

GRADUATE HANDBOOK 2013-2014

August 2013

Master of Arts (MA)
Master of Science (MS)
Doctor of Philosophy (PhD)

School of Sustainability Arizona State University

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Purpose of the Handbook

This handbook is a very important guide for graduate students admitted to the School of Sustainability (SOS), and for individuals who wish to apply to one of the sustainability graduate degree programs. Each current and prospective student should consult the handbook for information about the MA, MS and PhD in sustainability.

The handbook is provided as an initial resource for answers to questions about the program, but students are also encouraged to consult with the graduate coordinator, their faculty advisor or any member of the Graduate Committee. The primary reference for graduate students on rules and regulations is the Arizona State University <u>Academic Catalog</u>. Each student should become familiar with the Academic Catalog and the <u>Office of Graduate Education</u> website and policies.

Once admitted to the School of Sustainability, students have access to the SOS Graduate Student Community Blackboard site, where they will be able to find many of the materials in this handbook. Admitted students can access the site through MyASU.

Student Responsibility

It is the responsibility of each student to understand and observe all procedures and requirements specified by the Office of Graduate Education and the School of Sustainability. It is a <u>requirement</u> for all SOS students to read and understand the SOS Graduate Handbook and the ASU Academic Catalog. Faculty and staff provide academic advice and assistance; however, the ultimate responsibility for meeting degree and other requirements remains with the student. All ASU students are also required to have an active ASU email account and to check it frequently. Students may forward their ASU email to another preferred account. <u>Instructions on how to do this are found online</u>.

Academic Integrity

Graduate students are expected to be ethical in their multiple roles as students, researchers, teachers or supervisors of undergraduate students and representatives of the School, Institute and University. When in doubt about appropriate conduct, students should consult a faculty mentor to seek clarification. Breaches of academic integrity include, but are not limited to, the following:

- Engaging in any form of academic deceit, e.g., referring to materials, sources or devices (camera phones, text messages, crib sheets, solution manuals, materials from previous classes or commercial research services) not authorized by the instructor for use during an evaluation or assignment;
- Providing inappropriate aid to another student in connection with any evaluation or assignment;
- Engaging in plagiarism by using the ideas, words or data of another person or persons without full and appropriate attribution;
- Engaging in plagiarism by claiming credit for the ideas, words or data of another person or persons, or submitting work done by another as one's own;

- Failing to follow ethical procedures for research involving human subjects, such as violating participants' confidentiality, or failing to maintain confidential or sensitive research data in a secure location;
- Knowingly using data that do not meet appropriate standards for reliability and validity;
- Failing to meet responsibilities to undergraduate students, such as failing to provide assistance during designated office hours;
- Engaging in a romantic relationship with an undergraduate student whom the student supervises or evaluates in a classroom or research setting;
- Falsifying or misrepresenting hours or activities in relationship to an internship, externship, research assistantship, field experience, workshop or service learning experience;
- Repeatedly failing to meet commitments and responsibilities, such as chronically missing deadlines, or failing to provide work promised to colleagues; and
- Behaving in a way that reflects poorly on the School, Institute and University
 while conducting research or participating in community activities as a
 representative of the School.

The School of Sustainability has a zero-tolerance policy for any form of academic malfeasance. Penalties for unethical behavior range from being placed on academic probation to dismissal from the program. Additional information about academic integrity policies of the University is available on the <u>Student Rights and Responsibilities website</u>.

Sexual Harassment

The University prohibits sexual harassment by employees and students and will not tolerate sexual harassment that interferes with an individual's work or educational performance or creates an intimidating, hostile or offensive working, learning or residential environment. Additional information about sexual harassment can be found online.

Campus Safety

To report an emergency on campus, students can simply dial 911 or use one of the emergency call boxes found on campus. Non-emergency ASU Police or campus-safety matters should be directed to 480-965-3456. ASU has an opt-in, text-message alert system by which students can choose to receive a text message from ASU in times of an emergency. Students can sign up for the service online. For additional safety resources and contacts, such as Counseling Services, Police and Safety Escort Services, visit the Safety Resources website.

What is the School of Sustainability?

The School of Sustainability was established to educate a new generation of leaders, through collaborative learning, transdisciplinary approaches and solutions-oriented training, to address some of the most pressing environmental, economic and social challenges of this century.

SOS builds on the extensive urban-environmental research portfolio of the <u>Global Institute of Sustainability</u> (GIOS) and the vision of the <u>New American University</u>, to provide innovative education and research opportunities that will prepare students to find solutions to sustainability challenges relating to:

- Business Practices and Economics
- Climate Change and Adaptation
- Ecosystem Alteration and Biodiversity
- Energy, Materials and Technology
- Food Systems
- Future Scenarios and Systems Thinking
- International Development
- Policy and Governance
- Social and Behavioral Change, Ethics
- Urbanization
- Water Quality, Use and Supply

These challenge areas are part of the focus of the School's graduate curriculum.

The goals of SOS and GIOS include:

- Identifying the grand challenges of sustainability.
- Advancing knowledge for applied practical solutions.
- Creating new tools for improved decision-making.
- Prioritizing university-wide efforts toward sustainable practices.
- Building global research partnerships.

Graduate Degrees Offered

SOS offers the Master of Arts (MA), Master of Science (MS) and Doctor of Philosophy (PhD) degrees in sustainability. SOS also offers a Master in Sustainable Solutions (MSUS) non-thesis degree. Requirements for the MA, MS and PhD degree programs are described in the sections below.

The SOS graduate program is designed to increase students' understanding of systems dynamics, cascading effects, and scale, and to develop their ability to work on transdisciplinary teams to address sustainability challenges. After completing the program successfully, students will be able to:

- Understand the nature of coupled social and ecological systems;
- Evaluate the cascading effects and tradeoffs of policies, decisions and actions related to sustainability;
- Consider scale in the design and implementation of research questions, programs and policies;
- Demonstrate epistemological agility and literacy in multiple "conceptual languages;"
- Integrate methods from multiple disciplines to design interdisciplinary research, creative activities and applied projects;
- Lead and participate effectively in teams comprised of members from many disciplines;
- Communicate effectively with colleagues, policy makers and the general public in both formal and informal settings; and
- Employ responsible and ethical research and applied practices that consider both intergenerational and intragenerational equity in their design and implementation.

Who Should Apply?

SOS encourages applications from individuals with educational backgrounds and experience relevant to the School's goals and challenge areas. Before applying, the prospective student should discuss with the graduate coordinator or a faculty member whether or not SOS offers a graduate degree that will meet the student's needs. The MA, MS and PhD programs are offered during the day, and although there are a few online and evening courses, the programs cannot be completed online or in the evening.

Please see the SOS website for answers to <u>frequently asked questions</u> about the application process or applicants can contact our student services center at 480-727-6963 or <u>schoolofsustainability@asu.edu</u>.

Application Deadlines

The School of Sustainability admits applicants to the MA, MS and PhD programs for the fall semester only. For admission to the fall 2014 semester, complete applications including GRE scores and recommendations must be received by **Dec. 15, 2013**. Late applications will not be accepted. Students must apply directly through the ASU Office of Graduate Education.

Application Process and Admission Requirements

The School of Sustainability's <u>graduate application process webpage</u> lists current application requirements and deadlines for applying to the PhD, MA or MS in sustainability.

<u>Note</u>: Taking courses for graduate credit as an undergraduate or non-degree student does not ensure admission to the program or acceptance of the acquired graduate credits as part of the plan of study.

Competencies

Transcripts will be used to evaluate basic competencies for graduate study in sustainability. Students with inadequate preparation may be required to remediate deficiencies as part of their program requirements.

International Students

SOS welcomes applications from international students. International students must meet ASU's general requirements for admission into graduate programs. The ASU Office of Graduate Education has additional requirements for international students and more information can be found on ASU's Global Education website.

Review Process

The SOS Graduate Committee will review an application when the School of Sustainability has received all application materials from the Office of Graduate Education and after the Dec. 15 deadline. Applicants can check the status of their application through MyASU.

Master's Degrees (MA and MS)

Difference between MA and MS

Although both master's degree programs emphasize cross-disciplinary knowledge and skills, the MA degree is most appropriate for students inclined towards social sciences, planning and related fields; the MS degree for those inclined towards natural sciences, economics or engineering. The core courses are identical; a student's past experience, intended focus of study and elective preferences help determine whether the MA or MS is more appropriate.

Continuous Enrollment

Once admitted to a graduate degree program, master's students must be registered for a minimum of one credit hour (not audit) during all phases of their graduate education. This includes periods when they are engaged in research; working on or defending their thesis or applied project; or in any other way using university facilities or faculty time including the term in which they graduate.

Registration for every fall and spring semester is required. Summer registration is required for students who are completing culminating experiences, defending theses or graduating from the degree program.

To maintain continuous enrollment, credit hours must:

- Appear on the student's plan of study, or
- Be Research (SOS 592), Thesis (SOS 599) or Continuing Registration (SOS 595) or
- Be a graduate-level course.

Grades of "W" (withdrawal) or "X" (audit) are not considered valid registration for continuous enrollment purposes. "W" grades are received when students officially withdraw from a course after the course drop deadline. "X" grades are received for audit courses. Additionally, students completing work for a course in which they received a grade of "I" (incomplete) must maintain continuous enrollment as defined previously. Graduate students have one year to complete work for an incomplete grade; if the work is not complete and the grade changed within one year, the "I" grade becomes permanent.

Students planning to discontinue enrollment for a semester or more must request approval for a leave of absence. Students may <u>petition the Office of Graduate Education</u> for a leave of absence for a maximum of two semesters during their entire program. A petition for a leave of absence, endorsed by the members of the student's supervisory committee and the graduate director, must be approved by the Office of Graduate Education. This request must be filed and approved before the anticipated absence.

A student on leave is not required to pay fees, but in turn is not permitted to place any demands on university faculty or use any university resources. Students who do not enroll for a fall or spring semester without an approved leave of absence by the Office of Graduate Education are considered withdrawn from the university under the assumption that they have decided to discontinue their program. Students removed

for this reason may reapply for admission to resume their degree program; the application will be considered along with all other new applications to the degree program.

Advising

Role of the Graduate Coordinator

The graduate coordinator is available to students to help explain department and university policies and procedures. Any question about paperwork, university policies or services should be addressed first to the graduate coordinator, who will answer the question or make a referral to the appropriate university office or personnel. All questions regarding coursework or research applied toward the degree should be addressed to the student's faculty mentor/advisor or supervisory committee.

