

SPST628

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

Course Summary

Course : SPST628 **Title :** Space Operations Structure and Design

Length of Course : 8

Prerequisites : N/A **Credit Hours :** 3

Description

Course Description: This course is a study of management issues involved in the vision, planning, design, structure and operations of new and existing facilities and vehicles. The course will include a review of existing vehicles and facilities and those that will be required in the upcoming quarter century.

Course Scope:

Objectives

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

- CO-1: Describe the space mission life cycle and the elements of a space mission
- CO-2: Describe the ten steps in designing space mission operations
- CO-3: Describe the various types of mission operations functions
- CO-4: Develop a basic space-mission operations plan
- CO-5: Describe key aspects of space navigation and maneuvering
- CO-6: Describe key aspects of space communications architectures
- CO-7: Describe the methods of determining spacecraft performance and how to analyze same
- CO-8: Describe the various types of space mission operations, including interplanetary, international, micro-satellite, and human space flight operations
- CO-9: Develop a comprehensive proposal addressing the operations, functions, planning, and architecture required for a selected satellite

Outline

Week 1:

Learning Outcomes
Required Readings

Assignments
Recommended Optional Reading
Recommended Media

Week 2:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Week 3:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Week 4:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Week 5:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Week 6:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Week 7:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Week 8:

Learning Outcomes
Required Readings
Assignments
Recommended Optional Reading
Recommended Media

Evaluation

Grading:

| Name | Grade % |
|---|---------|
| Forums | 12.00 % |
| Topic #1 | 1.50 % |
| Topic #2 | 1.50 % |
| Topic #3 | 1.50 % |
| Topic #4 | 1.50 % |
| Topic #5 | 1.50 % |
| Topic #6 | 1.50 % |
| Topic #7 | 1.50 % |
| Topic #8 | 1.50 % |
| Short Paper | 12.00 % |
| Short Paper (Due end of Week 3) | 12.00 % |
| Mission Summary | 12.00 % |
| Mission Summary (Due end of Week 7) | 12.00 % |
| Proposal Paper | 20.00 % |
| Proposal Paper (Due end of Week 6) | 20.00 % |
| Proposal Presentation | 12.00 % |
| Proposal Presentation (Due end of Week 8) | 12.00 % |
| Case Study | 12.00 % |
| Case Study Assignment (Due end of Week 4) | 12.00 % |
| Exams | 20.00 % |
| Exam #4 (Due end of Week 7) | 5.00 % |
| Exam #1 (Due end of Week 2) | 5.00 % |
| Exam #2 (Due end of Week 3) | 5.00 % |
| Exam #3 (Due end of Week 5) | 5.00 % |

Materials

Book Title: Cost-Effective Space Mission Operations, 2nd Ed (custom)- (The custom ISBN may have more competitive pricing in hard copy or electronic format. The non-custom ISBN is: 9780073313214, please use this one to search for the book from other booksellers.)

Author: Squibb

Publication Info: McGraw-Hill

ISBN: 9781121945913

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](https://www.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](#)

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