignments.

<u>Satellite Program Paper</u>

The Satellite Program Paper is worth 15% of your overall grade. Find at least three peer-reviewed articles on a current space program in your selected space agency and write a 10-12 page paper discussing this program. Details are located in the Assignments Tab.

<u>Space Agency Paper</u>

The research paper makes up 20% of your overall grade. You will submit a 14–16 page paper that discusses the past, present, and future of the particular agency you selected. It must also include your future plans for the agency, if you were in charge. Details are located in the Assignments Tab.

<u>Citation and Reference Style</u>

Students will follow the APA style as the sole citation and formatting style used in all written work submitted for this course.

If you have questions about the course grading, don't hesitate to contact me through the Sakai message system.

Grading:

Name	Grade %
Forums	20.00 %
Forum 1B - Ariane	2.42 %

Forum 2	2.42 %
Forum 3	2.42 %
Forum 4	2.42 %
Forum 5	2.42 %
Forum 6	2.42 %
Forum 7	2.42 %
Forum 8	2.42 %
Forum 1A - Introduction	0.61 %
Midterm Exam	15.00 %
SPST621 Midterm	15.00 %
Final Exam	20.00 %
621 Final	20.00 %
Satellite Program	15.00 %
Satellite Program Paper	15.00 %
Space Agency	20.00 %
Space Agency Paper	20.00 %
NASA/ESA Paper	10.00 %
NASA/ESA Paper	10.00 %

Materials

Book Title: Emerging Space Powers

Author: Harvey, Brian

Publication Info: Springer

ISBN: 9781441908735

Book Title: Additional required readings will be available inside the classroom.

Author:

Publication Info:

ISBN: AMN

Text: The European Space Program: Early Rocketry to Formation of a Successful Space Agency (Dr. Walt Conrad, editor)

Supplemental Websites:

[Chinese National Space Administration](#)

[Russian Federal Space Agency](#)

[National Aeronautics and Space Administration](#)

Course Guidelines

Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Tutoring

- Tutor.com offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 15% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

Disclaimer Statement

- Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an on-going discussion about the assigned content.

- "Substantive" means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says "I agree" is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

Identity Verification & Live Proctoring

- Faculty may require students to provide proof of identity when submitting assignments or completing assessments in this course. Verification may be in the form of a photograph and/or video of the student's face together with a valid photo ID, depending on the assignment format.
- Faculty may require live proctoring when completing assessments in this course. Proctoring may include identity verification and continuous monitoring of the student by webcam and microphone during testing.

University Policies

Student Handbook

- Drop/Withdrawal policy

- Extension Requests

- Academic Probation

- Appeals

- Disability Accommodations

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.