



UNIVERSITY OF CENTRAL FLORIDA

# Planetary Sciences Graduate Programs Handbook

---

*Last updated December 1, 2017*

---

# Planetary Sciences Graduate Track Handbook

Version 2.0

December 1, 2017

## Table of Contents

<b>1.0 Introduction</b>	<b>2</b>
1.1 Scope	
1.2 Introduction to the Program	
1.3 Admission to the Planetary Sciences Track	
<b>2.0 Curriculum</b>	<b>3</b>
2.1 Ph.D. Requirements	
2.2 Masters Requirements	
2.3 Planetary Sciences Core	
2.4 Planetary Sciences Electives	
2.5 Other Potential Electives	
<b>3.0 Committees and Defenses</b>	<b>5</b>
3.1 Supervisory Committee	
3.1.1 Guidelines for Planetary Sciences Supervisory Committee Meetings	
3.2 Masters Defense	
3.2.1 Guidelines for Planetary Sciences Track Thesis Defense	
3.3 Ph.D. Candidacy Exam:	
3.3.1 Guidelines for Planetary Sciences Candidacy Examination	
3.4 Dissertation Proposal:	
3.4.1 Guidelines for Planetary Sciences Dissertation Proposals	
3.5 Dissertation Defense	
3.5.1 Guidelines for Planetary Sciences Track Dissertation Defense	
<b>4.0 Participating Faculty</b>	<b>12</b>

## 1.0 Introduction:

**1.1 Scope:** This handbook is designed to provide the supplemental information and guidelines to the Department of Physics Doctoral and Masters handbooks and contain information that are unique to the Planetary Sciences Track.

**1.2 Introduction to the Program:** Our goal is to foster a vibrant Planetary Sciences research environment that can attract top students, researchers, and faculty and contribute significantly to the exploration of space. The Planetary Sciences Graduate Ph.D. and Masters Tracks are designed to prepare students to be competitive in the global planetary sciences research community.

**1.3 Admission to the Planetary Sciences Track:** Students must be specifically admitted to the Graduate Planetary Sciences track, either for Masters or Ph.D. External applications and petitions to switch from the existing Physics graduate program are considered by the Planetary Graduate Committee. Admission to the track requires a Bachelor of Science or equivalent, typically in physics, astronomy, geology, geophysics, geochemistry, atmospheric sciences, or planetary sciences. Those without full academic preparation in relevant natural sciences may be required to complete specified coursework in addition to the core program, as determined by the Planetary Graduate Committee at the time of admission or their Supervisory Committee at a later date. Petitions to switch from the existing Physics graduate program shall be in the form of a letter to the Planetary Sciences Graduate Committee addressed to Dr. Dan Britt (i.e. the track's Graduate Coordinator). The letter should include the request to join the planetary sciences track, the student's degree goal (Masters or Ph.D.), the name of the student's planetary sciences advisor, and a brief description of their expected area of research.

For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the [Admissions and Registration](#) section of the Graduate Catalog and the Physics Masters/Doctoral Handbook. Applicants must [apply online](#). All requested materials must be submitted by the established deadline(s). In addition to the [general UCF graduate admission requirements](#), applicants to this program must provide:

- One official transcript (in a sealed envelope) from each college/university attended.
- Official, competitive GRE score taken within the last five years.
- Three letters of recommendation.
- Statement of goals.
- Students entering the Planetary Sciences graduate track with regular status are normally expected to have completed course work generally required for a bachelor's degree in a closely related science field such as physics, chemistry, geology, biology, or mathematics.
- CV or Résumé.

Meeting minimum UCF admission criteria does not guarantee program admission. Final admission is based on evaluation of the applicant's abilities, past performance, recommendations, match of this program and faculty expertise to the applicant's career/academic goals, and the applicant's potential for completing the degree.

