

SPACE STUDIES DEPARTMENT

ALTERNATE COMPREHENSIVE EXAMINATION OPTION

The alternate comp exam option provides students, who has failed the regular comp exam at least twice, with an alternate means to demonstrate their ability to produce a critical review and integrated analysis of a significant space-related issue that meets Departmental expectations.

Procedure:

- 1) In consultation with their advisor, the student requests the alternate option. *Generally, the student would exhaust their three permitted attempts to pass the Regular Comp Exam before applying for this option.* [See Item #8, below]
- 2) The faculty evaluates the request based on criteria such as the student's past performance and the apparent reasons for the previous failures on the regular Comp Exam. The student's advisor acts as an advocate and a source of information, but does not vote. If the faculty denies the request for cause, the student may reapply after addressing the specific issue(s) that led to the denial.
- 3) If the faculty agrees to the student's request, the student will be notified and a deadline will be established for the delivery of a written report of a specified length and adhering to a specified format. The deadline is a specific date, eight weeks after the start date requested by the student. Failure to meet this deadline will be considered to be a failure of the alternate Comp Exam option. [See #8, below]
- 4) Upon agreeing to a deadline date, the student will be provided with a set of three specific questions in appropriate topical areas. The student selects one topic.
- 5) Along with the set of three questions, the student will be provided with the explicit grading criteria that will be used to evaluate their submission.
- 6) After the student submits their document (*electronic submission as an email attachment to gaffey@space.edu in Word or PDF format*), it is distributed to the academic faculty and independently graded by all faculty members except for the advisor. Each grader will specify "Pass" or "Fail", based on whether the document satisfies the specified grading criteria.
- 7) The final outcome (Pass or Fail) will be determined by a simple majority of the grades, unless grading has identified plagiarism or some other form of academic dishonesty. In case of a tie vote, the student will be given the benefit of the doubt and passed.
- 8) **IMPORTANT!**
 - **The student is given only one chance to satisfy the comprehensive examination requirement by this alternate means.**
 - **Students should not pursue this option unless and until they have sufficient time to devote to the effort to assure a high probability of passing.**
 - **Failure of the optional Comp Exam terminates the degree program for the student.**

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ALTERNATE COMPREHENSIVE EXAM SPECIFICATIONS

Your essay must address the selected question from an interdisciplinary perspective that integrates at least three of the following disciplinary areas:

Science
Engineering
Policy
History
Business

You must choose at least one discipline from Science or Engineering and another discipline from Policy, History, or Business. The third discipline is your choice. Keep in mind that you need to explain the interrelationships among the disciplines that you select. In your document, you must clearly identify the disciplines you have selected to address the question.

Your essay must contain proper citations to the relevant sources of material.

Timeline: 8 weeks (*The clock starts when the list of three questions is provided to the student. The student may request a specific start date for the exam.*)

Document Length: ~7500 words (*not including references*)

EVALUATION CRITERIA: The submitted document will be evaluated on:

- **Professionalism** (i.e., *Would this be a suitable report for submission to your employer?*) Is it clearly written, are the conclusions well supported, and are the options / alternative interpretations adequately explored.
- **Integration** One major goal of the Space Studies Master's degree program is to develop an understanding of the interplay between the various aspects of the space endeavor: science, engineering, policy, history, business, etc. The document should specifically address how the selected disciplines interact, rather than treating each in isolation.
- **Literature** No document is complete without proper citations to the literature sources of material presented in the document. The cited literature is also evaluated on how well it represents the breadth and depth of the subject area. For example, are all seminal papers on the topic cited? Are the literature sources current? Does the literature cited represent the spectrum of opinions or ideas on the topic? Are the literature sources critically evaluated and their strength or weakness factored into the discussion?
- **Insight** The essay should not be just a compilation of data. The essay should draw upon the available data to define the inter-relationships between the selected disciplines and to critically assess the status of the topic.

EXAM COORDINATOR: Prof. Michael Gaffey gaffey@space.edu

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REQUEST TO TAKE ALTERNATE COMPREHENSIVE EXAM

The alternate comp exam option provides students, who have failed the regular comp exam at least twice, with an alternate means to demonstrate their ability to produce a critical review and integrated analysis of a significant space-related issue that meets Departmental expectations.

- **Students should not pursue this option unless and until they have sufficient time to devote to the effort to assure a high probability of passing.**
- **The student has only one chance to satisfy the comprehensive examination requirement by this alternate means.**
- **Failure of the alternative Comp Exam terminates the degree program for the student.**

Procedure

1. The student discusses this option with their advisor, making it clear that they understand the option and the possible consequences. The student should be able to demonstrate to their advisor that they are prepared to proceed with the exam and that they have the time and resources to commit to it in order to optimize the probability of a favorable outcome.
2. If the advisor agrees with the student's request, the advisor formally requests that the faculty consider the student's request. (*Advisor provides a short – 1 or 2 paragraph - statement supporting the student's case. This should address the student's past comp exam experience, state that the student will have adequate time to prepare the required document within the timeframe allowed, and confirm that the student understands that this is an "up-or-out" option. The request should also select a starting date for the exam or indicate that the student will notify the Exam Coordinator when they want to begin the exam, at which time the Coordinator will provide the student with the list of exam questions.*)
3. The faculty – except for the advisor who acts as an advocate – reviews the formal request, and either approves or disallows it. If disallowed, the student will be provided with reasons for the refusal and may choose to address these issues and resubmit their request.
4. If the faculty approves the request, the student is provided with a list of three questions and is expected to choose one. The student is also given a deadline for submission of the document. Failure to meet the deadline will constitute failure of the exam and the student's degree program will be terminated.
5. All faculty members, except for the student's advisor, will grade the document as either pass or fail. A simple majority ($\geq 50\%$) of the assessments will determine the final outcome.
6. The student will be promptly notified of the outcome by the exam supervisor (Prof. Gaffey).

EXAM COORDINATOR: Prof. Michael Gaffey gaffey@space.edu