Role of the Faculty Mentor or Advisor (Committee Chair)

Students are assigned an initial faculty *mentor* when they enter the program. The mentor's role is to assist the student with choosing appropriate classes at the beginning of their program and help identify ideal faculty for the student to talk with for the purpose of establishing the supervisory committee. The mentor may become the student's faculty advisor but this is not always the case. The potential advisor must agree to participate in this role.

A student's first responsibility is to meet with several faculty members with the intent of identifying one who will serve as the student's *advisor* (*aka committee chair*) throughout the program. This advisor will act as chair or co-chair of the student's supervisory committee. Students are encouraged to consult with their faculty mentor or advisor prior to registering for classes each semester to ensure classes will contribute to degree completion.

Committee Participation Eligibility

A full supervisory committee must be interdisciplinary and have a minimum of three people (one committee chair and two members or two co-chairs and one member). The chair or co-chair of the supervisory committee must be a <u>SOS faculty member</u> or <u>approved by the Office of Graduate Education</u> to chair an SOS committee and must meet certain criteria. Usually, only tenured or tenure-track faculty are granted thesis-chair approval. Please check with the graduate coordinator about chair eligibility if there are any questions. Committee members are typically ASU faculty members (not limited to SOS faculty) or a <u>Sustainability Scientist or Scholar</u>.

Faculty Emeriti who meet Office of Graduate Education criteria may serve as members or co-chairs on graduate supervisory committees. They may serve as chairs with the recommendation of the academic unit and approval of the Office of Graduate Education on a case by case basis. Qualified individuals outside the university, upon the recommendation of the graduate director and approval of the Office of Graduate Education, may serve as members of thesis and dissertation committees. All such requests must be submitted to the Office of Graduate Education for approval using one of the appropriate <u>Committee Approval</u> forms. Questions about committee formation and university procedures can be addressed to the graduate coordinator.

Establishing a Committee Chair

All students are expected to identify a faculty advisor (committee chair) no later than the middle of the second semester in the program. The plan of study (iPOS) is due by March 1. The student must list the committee chair on the online iPOS in order to submit it. Therefore, the student is encouraged to establish the chair by the end of the first semester or near the beginning of the second semester to meet the March 1 deadline.

To establish a committee chair, the student must ask the potential committee chair if he or she is willing to take on the student as their advisee in the role of chair (not member). If the student wants to work with two faculty members, who will both serve as advisors, then the roles will be co-chairs. In a co-chair situation, both faculty need to be aware that they are co-chairs and be informed of who is serving as the other co-chair. Approval from both is required.

The student will list the confirmed chair or co-chairs on the plan of study. The graduate coordinator will follow up with the student and the faculty if additional paperwork is requested by the Office of Graduate Education.

Students who are unable to establish a committee chair should consult with their assigned mentor or the graduate director.

Once a committee chair has been established, students work with their chair to map out their entire degree progression (plan of study). Students will also consult their chair for forming a supervisory committee made up of members who can provide an interdisciplinary perspective on the student's research.

Establishing a Supervisory Committee

Since the committee must be interdisciplinary, the student should talk with several faculty members to determine possible committee members and then discuss the options with the committee chair. The student will need to ask the potential committee members if they are willing and able to participate in the role of member on the student's committee. When two willing committee members have been found, the student adds their names to their iPOS and submits it for review.

The remaining committee members should be selected by the end of the second semester. Students should confirm directly with the chair and committee members that each person is willing and able to participate on the student's committee. Once confirmed, the student lists each person on the plan of study (iPOS) to officially establish the committee with the university. The graduate coordinator will follow up with the student and the faculty if additional paperwork is requested by the Office of Graduate Education.

Plan of Study

An interactive plan of study (iPOS) must be filed online via MyASU with the Office of Graduate Education. The iPOS is a formal plan to meet degree requirements. It includes all courses to be taken and the designation of a thesis. The iPOS is an agreement that the work specified on the iPOS will be sufficient for the desired

degree. Master's students should submit the iPOS online by March 1 of the second semester and <u>before</u> they complete 50% of their coursework (i.e., fifteen credit hours). Changes can be made as necessary after the iPOS has been initially approved.

<u>Instructions on Filing the Interactive Plan of Study (iPOS)</u>

Students must select courses that meet the requirements noted in the Graduate Handbook. They should consult the graduate coordinator if they have any questions. Submitting an iPOS that does not meet program requirements will delay the review process. Students who are seeking approval to have a course not listed as an approved course count towards one of their requirements should start by submitting a School of Sustainability *Petition Form*, which can be found on the SOS Graduate Community Blackboard site.

Students are encouraged to use their degree check sheet to plan out their entire coursework, discuss the plan with their committee chair and receive the chair's approval and then submit the classes via the iPOS system in MyASU. Upon submission, the graduate coordinator will begin the review process.

The student's iPOS will remain in review until the graduate coordinator, the student's committee chair and the graduate director ensure the courses selected meet the program requirements. The graduate coordinator then approves the iPOS online, and it is routed to the Office of Graduate Education for the final review. Once the Office of Graduate Education approves the iPOS, the status changes from in review to approved. If an iPOS is rejected for any reason, at any level of review, the graduate coordinator will provide details to the student for correcting the issue.

Course and committee changes can be made to an approved iPOS. Changes go through the same review process described above. Some changes to the iPOS may require a paper petition or an online petition within the iPOS system. Consult the graduate coordinator for questions about petitions.

An iPOS, approved by the Office of Graduate Education, must be on file before a student's thesis proposal is considered.

IMPORTANT NOTE: All student program forms, regardless of where they are processed, must first be submitted to the graduate coordinator. The graduate coordinator will make an electronic copy for the student's file and ensure that forms are routed to the correct unit for processing.

iPOS Workshop

The graduate coordinator will hold at least one iPOS workshop each semester to help students successfully submit the iPOS or changes to the iPOS. The graduate coordinator will also discuss how and when to submit a SOS petition and the Office of Graduate Education committee approval forms, which are items that should be done prior to submitting the iPOS or iPOS changes to avoid delays in the review process.

Students are encouraged to attend the iPOS workshop before submitting their iPOS for the first time and before graduation, since the iPOS must be accurate to avoid having a graduation application withdrawn by the Registrar's Office due to an iPOS with errors.

Students who are not able to attend an iPOS workshop can set up an individual advising appointment with the graduate advisor by contacting the SOS advising front desk.

Check Sheet

Until the plan of study is filed, students can track coursework requirements using the *Master's SOS Check Sheet* found on the SOS Graduate Community Blackboard site. The graduate coordinator will also keep track of each student's degree requirements and will keep a copy of the check sheet in the student's file. The check sheet will be used in the student's annual review. Students are encouraged to meet with the graduate coordinator to review their check sheets.

Course and Graduation Requirements

The plan of study comprises a minimum of thirty-three credit hours.

	Semester HRS
Core Courses	18
Challenge Area Seminars	10
Solutions Workshops	3
Thesis	6
Electives (400-level or 500-level)	6
Total Semester Hours Required	

Non-degree credit from ASU, combined with transfer from another institution, may not exceed twelve credit hours on the iPOS.

Core Courses (18 hours)

The core courses are designed to provide students from diverse backgrounds with method and theories for the study of sustainability. They explore the link between concepts of sustainability and systems approaches to knowledge, and develop the integrative methods needed to work across the disciplines on sustainability problems. The following two courses are required of all students:

SOS 510: Perspectives on Sustainability (3) (Required for all graduate students in the first semester)

University-wide course covering perspectives and relevant theories on sustainability. Using case studies, faculty and students from engineering, architecture, humanities, business social sciences, and natural sciences exchange ideas on the major challenges involved in creating a sustainable future at local, national, and global levels.

SOS 598: Introduction to Research Design and Methods (3) (Required for all

M.A., M.S. and Ph.D. students in the first semester)

This class is designed to provide students with an overview of a diversity of methods currently used in sustainability research, and to help them develop the skills needed to match methods with research questions, and to critically assess the strengths and limitations any method brings to research.

In addition to these two courses, students are required to take twelve hours from the following lists of additional core courses and challenge area seminars:

SOS 511: Transformational Sustainability Research (3)

Transformational sustainability research aims at developing evidence-based solutions to real-world sustainability challenges. The course introduces a methodological framework that integrates methods from description/analysis to visioning and strategy building (from knowledge to action); addresses the specific functions, underlying assumptions, strengths, and weaknesses of sustainability research methods; familiarizes students with distinct ways of how to combine sustainability research methods for problem solving (e.g., intervention research, transition research); integrates two short training programs, one on teamwork skills, the other one on participatory research with stakeholders.

-OR-

SOS 591: Applied Robustness Analysis in Social Ecological Systems (3)

In this course students will learn how to use qualitative case-study comparison and analysis to understand the robustness of social ecological systems (SESs) and socio-technical systems (STSs). In particular, students will engage with the Robustness Framework developed by Anderies, Janssen, and Ostrom and related tools from institutional analysis, political science, economics, and ethnography in order to study SESs/STSs.

-OR-

SOS 591: Qualitative Methods for Sustainability Problems (3)

This course introduces students to the theory and application of qualitative methods to sustainability research and practice. By the end of the course students will have defined and framed a sustainability problem and applied a range of qualitative methods to it, be able to articulate the strengths and weaknesses of these methods, and have a framework for assessing the appropriate use and evaluation of qualitative methods.

-OR-

SOS 591: Seminar on Stochastic Modeling Ecology and Hydrology (3)

This course takes a problem-based approach to introduce stochastic

modeling in context of ecology and hydrology. The format will be that of a seminar course. The students will be asked to study selected papers in detail, through reading and in-class discussion, such that they understand and can derive the results and mathematical expressions reported therein. During the first part of the course, the instructor will lead the discussion. Afterwards, the students will take turn to lead the discussion

-OR-

SOS 598: Mathematical Concepts and Tools in Sustainability (3)

This course will equip you with some of the mathematical concepts and tools necessary for understanding and tackling sustainability problems. These concepts and tools will be introduced in a problem-based context. It will start with a toy model of sustainability, a simple model that explores how human and natural systems interact, including the effects of time lags on stability.