## *Application Deadlines*

<b>Planetary Sciences PhD</b>	<b>Fall Priority</b>	<b>Fall</b>	<b>Spring</b>
<b>Domestic Applicants</b>	Jan 15	Jun 15	Nov 1
<b>International Applicants</b>	Jan 15	Jan 15	Jul 1
<b>International Transfer Applicants</b>	Jan 15	Mar 1	Sep 1

Graduate students may receive financial assistance through fellowships, assistantships, tuition support, or loans. For more information, see [Financing Grad School](#), which describes the types of financial assistance available at UCF and provides general guidance in planning your graduate finances. The [Financial Information](#) section of the Graduate Catalog is another key resource.

For information on the Planetary Sciences track contact the Planetary Sciences Graduate Advisor Dr. Dan Britt at 407-823-2600 or [dbritt@ucf.edu](mailto:dbritt@ucf.edu)

## **2.0 Curriculum**

**2.1 Ph.D. Requirements:** A minimum of 72 credit hours beyond the bachelor's degree or 42 hours beyond the master's degree. This includes completion of 6 core courses (18 hours) listed below, 5 electives (15 hours) of regular coursework selected in consultation with the students Supervisory Committee, a minimum of 15 hours of dissertation (AST and PHY 7980), and the remaining 24 hours of appropriately selected research, dissertation, and elective courses. Courses must be selected so that at least one-half of the 72 hours are at 6000 level or higher. No more than 12 hours of independent study (AST and PHY 6908) may be credited toward the Ph.D. degree. The Ph.D. includes a Candidacy Exam to be taken after the completion of the core courses, a written dissertation, and a dissertation defense before the student's supervisory committee.

**2.2 Masters Requirements:** Master's requirements include at least 33 hours of graduate course work as directed by the student's supervisory committee. This must include at least 15 hours of courses from the planetary core listed below and 6 hours of Thesis Preparation (PHY and AST 6971) with the remainder being electives and directed research classes chosen in consultation with the supervisory committee. At least half of the total credits must be at the 6000 level. No more than 6 hours of independent study (AST and PHY 6908) may be credited toward the M.S. degree. The Master's Degree in planetary sciences includes a thesis and its defense. There is no non-thesis Master's degree in the planetary sciences track.

**2.3 Planetary Sciences Core:** The core is designed to give students a broad foundation in the planetary sciences and a rapid training in the data analysis techniques that will be necessary for a successful research and publications.

- **Statistical Physics (PHY 5524):** A study of physical concepts and methods appropriate for the description of systems involving many particles. Ensemble theory, partition functions. Maxwell Boltzmann, Bose-Einstein, Fermi-Dirac statistics.
- **Classical Mechanics (PHY 6246):** Variational principles. Lagrange, Hamiltonian, and Poisson bracket formulations of mechanics. Hamilton's principle of least action. Hamilton-Jacobi theory. Perturbation theory. Continuous systems. Chaos.

- Either: Advanced Astronomical Data Analysis (AST 5765): Techniques for processing astronomical data including programming approaches for data analysis, probability, statistics, error propagation, astronomical detectors and their calibration, model fitting; or Computational Physics (PHZ 5156): Computational methods applied to the solution of problems in many branches of physics..
- Advanced Planetary Geophysics (AST 5154): The physics of planetary evolution, planetary interiors, and planetary surface processes.
- Advanced Observational Astronomy (AST 5263): Design of scientific observing programs, acquiring astronomical data sets, applied astronomical data reduction, analysis of sources of observational error, publication of results.
- Planetary Atmospheres (AST 5165): The physics and chemistry that govern the behavior of the atmospheres of Earth and other planets including atmospheric dynamics, vertical chemistry, radiative transfer, gas spectroscopy, and cloud microphysics.

#### **2.4 Planetary Sciences Electives:**

- Planetary Astronomy Seminar (AST 6938): Advanced topical course focused on major new developments in planetary astronomy including recent results from NASA/ESA missions. This course would be taught annually with a new topic each year. This course may be repeated for credit.
- Origins of Solar Systems (AST 6112): Formation of planetary systems beginning with the proto-stellar clouds, collapse, condensation, particle-disk interactions, accretion models, formation of satellites, what has been learned from observations of extra-solar planets, and the physics of magnetic fields generated by planetary bodies.
- Extra-Solar Planets and Brown Dwarfs (AST 5334): An advanced course on the physics of substellar-mass objects, their formation, evolution, dynamics, detection, and environments. This includes the gravitational collapse of molecular clouds, the dynamics of planetary evolution in extrasolar systems, the evolution of Brown Dwarfs, and the habitability of extrasolar worlds.
- Astrobiology (AST 5937): Interdisciplinary branch of science that deals with the origins, development, and fate of life on Earth and in extraterrestrial environments.
- Asteroids, Comets, and Meteorites (AST 5145): An advanced study of physical, chemical, mineralogical and orbital characteristics of Asteroids, Comets and Meteorites, with an emphasis on the origin of our solar system.