SOS 512: Sustainable Resource Allocation (3)

Microeconomic principles of resource allocation applied to environmental goods and services; external environmental effects and environmental public goods; decision-making under uncertainty; adapting to and mitigating environmental changes.

-OR-

SOS 598: Ecological (Sustainability) Economics (3)

Description to be posted.

-OR-

SOS 598: Microeconomics of Behaviour (3)

Description to be posted.

SOS 513: Science for Sustainability (3)

Carbon cycle; nutrient cycles; carbon and nutrients in the oceans; climate change; oxygen and ozone; solid-waste pollution; urban-air pollution.

SOS 514: Human Dimensions of Sustainability (3)

Concepts and definitions of the human dimensions of sustainability; the role of attitudes and values in shaping sustainability goals, practices, and programs; the diversity of values and socio-cultural contexts relating to sustainability; bottom-up and top-down sustainable policy development, social-data-collection methodologies.

-OR-

SOS 553: Ecological Anthropology (3)

Focuses on the theories and methods that environmental anthropology

(EA) can bring to bear on human-environmental questions across a variety of social-ecological systems. Explores how environmental anthropologists approach these complex challenges, and considers the role of EA within larger interdisciplinary approaches for understanding development, adaptation, vulnerability, and change.

-OR-

<u>SOS 591</u>: Sustainability Science: Interactions Between Human and Environmental Systems (3)

This is a course on the core theories of sustainability science -- an emerging field of problem-driven research dealing with the interactions between human and environmental systems. The problem that motivates the course, and the field, is the challenge of sustainability: improving the well-being of present and future generations in ways that conserve the planet's life support systems over the long term.

-OR-

SOS 591: Adaptation, Resilience and Transformation (3)

Adaptation has emerged as a core concern of public policy and international development. While adaptation has long been a subject of academic research in the natural and social sciences, in the context of global environmental change adaptation has taken on new and different meanings. Resilience, a concept familiar in ecology, has also entered into the debate on human response to stress and disturbance. Here the concept has been used to highlight concerns about the direction of social change and the dynamics of social-ecological systems.

SOS 515 Industrial Ecology and Design for Sustainability (3)

Conceptual, ethical, and practical challenges in the design, manufacture, and lifecycle performance of products; environmental evaluation via materials-flow analysis and life-cycle assessment; global economic, environmental, cultural, and social aspects of competitive and functional product development and manufacture.

CEE 598

-OR-

Life Cycle Assessment for Civil Systems (3)

Covers fundamental and advanced concepts of the life cycle assessment (LCA) framework exploring products, services, activities, and infrastructure systems. Key concepts for system boundary selection, functional unit selection, inventorying, impact assessment, and interpretation stages are examined with a focus on energy and environmental assessment.

SOS 516: Science, Technology, and Public Affairs (3)

Political, economic, cultural, and moral foundations of science and technology policy and governance in democratic society.

- OR -

SOS 518: Uncertainty and Decision Making (3)

Explores uncertainty and its relationship to decision making, with a particular focus on the ways that science is applied in order to improve decisions. A central theme is the relationship among uncertainty, scientific prediction, and decision making, especially with regard to politically charged issues, e.g., as related to management of the environment.

SOS 517: Sustainability & Enterprise (3)

Examines the evolving interface between sustainability and human enterprise. Explores and reviews key fundamental concepts in the sustainability arena. Delves into specific case studies of attempts by current businesses to become "greener" and "more sustainable", Alternative enterprise models and examples of businesses that are using the current context to redefine the sustainability and enterprise interface will be also explored and discussed. Explores and applies an integrated approach to sustainability and enterprise.

SOS 570: Fundamentals of CAS Science (3)

Many phenomena of critical relevance to human society are dynamic systems that change over individual and evolutionary time scales, and are highly interactive, both within and between systems. That is, they are complex adaptive systems (CAS), and thus share isomorphic properties like near-decomposability, hierarchical organization, scale-free networks, self-organized criticality, and emergence. Fundamentals of CAS science explores the diverse, interdisciplinary applications of a complex adaptive systems across the social, behavioral, and life sciences.

SOS 591: Governance for Sustainability (3)

Governance for sustainability involves the emergence of self-governing networks that regulate actors; interactions with the goal of improving sustainability outcomes measured in terms of social and ecological performance (efficiency, equity, accountability, adaptation capacity, biodiversity, etc.).

SOS 591: Environmental Ethics and Policy (3)

An advanced, discussion-intensive course in applied environmental ethics and policy studies. Seminar participants will examine the ethical foundations of evolving environmental policy and management goals, including emerging issues relating to environmental valuation and the societal and scientific dimensions of formulating ecological and conservation policy on a rapidly changing planet.

-OR-

SOS 598: Sustainability Ethics for Science and Engineering (3)

This course uses a novel, game-based pedagogy to immerse students in the salient ethical problems of sustainability, including: environmental externalities, the Tragedy of the Commons, weak vs. strong sustainability, and intra-generational equity. Students will formulate and test moral hypotheses via on-line collaboration with multiple Universities simultaneously administering the same game modules on their campuses. Applications in climate change.

Note: Additional courses may be added to this list.

Challenge Area Seminars

Challenge-area seminars provide students with a strong foundation (content knowledge, big theory, and big studies) in the main themes of the School. Students are required to complete at least three challenge area seminar hours related to their area of focus.

SOS 530: International Development and Sustainability (3)

Historical roots of the idea of development; economic theories of growth and their implications for sustainability; interrelationship among population growth, food security, poverty, inequality, urbanization, technological change, international trade, and environmental change at local, regional, and global scales.

SOS 532: Sustainable Urban Dynamics (3)

Human and physical processes shaping urban ecologies and environments; human-environment interactions in the context of an urban region; effect of institutional and regulatory frameworks on the resilience and sustainability of social and urban-ecological systems; urban design, materials, transport, planning, and regulation.

SOS 533: Sustainable Water (3)

Hydrological, legal, political, and ecological implications of alternative water-management strategies; effect of institutional and regulatory frameworks; changes in water demand and supply due to human (population growth, economic changes) and natural (drought, climate change) factors.

SOS 534: Sustainable Energy and Material Use (3)

Sustainable engineering; overall energy needs and impacts; thermodynamics, heat transfer, and fluid mechanisms; atmospheric energy systems; field investigation; current and future urban energy systems.

SOS 535: Sustainable Ecosystems (4)

How human activities and management practices alter biodiversity, ecosystem functioning, and the provisioning of ecosystem services; use of economic and other social-science perspectives to estimate the value of ecosystem services; evaluation of options for achieving the

sustainable flow of services from ecosystems.

SOS 536: Food System Sustainability (3)

Takes a broad view of food systems and the sustainability of such systems. Students are exposed to concepts, theory, methods and empirical analyses from diverse disciplines, including agro-ecology, agronomy, political science, agricultural economics, geography, anthropology and food and nutrition studies.

SOS 591: Legal Issues in Sustainability (3)

Addresses law as both an enabler and an impediment to the identification and adoption of sustainable practices. Looks at the intended and unintended impacts of the law on the social, environmental, and economic components of sustainability solutions.

SOS 591: Sustainability and Social and Family Welfare (3)

Understanding of social welfare through multiple lenses including sustainability; examine solutions associated with policy, family and household dynamics, neighborhood stability, social equity, environment, and health; emphasizes challenges in social and economic justice in a society with competing wants, needs, and values.

SOS 598: Urban Ecological Systems (3)

Deals broadly with the general topic of ecology of and in urban environments, the ecosystem in which over half the world's population lives. Covers the physical, ecological, and social environment of cities and how these spheres can be integrated to advance understanding and effective management of urban ecological systems.

SOS 598: Sustainable Futures Studio (3)

This course explores methods for thinking about the future and designs participatory future-oriented engagements. Focused on technology and the city, students will investigate the complex socio-technical relations that sprout up in the city that help shape future prospects for sustainability. Through study of theoretical and practical approaches to investigate socio-technical change, this course evolves to ask critical questions about responsible innovation and civic engagement. The focal project for this course will involve engaging local citizens in deliberative exercises about the potential role of nanotechnology in transforming Phoenix.

SOS 598: Urban Infrastructure Anatomy and Social Development (3)

Understanding how built environment infrastructure systems interact with ecosystem services is a critical for policies and decisions directing urban sustainability. The "Urban Infrastructure Anatomy and Sustainable Development" (SOS 598) course will bring together students from several disciplines to develop a semester-long research project focused on a particular urban sustainability problem in Phoenix. During the semester, students will be given background on how infrastructure systems work and are interdependent, and will explore tools and

methods for urban sustainability assessment with peers from several disciplines. As a class, students will evaluate a particular urban sustainability problem for Phoenix, interact with local policy and decision makers in developing solutions, and present their findings at the end of the semester to the ASU community.

SOS 598: Human & Social Dimensions of Climate Change (3)

The human dimensions research on climate change has become a central focus in the search for global action on the climate change dilemma. The seminar will draw upon the disciplines of social and natural sciences such as geography, anthropology, ecology, economics, political science, and humanities. Students working on a range of topics that explore the debate of climate change science and impacts from a vantage point of social, cultural, economic, political, and policy perspectives will certainly benefit from this seminar. To develop a more comprehensive understanding of human dimensions of climate change, the class will rely on the in-depth discussions between students and the instructor.

SOS 598: Climate Science for Sustainability (3)

Introduction to the dynamic interactions between the oceans, earth surface, and atmosphere that control Earth's climate in its present state, in the context of past climates and projections for future climates. The course will assess the factors that will affect the trajectory of future climate change, and the sources and measurement of the critical climate parameters that are essential for guiding decisions for a sustainable future. There will also be consideration of recent climate science-related controversies, and assessments of scientific statements related to these controversies.

SOS 598: Sustainability Livelihoods & Biodiversity Conservation in the Tropics (3)

This course explores the intersection between biodiversity conservation and sustainable development. Coming from different perspectives, these worlds are colliding. The course first covers the history of conservation and the history of the concept of development, then exploring the meanings of sustainable development and sustainable livelihoods, particularly in the developing and less-developed world. Finally, we will look at the recent history of efforts to implement more socially just conservation efforts, critiques of these efforts, and opportunities for the future.

Note: Additional courses may be added to this list.

Solutions Workshops

Solutions workshops provide students with experience solving real-world problems that involve multiple sustainability challenges. They are problem-based and not specifically attached to a single main theme.

Students are required to complete at least three hours of solutions workshops. Please check the online schedule of classes for a current list of workshops offered (under SOS 594).

Elective Courses (6 hours)

Subject to satisfying pre-requisites and co-requisites, students pursue six credit hours of electives. Electives should be chosen in consultation with the student's chair. Electives can be taken outside of the School of Sustainability – A comprehensive list of possible sustainability and sustainability-related courses can be found online.

Students are encouraged to take professional development courses that are appropriate to their interests (e.g., the SOS reading group, brown-bag discussion group, Preparing Future Faculty coursework). These courses will most likely count as electives, subject to approval by the student's chair.

Thesis Course (6 hours)

Students are required to devote six credit hours to writing the thesis by registering for SOS 599: Thesis. Students will not be able to enroll in thesis hours until they have an approved supervisory committee on their iPOS and have an approved thesis proposal. Students may register for Research, SOS 592: Research, with approval from their committee chair, but these hours are not necessary for the plan of study. All master's degree candidates must enroll for at least one credit hour within the School of Sustainability during the semester in which the thesis is defended, including summer.

If a thesis is defended past the Office of Graduate Education's defense deadline, the student will be required to register for at least one credit hour, e.g., SOS 595: Continuing Registration, in the following semester, even if the defense happens before the start of that following semester. For example, if the defense takes place in spring but after the defense deadline for spring graduation, then the student will still have to register for SOS 595 in summer and will be a summer graduate.

Thesis Proposal

Students should submit a thesis proposal to the supervisory committee for review and approval before they embark on research, and at least one semester before they expect to defend. The thesis proposal must be approved before the student can register for Thesis (SOS 599) credits. Normally the proposal is approved prior to the third semester in the program. The SOS *Master's Thesis Proposal Form*, available on the SOS Graduate Community Blackboard site, must be completed and signed by the student and the supervisory committee when the proposal has been approved. The completed form, together with a digital copy of the proposal, must be submitted to the graduate coordinator.

Thesis Paper and Defense

Every thesis is required to meet a certain standard as a recognizable product of ASU. The student's committee, department and the Office of Graduate Education expect to see evidence of careful attention to style and format in the document that the

student presents as part of their culminating experience. Please follow the <u>formatting guidelines</u> set by the Office of Graduate Education. For more information on thesis style, students should consult the *Format Manual* and their committee chair.

The student's supervisory committee will conduct an oral examination in defense of the thesis. Master's thesis defenses are open to all members of the university community. Oral defenses are held on an ASU campus during regular business hours to facilitate student, faculty and public accessibility. Students are encouraged to defend the thesis during the fall or spring semester since many faculty members are not on campus over the summer and the Office of Graduate Education has strict rules about committee members being present at the defense. Tips on preparing for the defense can be found online.

The student will continuously work with the entire committee toward a defense date. The entire committee must review the complete draft before a defense date can be determined to ensure the student is ready for the defense step. Reviews of the draft will take a least two weeks but the student should submit the draft at least a month prior to the desired defense date. Failure to provide enough review time to the entire committee may result in the postponement of the defense date or graduation term.

Once the committee agrees on the day and time of the defense, the student needs to reserve a room for the defense. Students may contact the graduate coordinator for room reservation instructions. At least ten working days prior to the oral defense, the student must send a copy of the thesis for evaluation to the Office of Graduate Education thesis editor (gradformat@asu.edu) and schedule the defense through MyASU. Please consult the Office of Graduate Education's website for the <u>Graduation Deadlines and Procedures</u> and the <u>10 Working-Day Calendar</u>.

Pass/Fail Form

Upon the Office of Graduate Education's approval of the defense date, the entire committee and the graduate coordinator will receive the student's pass/fail form from the Office of Graduate Education by email. The committee chair or co-chair will bring the pass/fail form to the defense. This form is not given to the student until after completing all thesis and defense requirements. However, the graduate coordinator must have a copy of the pass/fail form after the defense despite the results, since the results must be reported to the Office of Graduate Education within 10 days.

Defense Announcement

After the defense date is approved by the Office of Graduate Education, the student will receive a defense announcement template from the graduate coordinator. The student will provide the thesis title page, abstract page, list of committee members and the date, time and location of the defense. The announcement must be emailed to the graduate coordinator in MS Word format so that edits can be made if needed. The graduate coordinator will then post the announcement on the SOS Events website and send an e-mail notice to students and faculty prior to the defense.

The defense announcement is due two weeks before the defense date.

After the Defense

After a student completes the oral defense of the thesis, he or she will want to take care of <u>final arrangements to ensure completion of the degree</u>. The graduate coordinator needs a copy of the pass/fail form after the defense. If the student passes with no revisions needed, then the committee will give the signed original pass/fail form to the student. The student then needs to drop off a photocopy of the form or email a PDF of it to the graduate coordinator before taking the original to the Office of Graduate Education.

If a student passes with major or minor revisions, then the committee chair will retain the form (or give it to the graduate coordinator) until all revisions have been submitted and approved. At that time, the chair will sign the original form to signify all requirements have been met. The student must deliver the form in person to the Office of Graduate Education by the deadline (see the Office of Graduate Education's list of <u>deadlines</u>) but needs to send a copy to the graduate coordinator first.

After the defense, the student should ask their chair to email a copy or drop off a photocopy of the pass/fail form to the graduate coordinator immediately. The graduate coordinator will report the results to the Office of Graduate Education. The report of results is due within 10 working days of the defense so that the Office of Graduate Education knows if the form is due (pass with no revisions), revisions are required (for a pass with major or minor revisions) or if the student did not pass the defense. In some cases, the results may be due in less than 10 days after the defense. Refer to the graduation deadlines posted on the Office of Graduate Education's website.

Graduation Exit Session

The graduate coordinator and events coordinator hold an information session each semester for graduate students who plan to graduate soon. These sessions are designed to help students understand all requirements for graduating on time. Students who miss university deadlines may have a delayed graduation term, resulting in having to take an additional course to maintain enrollment.

During the graduation exit session, the graduate coordinator reviews the Office of Graduate Education and SOS policies, procedures and deadlines for each type of degree offered by SOS. The events coordinator reviews procedures for the graduation ceremonies offered by the Office of Graduate Education (commencement) and SOS (convocation).

Students are encouraged to attend the graduation exit session during the semester they intend to graduate. Students may also attend a session prior to their last semester to understand the requirements earlier. It is permissible to attend the graduation exit session multiple times.

Pre-admission Credits

Pre-admission credits are classes applied toward degree completion but were taken prior to admission to the graduate program. These classes can be transfer courses from another institution or classes taken at ASU as a non-degree seeking student or as an admitted graduate student of another program.

Pre-admission credits cannot have been used toward another degree that was awarded. Students can use up to 12 credit hours of pre-admission credits. The School and the Office of Graduate Education must approve the specific courses used for pre-admission credits in order for the student to use them on the plan of study.

Pre-admission credits must meet the following requirements:

- taken at an accredited college or university
- graduate-level
- student must have obtained an "A" or "B" grade or the equivalent in the course(s)
- approved by supervisory committee as part of the plan of study
- completed within three years of being admitted to this graduate program

The taking of courses for graduate credit as an undergraduate or non-degree student does not ensure admission to the program or acceptance of the acquired graduate credits as part of the plan of study.

The Office of Graduate Education has extensive rules regarding pre-admission credits. For complete details, consult the <u>ASU Graduate Policies and Procedures</u> handbook.

Time Limit

Students should complete the master's degree program within two years. Exceptions must be approved by the supervisory committee and the graduate director.

Concurrent Master's Degrees

A master's degree in sustainability may be taken concurrently with another master's degree through a specific, cooperative arrangement with another ASU department. Students must be admitted separately to each degree program. The plan of study for the MA or MS in sustainability requires thirty-three credit hours. A maximum of 20 percent of the minimum total credit hours for the completion of both degrees may be common hours shared between the Plans of Study provided that the corresponding courses appear on the student's plan of study in both degree programs.

The School of Sustainability presently has an agreement with the School of Public Affairs to offer concurrent degrees with the Master or Public Policy (MPP) and the Master of Public Administration (MPA). The School also has an agreement with the School of Geographical Sciences and Urban Planning to offer a concurrent degree with the Master of Urban and Environmental Planning (MUEP). Students must be admitted to both programs first to seek approval to pursue a concurrent arrangement.

There is only one (joint) application required if applying to the MPP or MPA program with Sustainability's MA or MS program. Two separate applications are required if applying to the MUEP program and any of Sustainability's programs.

Pursuing a concurrent degree in a program other than MPP, MPA and MUEP is possible; however, advising from the SOS graduate coordinator and the other

program is recommended as early as possible. Beginning one graduate program and then adding a concurrent degree in a later semester may have consequences with regards to pre-admission credits, eligibility of sharing classes between the two programs and tuition expense of maintaining continuous enrollment in both programs until completing both degrees.

Master's International Peace Corps Program

Students can now pursue an MA or MS in Sustainability and participate in the <u>Master's International Peace Corps Program</u>, which integrates graduate study with an international development field experience.

Important Milestones in the Masters Plan of Study

	Fall
	Attend Fall Welcome activities, Camp T retreat and graduate forums.
	Meet with faculty mentor or advisor and discuss iPOS and program goals.
	Successfully complete SOS 510 and SOS 598 Introduction to Research Design and Methods.
	Attend iPOS workshop and use check sheet to create a draft iPOS.
	Attend funding workshops; investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.
	Spring
ear	Attend welcome back events and graduate forums.
>	Establish committee chair before March 1. Discuss program goals, iPOS and possible committee members with the chair.
FIFST	Submit iPOS and Annual Review survey/ Request for Funding form by March 1.
Ξ	Participate in graduate recruitment event activities (early March).
	Seek out summer internship and research opportunities; organize summer thesis research plans.
	Establish the committee, with approval from your chair and proposed committee members, by the end of the semester.
	Submit thesis proposal to supervisory committee. Upon the committee's approval, submit the thesis proposal and proposal form to graduate coordinator. (This can be done early in the third semester.)
	Complete the Graduate Program Annual Satisfaction survey.
	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.
	Fall
_	Attend Fall Welcome activities and graduate forums.
ear	Review iPOS for accuracy; submit updates if needed.
cona Y	Meet with committee to discuss thesis progress early in the semester. Submit thesis proposal to committee. Upon their approval, submit thesis proposal and proposal form to the graduate coordinator. (The thesis proposal can be done in the second or third semester.)
ပ်	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.
ñ	Attend graduation exit session to preview required procedures for the defense and graduating on time (optional).