**2.5 Other Potential Electives:** A range of graduate physics, chemistry, optical sciences, and mathematics courses useful for the student's area of research can be taken as electives. Electives should be chosen with the advice and consent of the student's advisor and supervisory committee.

**2.6 Other Planetary Science Academic Activities:** Integral to becoming a professional Planetary Scientist are a range of related academic activities outside the classroom that are essential to developing the broad background, critical thinking, and public speaking skills required for success in this field. These include Journal Club, the CLASS/FSI seminar, and the

Physics Department Colloquium. Attendance and active participation at these events is either mandatory or strongly encouraged for students.

- **Journal Club:** A weekly forum provides students with the opportunity to hone their skills while helping everyone keep current with the latest research. Typically, students pick an interesting recent scientific paper and present the research outlined. Students are expected to lead at least one journal club per semester. Journal clubs are also often used by faculty and visiting scientists to present current research results. Lively discussion and critical questions are journal club tradition. Attendance is mandatory.
- **CLASS/FSI Seminar:** An international forum that brings some of the leading researchers in planetary science to UCF. The seminar is usually broadcast on AdobeConnect and speakers are often in remote locations, so students can participate remotely as well. Participation is strongly encouraged.
- **Department Colloquium:** The Physics Department sponsors weekly colloquia, some of which are focused on planetary science topics. Attendance is strongly encouraged for planetary science colloquia.
- **Outreach:** Part of planetary science is active outreach to the general community to communicate the excitement of planetary exploration to the taxpayers who make it possible. The group sponsors telescope viewings for the general public and strongly encourages students to get involved in outreach opportunities such as judging science fairs, talks to student and community groups, or helping scouts earn astronomy merit badges.

### 3.0 Committees and Defenses

**3.1 Supervisory Committee:** Within the first half-semester of admission to the planetary sciences graduate track, each student must select, by mutual agreement, a faculty advisor and at least three other faculty members to serve on the Supervisory Committee. A quorum for supervisory committee meetings will be three faculty members. UCF faculty. UCF self-funded research scientists, and non-UCF planetary scientists qualified to be Graduate Faculty Scholars are eligible to serve on supervisory committees. The committee should include one non-UCF planetary scientist. Changes in the membership of a Supervisory Committee must be approved by the Planetary Graduate Committee. The advisor is expected to meet regularly with the student. The full committee shall meet with the student at least once per year to review and make recommendations regarding the student's academic progress.

#### 3.1.1 Guidelines for Planetary Sciences Supervisory Committee Meetings

1. Students will identify a research advisor and form a supervisory committee by the middle of their first semester in the Planetary Sciences program. The composition of the supervisory committee must be reported to the Physics Department Graduate Program Assistant and the Graduate College Thesis Advisory Committee form must be submitted.
2. Students are responsible for initiating the formation of committees and calling committee meetings at mutually agreeable times for the members. The date and results of the meeting must be reported to the Planetary Graduate Program Director.
3. Pre-candidacy committees should be composed of at least four faculty members. UCF faculty and. UCF self-funded research scientists, and non-UCF planetary scientists qualified

to be Graduate Faculty Scholars are eligible to serve on supervisory committees. Changes in the membership of a Supervisory Committee must be approved by the Planetary Graduate Committee.