Last Updated: 7/15/13 – draft revision state

Attend welcome back events and graduate forums. Review iPOS for accuracy; submit updates if needed. Meet with committee early in the semester to discuss thesis progress and to select a defense date. Apply for graduation by Feb. 15. Submit Annual Review Survey by March 1. Attend graduation exit session to review procedures for the defense and graduating on time. Schedule defense and submit final draft to gradformat@asu.edu; follow Office of Graduate Education deadlines. Defend. After defense, submit required forms, paper revisions to committee (if required), final paper to gradformat@asu.edu and submit format approved paper to ProQuest. Complete the Graduate Program Annual Satisfaction survey. If participating in graduation ceremonies, respond to emails from the SOS events coordinator. Complete alumni survey (sent by the SOS employer relations and career services specialist).

Doctoral Degree (PhD)

Continuous Enrollment

Once admitted to a graduate degree program, doctoral students must be registered for a minimum of one credit hour (not audit) during all phases of their graduate education. This includes periods when they are engaged in research, culminating exams, working on or defending their dissertation prospectus or final dissertations, or in any other way using university facilities or faculty time including the term in which they graduate.

Registration for every fall and spring semester is required. Summer registration is required for students who are completing culminating experiences, defending disertations, or graduating from the degree program.

To maintain continuous enrollment, credit hours must:

- · Appear on the student's plan of study, or
- Be Research (SOS 792), Dissertation (SOS 799), or Continuing Registration (SOS 795), or
- Be a graduate-level course.

Grades of "W" (withdrawal) and/or "X" (audit) are not considered valid registration for continuous enrollment purposes. "W" grades are received when students officially withdraw from a course after the drop/add period. "X" grades are received for audit courses. Additionally, students completing work for a course in which they received a grade of "I" must maintain continuous enrollment as defined previously. Graduate students have one year to complete work for an incomplete grade; if the work is not complete and the grade changed within one year, the "I" grade becomes permanent.

Students planning to discontinue enrollment for a semester or more must request approval for a leave of absence. Student may <u>petition the Office of Graduate Education</u> for a leave of absence for a maximum of two semesters during their entire program. A petition for a leave of absence, endorsed by the members of the student's supervisory committee and the graduate director, must be approved by the Office of Graduate Education. This request must be filed and approved before the anticipated absence.

A student on leave is not required to pay fees, but in turn is not permitted to place any demands on university faculty or use any university resources. Students who do not enroll for a fall or spring semester without an approved leave of absence by the Office of Graduate Education are considered withdrawn from the university under the assumption that they have decided to discontinue their program. Students removed for this reason may reapply for admission to resume their degree program; the application will be considered along with all other new applications to the degree program.

Advising

Role of the Graduate Coordinator

The graduate coordinator is available to students to help explain department and university policies and procedures. Any question about paperwork, university policies or services should be addressed first to the graduate coordinator, who will answer the question or make a referral to the appropriate university office or personnel. All questions regarding coursework or research applied toward the degree should be addressed to the student's faculty mentor/ advisor or supervisory committee.

Role of the Faculty Mentor or Advisor (Committee Chair)

Students are assigned an initial faculty *mentor* when they enter the program. The mentor's role is to assist the student with choosing appropriate classes at the beginning of their program and help identify ideal faculty for the student to talk with for the purpose of establishing the supervisory committee. The mentor may become the student's faculty advisor but this is not always the case. The potential advisor must agree to participate in this role.

A student's first responsibility is to meet with several faculty members with the intent of identifying one who will serve as the student's *advisor* (*aka committee chair*) throughout the program. This advisor will act as chair or co-chair of the student's supervisory committee. Students are encouraged to consult with their faculty mentor or advisor prior to registering for classes each semester to ensure classes will contribute to degree completion.

Committee Participation Eligibility

A full supervisory committee must be interdisciplinary and have a minimum of three people (one committee chair and two members or two co-chairs and one member). The chair or co-chair of the supervisory committee must be a <u>SOS faculty member</u> or <u>approved by the Office of Graduate Education</u> to chair an SOS committee and must meet certain criteria. Usually, only tenured or tenure-track faculty are granted dissertation-chair approval. Please check with the graduate coordinator about chair eligibility if there are any questions. Committee members are typically ASU faculty members (not limited to SOS faculty) or a <u>Sustainability Scientist or Scholar</u>.

Faculty Emeriti who meet Office of Graduate Education criteria may serve as members or co-chairs on graduate supervisory committees. They may serve as chairs with the recommendation of the academic unit and approval of the Office of Graduate Education on a case by case basis. Qualified individuals outside the university, upon the recommendation of the graduate director and approval of the Office of Graduate Education, may serve as members of thesis and dissertation committees. All such requests must be submitted to the Office of Graduate Education for approval using one of the appropriate <u>Committee Approval</u> forms. Questions about committee formation and university procedures can be addressed to the graduate coordinator.

Establishing a Committee Chair

All students are expected to identify a faculty advisor (committee chair) before submitting the plan of study (iPOS), which is due March 1 in the second semester for students entering with a master's; in the fourth semester for students entering with a bachelor's. Since the iPOS cannot be submitted without a committee chair listed and the faculty member must agree to this role ahead of time, students are encouraged to establish their chair by the beginning of the spring semester in which their iPOS is due or sooner.

To establish a committee chair, the student must ask the potential committee chair if he or she is willing to take on the student as their advisee in the role of chair (not member). If the student wants to work with two faculty members, who will both serve as advisors, then the roles will be co-chairs. In a co-chair situation, both faculty need to be aware that they are co-chairs and be informed of who is serving as the other co-chair. Approval from both is required.

The student will list the confirmed chair or co-chairs on the plan of study. The graduate coordinator will follow up with the student and the faculty if additional paperwork is requested by the Office of Graduate Education.

Students who are unable to establish a committee chair should consult with their assigned mentor or the graduate director.

Once a committee chair has been established, students work with their chair to map out their entire degree progression (plan of study). Students will also consult their chair for forming a supervisory committee made up of members who can provide an interdisciplinary perspective on the student's research.

Establishing a Supervisory Committee

Since the committee must be interdisciplinary, the student should talk with several faculty members to determine possible committee members and then discuss the options with the committee chair. The student will need to ask the potential committee members if they are willing and able to participate in the role of member on the student's committee. When two willing committee members have been found, the student adds their names to their iPOS and submits it for review.

The remaining committee members should be selected by Sept. 1 of the third semester for students with a master's degree; by Sept. 1 of the fifth semester for students with a bachelor's degree. Students should confirm directly with the chair and committee members that each person is willing and able to participate on the student's committee. Once confirmed, the student lists each person on the plan of study (iPOS) to officially establish the committee with the university. The graduate coordinator will follow up with the student and the faculty if additional paperwork is requested by the Office of Graduate Education.

Plan of Study

An interactive plan of study (iPOS) must be filed online via MyASU with the Office of Graduate Education. The iPOS is a formal plan to meet degree requirements. It includes all courses as well as research and dissertation hours. The iPOS is an agreement that the work specified on the iPOS plus the comprehensive exam,

dissertation prospectus and dissertation will be sufficient for the desired degree. Doctoral students should submit the iPOS online <u>before</u> they complete 50% of their coursework and by March 1 of the fourth semester if entering with a bachelor's degree, or by March 1 of the second semester if entering with a master's degree. Changes can be made as necessary after the iPOS has been initially approved.

<u>Instructions on Filing the Plan of Study</u> (iPOS)

Students must select courses that meet the requirements noted in the Graduate Handbook. They should consult the graduate coordinator if they have any questions. Submitting an iPOS that does not meet program requirements will delay the review process. Students who are seeking approval to have a course not listed as an approved course count towards one of their requirements should start by submitting a School of Sustainability *Petition Form* – the form can be found on the SOS Graduate Community Blackboard site.

Students are encouraged to use their degree check sheet to plan out their entire coursework, discuss the plan with their committee chair and receive the chair's approval and then submit the classes via the iPOS system in MyASU. Upon submission, the graduate coordinator will begin the review process.

The student's iPOS will remain in review until the graduate coordinator, the student's committee chair and the graduate director ensure the courses selected meet the program requirements. The graduate coordinator then approves the iPOS online, and it is routed to the Office of Graduate Education for the final review. Once the Office of Graduate Education approves the iPOS, the status changes from in review to approved. If an iPOS is rejected for any reason, at any level of review, the graduate coordinator will provide details to the student for correcting the issue.

Course and committee changes can be made to an approved iPOS. Changes go through the same review process described above. Some changes to the iPOS may require a paper petition or an online petition within the iPOS system. Consult the graduate coordinator for questions about petitions.

An iPOS listing a full committee, approved by the Office of Graduate Education, must be on file before a student starts preparing for the comprehensive exam.

IMPORTANT NOTE: All student program forms, regardless of where they are processed, must first be submitted to the graduate coordinator. The graduate coordinator will make an electronic copy for the student's file and ensure that forms are routed to the correct unit for processing.

iPOS Workshop

The graduate coordinator will hold at least one iPOS workshop each semester to help students successfully submit the iPOS or changes to the iPOS. The graduate coordinator will also discuss how and when to submit a SOS petition and Office of Graduate Education committee approval forms, which are items that should be done prior to submitting the iPOS or iPOS changes to avoid delays in the review process.

Students are encouraged to attend the iPOS workshop before submitting their iPOS for the first time and before graduation, since the iPOS must be accurate to avoid

having a graduation application withdrawn by the Registrar's Office due to an iPOS with errors.

Students who are not able to attend an iPOS workshop can set up an individual advising appointment with the graduate advisor by contacting the SOS advising front desk.

Check Sheet

Until the plan of study is filed, students can track coursework requirements using the *Doctoral SOS Check Sheet* (found on the SOS Graduate Community Blackboard site). The graduate coordinator will also keep track of each student's degree requirements and will keep a copy of the check sheet in the student's file. The check sheet will be used in the student's annual review. Students are encouraged to meet with the graduate coordinator to review their check sheets.

Course and Graduation Requirements

Students may be admitted to the PhD program with either a bachelor's or a master's degree from a regionally accredited institution, or the equivalent of a US bachelor's degree from an international institution officially recognized by the country in which it is located.

If admitted with a bachelor's degree, students must complete a minimum of eighty-four credit hours. If admitted with a master's degree, they must complete a minimum of fifty-four hours.

	Semester Hours		
	Admitted with a Bachelor's	Admitted with a Master's	
Core Courses	21	15*	
Challenge Area Seminars	21	15*	
Solutions Workshops	6	3*	
Research	12	12	
Dissertation	12	12	
Electives **Of which, a maximum of 6 hours can be at the 400-level ***500-level or higher	33**	12***	
Total Semester Hours Required	84	54	

^{*}Assuming relevant coursework at the master's level.

Core Courses and Challenge Area Seminars

(21 hours if admitted with a bachelor's and 15 hours if admitted with a master's)

The core courses are designed to provide students from diverse backgrounds with method and theories for the study of sustainability. They explore the link between concepts of sustainability and systems approaches to knowledge, and develop the integrative methods needed to work across the disciplines on sustainability problems.

Challenge-area seminars provide students with a strong foundation (content knowledge, big theory, and big studies) in the main themes of the School.

PhD core and challenge courses are the same as those for the master's degrees, including SOS 510 and SOS 598 Introduction to Research Design and Methods, which are also required of all PhD students. (See pages 12-19.)

Solutions Workshops (6 hours if admitted with a bachelor's and 3 hours if admitted with a master's)

Solutions workshops provide students with experience solving real-world problems that involve multiple sustainability challenges. They are problem-based and not specifically attached to a single main theme. Please check with the online schedule of classes for a current list of workshops offered (under SOS 594).

Research and Dissertation (24 hours)

At least twelve hours of the approved PhD program must be SOS 792 Research, and at least twelve hours must be SOS 799 Dissertation. Students will not be able to enroll in dissertation hours until they have an approved supervisory committee on their iPOS. Students may not apply credit hours earned for a PhD previously awarded at ASU or another institution. At least thirty hours (which may include research credit) of the approved PhD program and twelve dissertation hours must be completed after admission to a PhD program at ASU. A maximum of twelve dissertation hours is permitted on the plan of study.

SOS 792	Research
SOS 799	Dissertation

Please see additional information about the dissertation on the following page.

<u>Elective Courses</u> (12 hours if admitted with a master's and 33 hours if admitted with a bachelor's)

Subject to satisfying pre-requisites and co-requisites, students admitted with a master's degree select a minimum of twelve credit hours of electives at the 500-level. Students admitted with a bachelor's degree select a minimum of thirty-three credit hours from the list, of which a maximum of six hours can be at the 400-level. Electives should be chosen in consultation with the student's chair. Electives can be taken outside of the School of Sustainability – A comprehensive list of possible sustainability and sustainability-related courses can be found online.

Students are encouraged to take professional development courses that are appropriate to their interests (e.g., the SOS reading group, brown-bag discussion group, Preparing Future Faculty coursework). These courses will most likely count as electives, subject to approval by the student's chair.

Master's in Passing

The Master's in Passing (MIP) option is offered to exemplary students accepted into the PhD program without a master's degree. Students who complete the requirements will be offered either an MA or MS in Passing. The Master's in Passing option is not automatically available to all PhD students. To be eligible, a student must meet the following criteria, and follow these steps.

- 1. Complete thirty-three hours of coursework that meet the requirements for the non-thesis master's degree;
 - Courses taken before the student was admitted to the PhD program CANNOT be used on the MIP iPOS. Please check with the graduate coordinator for more information about what can and cannot be used.
- 2. Have a 3.25 or higher ASU GPA in all courses numbered 500 and above, as well as in all coursework that is included on the plan of study;
- 3. Have selected a supervisory committee;
- 4. Submit a portfolio for review by the supervisory committee consisting of the following work (papers should include grades received and instructor comments):
 - a. One exemplary research paper
 - b. One exemplary paper or project of an applied nature
 - c. A short paper (such as an essay or an opinion piece) or a poster
 - d. A reflective essay discussing the papers that looks back at the learning demonstrated in the pieces and forward to knowledge and skills that the student needs to develop
- 5. When the portfolio is approved by the supervisory committee, see the graduate coordinator to complete a <u>Master's in Passing Request</u> form and obtain all relevant signatures;
- 6. The student will be prompted by the Office of Graduate Education to complete an MIP iPOS.
- 7. Apply for graduation or the MIP will not be awarded.

Note: Students who include 30 hours from a previously awarded master's degree on their doctoral plan of study are not eligible for a Master's in Passing.

Please see the Graduate Coordinator for more detailed instructions.

Comprehensive Examination

When students have completed or are close to completing the coursework in an approved plan of study, they may request permission to take the comprehensive examination. Students must be in good academic standing regarding GPA requirements prior to taking the doctoral comprehensive examination. PhD comprehensive examinations are administered by the student's supervisory committee. The supervisory committee should be diverse and not represent a single discipline or narrow field of expertise.

The student must fill out Part I of the <u>Report of Doctoral Comprehensive Examination</u> form and submit it to the examining committee chair for completing of the additional Parts and signatures from the examining committee.

In preparation for the comprehensive examinations, the student will prepare a short research statement (approximately 600 words) and a related bibliography for review by their supervisory committee. Students should request reading suggestions from committee members before creating the final bibliography for supervisory committee approval. The candidate and committee should prepare the reading lists and bibliography taking into account the following guidelines: Readings should be relevant to the dissertation, but cover bodies of knowledge broader than what is required to write the dissertation. Candidates should select readings that demonstrate how their research relates to broader contexts of sustainability research and practice. The readings should provide insight into theory, methods, and substantive knowledge relevant to the dissertation and broader contexts.

Based on the research statement and bibliography, each committee member will prepare relevant questions, which the committee chair will compile into a single examination. The student will answer the questions in written format. The supervisory committee will review the written responses and will assign any of the following designations: pass as written, pass dependent on satisfactorily rewritten or revised questions, retake, and fail.

Students should take the comprehensive examinations within one year of finishing their coursework. Students must petition the Office of Graduate Education to retake the comprehensive exam if they fail, and reexamination must occur no sooner than three (3) months, and no later than one year, from the original exam date. Only one reexamination will be approved.

After passing the comprehensive examination, the student should submit the form with committee signatures to the graduate coordinator who will forward the completed form to the Office of Graduate Education.

Dissertation Prospectus

In careful consultation with the supervisory committee, the candidate will prepare a written dissertation proposal. The format of the proposal will be determined by the supervisory committee but should include an original and meaningful research question, a summary of appropriate theory, methods, data, and knowledge, and a clear and realistic plan for completing the dissertation requirements in a timely fashion. The candidate may elect to submit the dissertation proposal in the format of a dissertation improvement grant proposal to the National Science Foundation or other appropriate funding agencies. An oral examination in defense of the dissertation prospectus is required, and will be scheduled by the supervisory committee no later than six months after a student passes the comprehensive examination. The dissertation proposal defense should occur after successful completion of the comprehensive examinations.

The defense will be public but the committee will also meet privately with the candidate. The student should work on scheduling the defense with the Graduate Coordinator. After the defense is scheduled, the student will receive a defense announcement template from the graduate coordinator where they will provide the dissertation title page, abstract page, list of committee members, and the date, time,

and location of the defense. The graduate coordinator will then send an e-mail notice to students and faculty prior to the defense.

The student needs to complete Part I of the <u>Results of the Doctoral Dissertation Proposal/Prospectus</u> Form and submit it to the examining committee chair for approval. Following approval of the dissertation prospectus, signatures of the committee should be entered in Part II of the form. The completed form should be immediately submitted by the student to the graduate coordinator who will make sure the status is entered in the system.

Advancement to Candidacy

PhD students achieve candidacy status in a letter from the Office of Graduate Education after passing the comprehensive examinations and successfully defending the dissertation prospectus. The Office of Graduate Education sends a letter admitting the student to candidacy after receiving the Results of the Doctoral Dissertation Proposal/Prospectus form reflecting successful approval of the prospectus. If the student fails to advance to candidacy within the time limit set by the Office of Graduate Education policy (see Time Limit section below), the School may recommend withdrawal of the student from the PhD program.

Dissertation

All dissertations are required to meet a certain standard as a recognizable product of ASU. The student's committee, department and the Office of Graduate Education expect to see evidence of careful attention to style and format in the document that the student presents as part of their culminating experience. Please follow the <u>formatting guidelines</u> set by the Office of Graduate Education. For more information on dissertation style, students should consult the *Format Manual* and their committee chair.

The student's supervisory committee will conduct an oral examination in defense of the dissertation. Doctoral dissertation defenses are open to all members of the university community. Oral defenses are to be held on an ASU campus during regular business hours to facilitate student, faculty, and public accessibility. Students are encouraged to defend the dissertation during the fall or spring semester since many faculty members are not on campus over the summer and the Office of Graduate Education has strict rules about committee members being present at the defense. Tips on preparing for the defense can be found online.

The student will continuously work with the entire committee toward a defense date. The entire committee must review the complete draft before a defense date can be determined to ensure the student is ready for the defense step. Reviews of the draft will take a least two weeks but the student should submit the draft at least a month prior to the desired defense date. Failure to provide enough review time to the entire committee may result in the postponement of the defense date or graduation term.

Once the committee agrees on the day and time of the defense, the student needs to reserve a room for the defense. Students may contact the graduate coordinator for room reservation instructions. At least ten working days prior to the oral defense, the student must send a copy of their dissertation for format evaluation to gradformat@asu.edu and schedule their defense through MyASU. Please consult the

Office of Graduate Education's <u>Graduation Deadlines and Procedures</u> Website and the <u>10 Working-Day Calendar</u> on this site.

Pass/Fail Form

Upon Office of Graduate Education approval of the defense date, the entire committee and the graduate coordinator will receive the student's pass/fail form from the Office of Graduate Education by email. The committee chair or co-chair will bring the pass/fail form to the defense. This form is not given to the student until after completing all dissertation and defense requirements. However, the graduate coordinator must have a copy of the pass/fail form after the defense despite the results, since the results must be reported to the Office of Graduate Education within 10 days.