4. Supervisory committees should meet at least every year to review the progress of students.
5. Students should present the following information to the committee during annual meetings: Program of study form. Listing of Publications. Listing of presentations and scientific meetings attended. Schedule of courses to be taken.
6. Students should present an overview of their research program and a work plan for achieving their research goals. This plan should include a schedule of the work and a list of planned publications.
7. Students should briefly present the results and progress of their research since their last committee meeting. The committee members are expected to give advice and direction for the student's research.
8. The presentation is the student's responsibility. Students should be SURE that the presentation actually runs on the computer/projection system in the meeting room.
9. Students in post-candidacy status should present a dissertation plan that includes the chapters of their proposed dissertation.
10. Students in post-candidacy status should outline their plans for 1-2 years beyond the PhD for both the work, if any portion of it is to carry beyond the PhD defense, and for employment. The committee members are expected to give career advice. Following this advice is at the discretion of the student and will not affect the decisions of the committee.
11. The student should review the timeline presented at the previous meeting and show how planned work has translated into progress.

**3.2 Masters Defense:** The Planetary Sciences Track Masters requirement includes a written thesis and its oral defense after the completion of the Masters course work and research. The thesis is a journal-level research paper. The oral defense is in two parts: (1) A public presentation of the research contained in the paper; and (2) private questioning on the detail of the presented research as well as the topics covered in the student's preparation and course work. The written and oral components will be administrated by the student's Supervisory Committee. A student must submit the written Thesis to the Supervisory Committee 14 calendar days before the scheduled oral defense. Committee members are expected to read it and give a preliminary indication as to its acceptability four days after receipt. The preliminary indication of acceptability for a written examination paper is noncommittal. Rather, it is intended to avoid obvious failures. By the start of the eighth day before the examination, the official version of the thesis is due, and the Committee must decide whether to allow the oral defense to proceed. If the defense does not proceed, either due to decision of the Supervisory Committee or that of the student, the student is deemed not to have defended. The following outcomes are possible for the defense:

*Pass*

*Pass conditioned on revisions (both) or additional coursework*

*Retake*

*Retake after additional coursework*

*Fail*

Passes conditioned on revisions are handled as follows: all committee members sign the appropriate paperwork except the advisor. The advisor signs the paperwork when satisfied with

the revisions. Students may only retake a defense once, and must do so within one year, or immediately after the next offering of a required course, whichever occurs later. If the student fails examination a second time or fails to retake the examination within the specified period, the student is dropped from the program.

### **3.2.1 Guidelines for Planetary Sciences Track M.S. Thesis Defense**

1. The Thesis Defense is the final requirement for the M.S. and consists of a public presentation of the Thesis, typically lasting 45-60 minutes including the traditional question and answer period of a scientific presentation, followed by private questioning by the Supervisory Committee. Revisions to the thesis may be required as part of the defense.
2. There are specific university deadlines related to the final semester and the thesis defense listed in the Graduate College's Thesis/Dissertation website: <http://www.students.graduate.ucf.edu/> under Current Students and Thesis & Dissertation (ETD). The critical deadlines are the format deadline, the defense deadline, and the final completion date. It is the student's responsibility to meet all of the Graduate College's requirements and deadlines.
3. It is the responsibility of the chair of the supervisory committee to have the Thesis reviewed through Turnitin.com in conformance to Graduate College requirements.
4. The defense version of the thesis must be presented to the Supervisory Committee 14 calendar days before the scheduled defense. It must comply with all UCF graduate studies style requirements. Any subsequent revision, no matter when presented, must be accompanied by a list of all changes (including trivial corrections of spelling, etc.) made since the prior official submission to the Supervisory Committee. A separate electronic "redline" version of the thesis is acceptable for this purpose (deletions are indicated by red or strike-through text; green or boxed text indicates insertions; and marginal change bars indicate lines containing changes, to help find small alterations that might otherwise be missed). Committees will generally not accept revisions between the defense submission and the defense itself, but may choose to do so in exceptional circumstances.
5. Committee members are expected to read the thesis and give a preliminary indication of whether to proceed with the defense within four days. The preliminary indication to proceed is noncommittal. Rather, it is intended to avoid obvious failures.
6. The student is responsible for all scheduling and logistical arrangements for the defense. The student must reserve a room for the defense for no less than 3 hours. Notices of the public portion of the defense detailing the time, place, and title must be posted through the department 2 weeks, 1 week, and 1 day in advance, in a manner similar to that for a departmental colloquium
7. The presentation is the student's responsibility. The student should:
  - Be SURE that the presentation actually runs on the computer/projection system in the meeting room.
  - Be SURE that the plots and presentation materials are easily visible and of publication quality.



- Be SURE that the spelling, punctuation, and grammar are of publication quality.
  - Be SURE to have a working laser pointer, working markers, and necessary presentation materials.
  - Be SURE to have the necessary UCF and Graduate School paperwork for committee signature.
8. The student is responsible for bringing to the defense the “Thesis and Dissertation Approval form” for the Committee’s signature.
  9. Students should present the following information to the Committee at the defense: Degree audit showing that all requirements up to the defense have been satisfied, listing of publications, listing of presentations, and scientific meetings attended.
  10. Written results including comments on the thesis from the Committee are due within three days of the defense. The following outcomes are possible:
    - The Committee may approve the thesis, approve it subject to revisions to be approved by the advisor, or require a redefense.
    - A redefense must occur within one year. At the second defense, if it is not successful, the student may be given a failure and removal from the program without a conferred degree.

**3.3 Ph.D. Candidacy Exam:** The Planetary Sciences Track requires a Candidacy Exam to be taken after the completion of the core courses. Ideally this exam will be taken at the end of second year in the Planetary Graduate program and no later than the end of the third year. This exam is composed of a written component and an oral exam. The written component is a journal-level research paper that has either been accepted for publication or submitted for publication. The oral component is in two parts: (1) A public presentation of the research contained in the paper including the traditional question and answer period of a scientific presentation; and (2) private questioning on the detail of the presented research as well as the topics covered in the student’s preparation and course work. The written and oral components will be administrated by the student’s Supervisory Committee. A student must give the written examination paper to the Supervisory Committee 14 calendar days before the scheduled oral examination. Committee members are expected to read it and give a preliminary indication as to its acceptability four days thereafter. The preliminary indication of acceptability for a written examination paper is noncommittal. Rather, it is intended to avoid obvious failures. By the start of the eighth day before the examination, the official version of the paper is due, and the Committee must decide whether to allow the oral examination to proceed. If the examination does not proceed, either due to decision of the Supervisory Committee or that of the student, the student is deemed not to have taken either part of the examination. Both the written and oral Candidacy examinations are deemed to take place at the time of the oral examination. Written results including comments on the paper are due within three days of the examination. The following outcomes are possible for either examination:

*Pass*

*Pass conditioned on revisions (both) or additional coursework*

*Retake*

*Retake after additional coursework*  
*Fail with option for Master's Degree*  
*Fail without option for Master's Degree*

Passes conditioned on revisions are handled as follows: all committee members sign the appropriate paperwork except the advisor. The advisor signs the paperwork when satisfied with the revisions. Students may only retake an examination once, and must do so within one year, or immediately after the next offering of a required course, whichever occurs later. If the student fails examination a second time or fails to retake the examination within the specified period, the student is dropped from the program.

### **3.3.1 Guidelines for Planetary Sciences Ph.D. Candidacy Examination**

1. The Candidacy Exam to be taken after the completion of the core courses, typically at the end of second year in the Planetary Graduate program and no later than the end of the third year. The student must have given a minimum of two Planetary Sciences Journal Club presentations, Department Colloquia, or international scientific meeting talks prior to Candidacy.
2. It is the student's responsibility to reserve the room and schedule the examination. A minimum of 3 hours is required for the examination.
3. This exam consists of both written and oral components administrated by the student's Supervisory Committee. The written component is a journal-level research paper that has either been published or submitted. Exceptions to this rule can be made at the direction of the Planetary Graduate Committee. The oral component is a two parts: (1) A public presentation of the research contained in the paper typically lasting 45 minutes and a 15 minute question and answer period; and (2) private questioning on the detail of the presented research as well as any of the topics covered in the student's course work.
4. The presentation is the student's responsibility. The student should:
  - Be SURE that the presentation actually runs on the computer/projection system in the meeting room.
  - Be SURE that the plots and presentation materials are easily visible and of publication quality.
  - Be SURE that the spelling, punctuation, and grammar are of publication quality.
  - Be SURE to have a working laser pointer, working markers, and necessary presentation materials.
  - Be SURE to have the necessary UCF and Graduate School paperwork for committee signature.
  - If you have a "remote" committee member, be SURE to reserve one of the remote access AdobeConnect rooms (PSB 445 or the FSI conference room). Working with the AdobeConnect system is not trivial and you need to practice talking, watching/listening, from the setup. There are always setup and connection issues that need to be resolved, so plan on starting the connection process at least 30 minutes prior to the start of the exam.