Defense Announcement

After the defense is scheduled with the Office of Graduate Education, the student will receive a defense announcement template from the graduate coordinator where they will provide the dissertation title page, abstract page, list of committee members, and the date, time, and location of the defense. The graduate coordinator will then post the announcement on the SOS website and send an e-mail notice to students and faculty prior to the defense.

The defense announcement is due two weeks before the defense date.

After the Defense

After a student completes the oral defense of the dissertation, he or she will want to take care of final arrangements to ensure completion of the degree.

The graduate coordinator needs a copy of the pass/fail form after the defense. If the student passes with no revisions needed, then the committee will give the signed original pass/fail form to the student. The student then needs to drop off a photocopy of the form or email a PDF of it to the graduate coordinator before taking the original to the Office of Graduate Education.

If a student passes with major or minor revisions, then the committee chair will retain the form (or give it to the graduate coordinator) until all revisions have been submitted and approved. At that time, the chair will sign the original form to signify all requirements have been met. The student must deliver the form in person to the Office of Graduate Education by the deadline (see the Office of Graduate Education's list of <u>deadlines</u>) but needs to send a copy to the graduate coordinator first.

After the defense, the student should ask their chair to email a copy or drop off a photocopy of the pass/fail form to the graduate coordinator immediately. The graduate coordinator will report the results to the Office of Graduate Education. The report of results is due within 10 working days of the defense so that the Office of Graduate Education knows if the form is due (pass with no revisions), revisions are required (for a pass with major or minor revisions) or if the student did not pass the defense. In some cases, the results may be due in less than 10 days after the defense. Refer to the graduation deadlines posted on the Office of Graduate Education's website.

Graduation Exit Session

The graduate coordinator and events coordinator hold an information session each semester for graduate students who plan to graduate soon. These sessions are designed to help students understand all requirements for graduating on time. Students who miss university deadlines may have a delayed graduation term, resulting in having to take an additional course to maintain enrollment.

During the graduation exit session, the graduate coordinator reviews the Office of Graduate Education and SOS policies, procedures and deadlines for each type of degree offered by SOS. The events coordinator reviews procedures for the graduation ceremonies offered by the Office of Graduate Education (commencement) and SOS (convocation).

Students are encouraged to attend the graduation exit session during the semester they intend to graduate. Students may also attend a session prior to their last semester to understand the requirements earlier. It is permissible to attend the graduation exit session multiple times.

Pre-admission Credits

Pre-admission credits are classes applied toward degree completion but were taken prior to admission to the graduate program. These classes can be transfer courses from another institution or classes taken at ASU as a non-degree seeking student or as an admitted graduate student of another program.

Pre-admission credits cannot have been used toward another degree that was awarded. Students can use up to 12 credit hours of pre-admission credits. The School and the Office of Graduate Education must approve the specific courses used for pre-admission credits in order for the student to use them on the plan of study.

Pre-admission credits must meet the following requirements:

- taken at an accredited college or university
- graduate-level
- student must have obtained an "A" or "B" grade or the equivalent in the course(s)
- approved by supervisory committee as part of the plan of study
- completed within three years of being admitted to this graduate program

The taking of courses for graduate credit as an undergraduate or non-degree student does not ensure admission to the program or acceptance of the acquired graduate credits as part of the plan of study.

The Office of Graduate Education has extensive rules regarding pre-admission credits. For complete details, consult the <u>ASU Graduate Policies and Procedures</u> handbook.

Time Limit

All students are expected to meet the program milestones. Failure to meet these milestones could subject students to probation and a request to leave the program. Beyond the School of Sustainability's internal requirements, the Office of Graduate Education stipulates that all doctoral students must complete all program requirements within a ten-year period. The ten-year period starts with initial enrollment in the doctoral program. In addition, the student must take the final oral examination in defense of the dissertation within five years of passing the comprehensive examinations. Any exception must be approved by the supervisory committee and the Office of Graduate Education, and ordinarily involves repetition of the comprehensive examinations. To request an exception, students must submit a Petition to the Office of Graduate Education.

Important Milestones in the Doctoral Plan of Study (entering with a master's degree)

		Fall		
		Attend Fall Welcome activities, Camp T retreat and graduate forums.		
		Meet with faculty mentor or advisor and discuss iPOS and program goals.		
		Successfully complete SOS 510 and SOS 598 Introduction to Research Design and Methods.		
		Attend iPOS workshop and use check sheet to create a draft iPOS.		
		Attend funding workshops; investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.		
		Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.		
ar	Spring			
Ye		Attend welcome back events and graduate forums.		
irst		Establish committee chair before March 1. Discuss program goals and the iPOS draft with the chair.		
Ξ		Submit iPOS and Annual Review survey/ Request for Funding form by March 1.		
		Participate in graduate recruitment event activities (early March).		
		Discuss possible committee members with committee chair and have a working dissertation title by the end of the semester.		
		Complete the Graduate Program Annual Satisfaction survey.		
		Seek out summer internship and research opportunities; organize summer dissertation research plans.		
		Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.		
		Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.		

	5.11
	Fall
_	Attend Fall Welcome activities and graduate forums.
ea	Review iPOS for accuracy; submit updates if needed.
ond Y	Meet with committee chair to discuss dissertation progress, iPOS, program goals and possible committee members.
	By Sept. 1, add confirmed committee members to iPOS and submit for review.
ec	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.
S	Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.

П				
	Spring			
		Attend welcome back events and graduate forums.		
		Review iPOS for accuracy; submit updates if needed.		
ear		Meet with committee early in the semester to discuss comprehensive exam and dissertation prospectus expectations.		
>		Try to finish coursework so the last year can be devoted fully to the dissertation.		
econd		Compile a bibliography and send it to the supervisory committee in preparation for the comprehensive exam.		
S		Submit Annual Review Survey/ Request for Funding form by March 1.		
Š		Participate in graduate recruitment event activities (early March).		
		Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.		
		Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.		
_				
		Fall		
		Attend Fall Welcome activities and graduate forums.		
		Review iPOS for accuracy; submit updates if needed.		
		Meet with committee to determine dates and plans for comprehensive exam and dissertation prospectus defense.		
		Pass comprehensive exam. Pass prospectus defense (within 6 months of passing the comprehensive exam). Advance to candidacy (after passing the comp and prospectus).		
		Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.		
		Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.		
	Spring			
ar		Attend Fall Welcome activities and graduate forums.		
Υe		Review iPOS for accuracy; submit updates if needed.		
Third		Meet with committee to determine early in the semester to discuss dissertation progress and determine defense date.		
<u></u>		Attend graduation exit session to review procedures for the defense and graduating on time.		
		Apply for graduation by Feb. 15.		
		Submit Annual Review Survey by March 1.		
		Participate in graduate recruitment event activities (early March).		
		Complete the Graduate Program Annual Satisfaction survey.		
		Schedule defense and submit final draft to gradformat@asu.edu ; follow Office of Graduate Education deadlines.		

Defend. After defense, submit required forms, paper revisions to committee (if required), final

If participating in graduation ceremonies, respond to emails from the SOS events coordinator. Complete alumni survey (sent by the SOS employer relations and career services specialist).

paper to gradformat@asu.edu and submit format approved paper to ProQuest.

Last Updated: 7/15/13 – draft revision state

Important Milestones in the Doctoral Plan of Study (entering with a bachelor's degree)

	Fall			
	Fall			
	Attend orientation activities, Camp T retreat and graduate forums.			
	Meet with faculty mentor or advisor and discuss iPOS and program goals.			
	Successfully complete SOS 510 and SOS 598 Introduction to Research Design and Methods.			
	Attend iPOS workshop and use check sheet to create a draft iPOS.			
	Attend funding workshops; investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.			
	Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.			
2	Spring			
ב	Attend welcome back events and graduate forums.			
LSI	Meet with faculty mentor or advisor to continue discussion iPOS and program goals. Discuss choosing a faculty advisor (committee chair).			
L	Attend iPOS workshop and use check sheet to create a draft iPOS.			
	Submit Annual Review survey/ Request for Funding form by March 1.			
	Participate in graduate recruitment event activities (early March).			
	Complete the Graduate Program Annual Satisfaction survey.			
	Seek out summer internship and research opportunities; organize summer dissertation research plans.			
	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.			
	Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.			
	Fall			
_ 0	Attend Fall Welcome activities and graduate forums.			
cona re	Meet with faculty mentor or advisor to continue discussion iPOS and program goals. Discuss choosing a faculty advisor (committee chair).			
	Attend iPOS workshop and use check sheet to create a draft iPOS.			
2	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.			
ח ח	Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.			

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	Attend welcome back events and graduate forums.
	Establish committee chair before March 1. Discuss program goals and the iPOS draft with the chair.
	Submit iPOS and Annual Review survey/ Request for Funding form by March 1.
	Participate in graduate recruitment event activities (early March).
	Complete the Graduate Program Annual Satisfaction survey.
Second	Discuss possible committee members with committee chair and have a working dissertation title by the end of the semester.
	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.
	Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.
	Fall
	Attend Fall Welcome activities and graduate forums.
	Review iPOS for accuracy; submit updates if needed.
	Meet with committee chair to discuss dissertation progress, iPOS, program goals and possible committee members.
	By Sept. 1, add confirmed committee members to iPOS and submit for review.
	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.
	Seek and plan professional and academic development experiences: conferences, workshops, and publication opportunities to disseminate original research.
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ᄂ	Try to finish coursework so the last year can be devoted fully to the dissertation.
	Compile a bibliography and send it to the supervisory committee in preparation for the comprehensive exam.
	Submit Annual Review Survey/ Request for Funding form by March 1.
	Participate in graduate recruitment event activities (early March).
	Complete the Graduate Program Annual Satisfaction survey.
	Investigate and apply for grant, fellowship and funding opportunities outside of SOS and ASU.

Master's in Passing: submit portfolio to committee and complete requirements by end of the

Seek and plan professional and academic development experiences: conferences, workshops,

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and publication opportunities to disseminate original research.