5. The student must give the written examination paper to the Supervisory Committee 14 calendar days before the scheduled oral examination. Committee members are expected to read it and give a preliminary indication as to its acceptability four days thereafter. By the start of the eighth day before the examination, the official version of the paper is due, and the Committee must decide whether to allow the oral examination to proceed. Revisions to the written portion may be required as part of the defense.
6. The supervisory committee will question the student on any of the topics covered in the student's course work. This questioning should be at least 15 minutes from each member of the committee.

**3.4 Dissertation Proposal:** The Dissertation Proposal may be presented simultaneously with the Candidacy Exam or in a separate meeting not more than one semester thereafter. The Dissertation proposal is not formally an examination in the Planetary Sciences Track and the supervisory committee may direct any form of presentation it desires and may question the student. Before substantial work is done on the dissertation, the Supervisory Committee must approve the proposal and must also assess whether additional coursework is necessary to begin the dissertation. Such coursework should be completed at the earliest opportunity. The supervisory committee then becomes the dissertation committee.

#### **3.4.1 Guidelines for Planetary Sciences Ph.D. Dissertation Proposals**

1. The Dissertation Proposal is required. The Dissertation Proposal may be presented simultaneously with the Candidacy Examination or in a separate Supervisory Committee meeting not more than one semester thereafter. This meeting must include the new external member. If a proposal is not approved within one year of passing the Candidacy Examination, the Supervisory Committee may terminate the student's status in the degree program.
2. Before substantial work is done on the dissertation, the Supervisory Committee must approve the Dissertation Proposal and must also assess whether additional coursework is necessary to begin the dissertation. Such coursework should be completed at the earliest opportunity.
3. The Dissertation Proposal shall contain the following
  - A title.
  - The student's name and degree program.
  - An abstract.
  - A listing of the Supervisory Committee identifying the advisor, chair (generally the same person as the advisor, unless the advisor is external to UCF), and external member (by affiliation).
  - The scientific background of the proposed work. This should include work already done by the student prior to candidacy.
  - A listing of science questions to be addressed.
  - A statement of scientific objectives.

- A dissertation outline that includes a list of chapters along with a brief summary of the chapter contents and the status of the work that will be included in that chapter (i.e. complete, in progress, TBD).
- A work plan that includes methods, data requirements, schedule, and proposed defense date.
- List of the candidate's relevant publications and scientific presentations.
- Cited references.
- The proposal should be approximately 15 pages.

**3.5 Ph.D. Dissertation Defense:** The Dissertation Defense is the final requirement for the PhD. It consists of a public presentation of the dissertation typically lasting 45-60 minutes including the traditional question and answer period of a scientific presentation, followed by private questioning by the Supervisory Committee. Procedures are similar to the Candidacy exam. A student must give the dissertation to his or her Supervisory Committee 14 calendar days before the scheduled defense. Committee members are expected to read it and give a preliminary indication as to its acceptability 10 calendar days before the scheduled defense. The preliminary indication of acceptability for a written examination paper is noncommittal. Rather, it is intended to avoid obvious failures. The student must then post notices of the presentation in a manner similar to that for a department colloquium. Written results including comments on the dissertation are due within three days of the defense. The following outcomes are possible:

*Approval of the dissertation*

*Approval subject to revisions to be approved by the advisor*

*Required redefense*

A redefense must occur within one year. At the second defense the redefense option is replaced by options for a Master's Degree or failure and removal from the program without a conferred degree.