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	Fall			
	Attend Fall Welcome activities and graduate forums.			
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	Meet with committee to determine dates and plans for comprehensive exam and dissertation prospectus defense.			
	Pass comprehensive exam. Pass prospectus defense (within 6 months of passing the comprehensive exam). Advance to candidacy (after passing the comp and prospectus).			
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oartn	Meet with committee to determine early in the semester to discuss dissertation progress and determine defense date.			
-	Attend graduation exit session to review procedures for the defense and graduating on time.			
	Apply for graduation by Feb. 15.			
	Submit Annual Review Survey by March 1.			
	Participate in graduate recruitment event activities (early March).			
	Complete the Graduate Program Annual Satisfaction survey.			
	Schedule defense and submit final draft to gradformat@asu.edu ; follow Office of Graduate Education deadlines.			
	Defend. After defense, submit required forms, paper revisions to committee (if required), final paper to gradformat@asu.edu and submit format approved paper to ProQuest.			
	Complete alumni survey (sent by the SOS employer relations and career services specialist).			

Satisfactory Academic Progress Policy

Academic excellence is expected of students doing graduate work. Failure to adhere to the policies below may result in academic probation or a recommendation to the Office of Graduate Education for withdrawal from the degree program.

The following policies pertain to doctoral and master's programs:

- Minimum GPA: To be eligible for a degree, a graduate student must achieve a grade-point average of 3.25 or better in all courses numbered 500 and above, and in all work specifically included in the plan of study. Two different grade-point averages are computed: 1) the overall graduate grade-point average in all courses numbered 500 or higher that appear on the transcript, and 2) the grade-point average in all courses that appear on the plan of study. Students must also maintain a grade-point average of 3.00 or better in all post-baccalaureate courses at ASU.
- Incomplete Grades: Incompletes are given at the discretion of the instructor of a course and should not be expected. Students granted an incomplete should complete a contract with the instructor outlining the work required and the timeline for completion. The timeline cannot exceed one calendar year. Once coursework has been fulfilled, a grade will be assigned. If the student does not complete coursework within the period stipulated by the instructor, the student may receive an unsatisfactory or failing grade for the course. In the case that the professor gives the student the full calendar year within which to complete the course, and the course is not complete within that time, the incomplete will become permanent and the student will have to re-take the course if it is a required course. The School of Sustainability permits only two incompletes on a student's transcript at any time.
- <u>Individual Course Grades</u>: A grade of C is not allowed on any courses within a student's plan of study. If a student receives a C, he or she must re-take the course or seek approval from the Graduate Committee to remove the course from the plan of study.

The following policies pertain to the master's programs only:

- <u>Time Limit for Submitting a Proposal for the Thesis</u>: Master's students should submit their thesis proposal before the start of their third semester, but no later than one full semester before the thesis defense.
- <u>Time Limit for Completing the Master's Degree</u>: Students should take no more than three years to complete the master's program.

The following policies pertain to the doctoral program only:

- <u>Time Limit for Passing Comprehensive Exam</u>: Students should take the comprehensive exam within one year of finishing their coursework.
- <u>Retaking the Comprehensive Exam</u>: Students must petition the Office of Graduate Education to retake the comprehensive exam, and reexamination must

occur no sooner than three months and no later than one year from the original exam date. Only one reexamination will be approved.

- <u>Time Limit for Defending the Dissertation Prospectus</u>: PhD students should defend the dissertation prospectus within six months of passing the comprehensive exam.
- <u>Time Limit for Completing the Doctoral Degree</u>: Doctoral students are expected to meet the School of Sustainability program milestones. Failure to do so may result in probation (see below). The Office of Graduate Education requires doctoral students to complete all program requirements within a ten-year period. The ten-year period starts with initial enrollment in the doctoral program. In addition, the student must take the final oral examination in defense of the dissertation within five years of passing the comprehensive examinations. The defense of the dissertation must take place at least 6 months after the student is advanced to candidacy.

Grades

The final passing grade for Research (SOS 592, 792), Thesis (SOS 599), Applied Project (SOS 592), Practicum (SOS 580), Reading and Conference (SOS 590, 790), and Dissertation (SOS 799) is Y (satisfactory). No grade (Z or Y) is given for continuing registration (SOS 595, 795). Reading and Conference (SOS 590, 790) may be taken for a letter grade if approved by the instructor.

Performance and Annual Review

To ensure that students complete their degrees in a timely manner, get the most out of their experience at SOS, and meet requirements of the degree and School, the Graduate Committee will review student progress annually. Students who are not making satisfactory progress may be dismissed from the program, according to university regulations.

Annual Review

Annual reviews will be conducted in March of each year. The Graduate Committee and the student's faculty advisor will review the following documents when assessing students' progress:

- Check Sheet (provided by the graduate coordinator)
- Transcript (provided by the graduate coordinator)
- Comments (provided by SOS faculty)
- Updated CV or resume (provided by the student by March 1st)
- Completed Annual Review Survey (provided by the student by March 1st)

The student's faculty advisor will provide to each student, in writing, the results of the annual review.

Probation Policy

A student may be placed on academic probation if:

- 1. The student's GPA in all courses numbered 500 and above and in all work specifically included in the plan of study falls below a 3.25;
- 2. The student's overall GPA for all post-baccalaureate courses taken at ASU falls below 3.00;
- 3. The student receives a C, D, or E, in a course on their plan of study; or
- 4. The student fails to complete the program within specified time guidelines and does not meet milestones specified in the graduate handbook.

Students will be notified by mail when first placed on probation and will be required to complete a Probation Agreement with their faculty advisor or the Graduate Committee. Students on probation must meet monthly with their faculty advisor or the Graduate Committee member handling their probation agreement to ensure satisfactory progression. A student placed on probation will remain on probation until performance improves and requirements have been met. Students have one semester to advance to good standing before termination is considered. The Graduate Committee will notify the student in writing when he or she advances to good standing.

A student may be recommended for withdrawal from the graduate program if:

1. The student is on academic probation because his or her GPA has fallen below 3.25 in the approved plan of study or 3.00 for all post-baccalaureate courses taken at ASU, and the student fails to bring the GPA to required levels by the time the next nine credit hours are completed (continuing registration, research, and thesis/dissertation hours cannot be included in these nine hours);

- 2. The student receives a C or lower grade while on academic probation for any reason;
- 3. The student fails to meet milestones specified in the graduate handbook; or
- 4. The student fails to meet conditions stipulated in their Probation Agreement.

Students will be notified by mail if they are being recommended for withdrawal from the program.

A student may appeal any action concerning academic probation and withdrawal by petitioning the Graduate Committee within 10 business days, using the petition form found on the Graduate Community Blackboard site. Approval of petitions is not guaranteed.

Application for Graduation

Students should apply for graduation during the semester of planned graduation and no later than the date specified in the most current version of the Office of Graduate Education's Graduation Deadlines and Procedures.

The Graduate Application for Graduation is through MyASU. Additional instructions on applying for graduation are online.

Tuition and Fees

Students can find information on <u>tuition and fees</u> online. Currently, the School of Sustainability does not have a program fee for the MA, MS, or PhD in Sustainability, and uses general graduate tuition and fee rates for courses with the SOS prefix.

Financial Support

Students seeking financial support should ask the graduate coordinator and faculty advisor about available research and teaching assistant opportunities. SOS will assist students in seeking financial support opportunities, but admittance into and continuation within the program is not a guarantee of funding.

Students should also visit the Office of Graduate Education's website, the SOS Graduate Community blackboard site, and other links for student funding resources:

- The ASU Division of Graduate Studies Financial Support Office
- National Science Foundation Graduate Research Fellowship Program
- Jacob Javits Fellowships
- <u>U.S. EPA National Center for Environmental Research STAR (Science to Achieve Results) Fellowship for Graduate Environmental Study</u>
- National Institutes of Health Grants

- National Research Service Award (NRSA) Research Training Grants and Fellowships
- Cornell University Graduate School Fellowship Database
- Michigan State Information Page on Graduate Scholarships, Fellowships, and Loans
- Federal Student Aid (Student Loans)
- Working at ASU

Facilities

ASU has a large and diverse graduate student body. More than 12,000 students from 140 countries choose ASU to pursue their graduate degrees. The university has excellent library and laboratory facilities, as well as outstanding computing infrastructure, all of which foster a stimulating and supportive environment for graduate education and research.

The School of Sustainability is located in <u>Wrigley Hall (WGHL)</u>. Of particular interest to graduate students is the second-floor Synthesis Center, which is available to provide individual and collaborative work space to students in the SOS graduate program. There is wireless access throughout the building and a data lab with computers and printers on the second floor that is available to SOS graduate students.

Access

Graduate students who have been admitted may request 24-hour access to the second and third floors.

Reserving Conference Rooms

Graduate students may reserve the second floor conference room (WGHL 211). Reservation requests should be made to the fourth-floor receptionist.

Locker Policy

Lockers are available in the Synthesis Center on a first come, first served basis. Students will need to bring their own locks and if they are using a locker on a regular basis, they should let the graduate coordinator know which locker number they are using.

Writing Help for Graduate Students

Kathryn Kyle, the School's writing instructor and tutor, helps graduate students improve their writing skills. Individual tutoring is available M-F by appointment, and a one-credit writing seminar is offered each semester. For appointments, please email Kathryn at kkyle@asu.edu or call her at 965-5704. Online writing resources are available in the graduate-student section of the SOS website.

SOS Travel Grants

The School of Sustainability supports limited SOS graduate student travel to support thesis/dissertation research and to attend sustainability-related conferences and other professional-development opportunities (workshops, seminars, lectures, expos, etc.). More information can be found on the travel-grant application on the SOS Graduate Student Community Blackboard site.

SOS Faculty

A list of <u>School of Sustainability faculty</u> and ASU <u>Sustainability Scientists and Scholars</u> can be found online.

SOS Students

A list of current **School of Sustainability students** can be found online.

University Contacts

	Area Code (480)
ASU Switchboard	965-9011
Bookstore	965-3191
Campus Health Services	965-3346
Career Services	965-2350
Counseling and Consultation	965-6146
Disability Resource Center (DRC)	965-1234
Office of Graduate Education – Admissions	965-6113
Graduate and Professional Student Association	727-9870
Graduation Office (Registrar)	965-3256
International Student Office	965-7451
Meal Plans	965-3463
Parking and Transit Services	965-6406
Public Events (Gammage)	965-5062
Records (Academic)	965-3124
Residency	965-7712
Residential Life	965-3515
Scholarship Office	965-4845
Student Accounts	965-6301
Student Employment	965-5186
Student Financial Assistance	965-3355
Student Recreation Complex	965-8900
Sun Card Office	965-2273
Sun Devil Ticket Office	727-0000
Testing Services, University	965-7146
<u>University Technology Office</u>	965-6500