### **3.5.1 Guidelines for Planetary Sciences Track Ph.D. Dissertation Defense**

1. The Dissertation Defense is the final requirement for the PhD and consists of a public presentation of the dissertation, typically lasting 45-60 minutes including the traditional question and answer period of a scientific presentation, followed by private questioning by the Supervisory Committee. Revisions to the dissertation may be required as part of the defense.
2. There are specific university deadlines related to the final semester and the dissertation defense listed in the Graduate College's Thesis/Dissertation website: <http://www.students.graduate.ucf.edu/> under Current Students and Thesis & Dissertation (ETD). The critical deadlines are the format deadline, the defense deadline, and the final completion date. It is the student's responsibility to meet all of the Graduate College's requirements and deadlines.
3. It is the responsibility of the chair of the supervisory committee to have the Dissertation reviewed through Turnitin.com in conformance to Graduate College requirements.
4. The defense version of the dissertation must be presented to the Supervisory Committee 14 calendar days before the scheduled defense. It must comply with all UCF graduate

studies style requirements. Any subsequent revision, no matter when presented, must be accompanied by a list of all changes (including trivial corrections of spelling, etc.) made since the prior official submission to the Supervisory Committee. A separate electronic “redline” version of the dissertation is acceptable for this purpose (deletions are indicated by red or strike-through text; green or boxed text indicates insertions; and marginal change bars indicate lines containing changes, to help find small alterations that might otherwise be missed). Committees will generally not accept revisions between the defense submission and the defense itself, but may choose to do so in exceptional circumstances.

5. Committee members are expected to read the dissertation and give a preliminary indication of whether to proceed with the defense within four days. The preliminary indication to proceed is noncommittal. Rather, it is intended to avoid obvious failures.
6. The student is responsible for all scheduling and logistical arrangements for the defense. The student must reserve a room for the defense for no less than 3 hours. Notices of the public portion of the defense detailing the time, place, and title must be posted through the department 2 weeks, 1 week, and 1 day in advance, in a manner similar to that for a departmental colloquium.
7. The presentation is the student’s responsibility. The student should:
  - Be SURE that the presentation actually runs on the computer/projection system in the meeting room.
  - Be SURE that the plots and presentation materials are easily visible and of publication quality.
  - Be SURE that the spelling, punctuation, and grammar are of publication quality.
  - Be SURE to have a working laser pointer, working markers, and necessary presentation materials.
  - Be SURE to have the necessary UCF and Graduate School paperwork for committee signature.
  - If you have a “remote” committee member, be SURE to reserve one of the remote access AdobeConnect rooms (PSB 445 or the FSI conference room). Working with the AdobeConnect system is not trivial and you need to practice talking, watching/listening, from the setup. There are always setup and connection issues that need to be resolved, so plan on starting the connection process at least 30 minutes prior to the start of the exam.
8. The student is responsible for bringing to the defense the “Thesis and Dissertation Approval form” for the Committee’s signature.
9. Students should present the following information to the Committee at the defense: Degree audit showing that all requirements up to the defense have been satisfied, listing of publications, listing of presentations, and scientific meetings attended.
10. Written results including comments on the dissertation from the Committee are due within three days of the defense. The following outcomes are possible:

- The Committee may approve the dissertation, approve it subject to revisions to be approved by the advisor, or require a redefense.
- A redefense must occur within one year. At the second defense, if it is not successful, the committee will decide if the student may be given the option for a Master's degree (following PhD Dissertation Defenses only) or failure and removal from the program without a conferred degree.

#### **4.0 Participating Faculty:**

Professor Daniel Britt

Professor Humberto Campins

Professor Joseph Harrington

Professor Joshua Colwell

Associate Professor Yan Fernandez

Associate Professor Joseph Donoghue

Assistant Professor Adrienne Dove

Assistant Professor Chris Bennett

Lecturer James Cooney

Lecturer Michele Montgomery

Associate Scientist Dr. Julie Brisset (FSI)

Associate Scientist Dr. Noemi Pinilla-Alonso (FSI)

Chief Scientist Space Medicine and Life Sciences Dr. Esther Beltran (FSI)

Associate Scientist Dr. Philip Metzger (FSI)

Associate Scientist Dr. Gal Sarid (FSI)