ASU School of Complex Adaptive Systems
Arizona State University

ASU Online
Arizona State University

Master of Science
Program Handbook
2025-2026

School of Complex Adaptive Systems
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Welcome!

Welcome to the School of Complex Adaptive Systems at Arizona State University. Many phenomena of critical relevance to human society are dynamic systems that change over individual and evolutionary time scales in response to the social and natural environment. That is, they are complex adaptive systems (CAS). As a consequence, life and societies share special properties and processes like *near-decomposability*, *nested hierarchies*, *scale-free networks*, *self-organized criticality*, *non-linear causality*, and *emergence* that are inherent in CAS. The spread of epidemics, evolution of species, ecological impacts of urban growth, pathways of gene regulatory networks, ecological impacts of urban growth, firing of neurons in our brains, dynamics of economies, and human drivers of climate change all involve CAS.

Human societies have made the modern world more complex than ever before, with nearly 8 billion individuals, living in urban centers of millions of inhabitants, divided into innumerable social and economic roles, and organized into hierarchies many levels deep. As a result, earth's biophysical systems and human society are increasingly and more tightly interlinked in a web of dynamic interactions that spans the globe, and which can propagate and amplify cascades of unexpected and undesirable consequences. Without a better understanding of the non-linearities and unexpected, emergent properties of CAS, we face growing uncertainty about the future of the complex socio-ecological systems in which we live.

To respond to this global challenge confronting humanity's future, ASU has created unique, transdisciplinary educational programs in complex adaptive systems science. Our goal is to provide you with the education and experience in the concepts and advanced methods needed for approaching diverse phenomena in life, society, and technology as CAS. These educational programs are tightly integrated with diverse, university-wide research on CAS at Arizona State University, and emphasize the value of a CAS perspective to giving science, policy, and professional practice better insight and a more active role in seeking solutions to a broad array of critical issues facing us today.

We expect that graduates from the program will become leaders who transform the ways in which we carry out research, conduct business, design buildings and products, run governments, provide healthcare, manufacture goods, grow food, and educate future generations. We welcome you to this first of its kind school and wish you success in its educational programs and in your career after graduation.

Welcome to Arizona State University!

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

https://www.asu.edu/about/charter-mission-and-values

Land Acknowledgement

The School of Complex Adaptive Systems acknowledges the twenty-two Native Nations that have inhabited this land for centuries. Arizona State University's four campuses are located in the Salt River Valley on ancestral territories of Indigenous peoples, including the Akimel O'odham (Pima) and Pee Posh (Maricopa) Indian Communities, whose care and keeping of these lands allows us to be here today. The School of Complex Adaptive Systems acknowledges the sovereignty of these nations and seeks to foster an environment of success and possibility for Native American students and patrons. We are advocates for the incorporation of Indigenous knowledge systems and research methodologies.

Student Responsibilities: Diversity and Inclusion

ASU is committed to building excellence, enhancing access to exemplary education, and having an impact on our community, state, nation and the world. Doing this requires our faculty, staff, and students to be diverse so that we learn from the broadest perspectives, and engage in the advancement of knowledge with the most inclusive understanding of the issues we address through our scholarly activities.

Diversity is defined in terms of representation and inclusion. Representation reflects the extent to which our students, staff, faculty, and administrators proportionately reflect the regional and national populations served by our public institution. Inclusion encompasses empowerment and amplifying voices among all members of the university community in the areas of scholarship, teaching, learning, and governance. Both are integral to how we ensure a just and equitable environment for everyone who is part of it, and one that is not undermined by bias, prejudice, harassment, or other forms of discriminatory attitudes and behaviors.

As a result, diversity is not only measured by race, ethnicity, country of origin, and gender, but also includes cultural identity, disability, gender identity, intellectual perspective, national origin, physical and mental abilities, religion, sexual orientation, socioeconomic background, veteran experience, and age. These aspects of identity belong to all members of our community and make us richer.

It is imperative that students treat each other and those they interact with, including instructors, faculty, and staff, with respect, kindness, and dignity. Discrimination will not be tolerated.

Resources for exploring diversity and inclusion at ASU are included below. For additional information on discrimination, harassment, and abuse, including what to do if you experience these, the ASU has Office of Inclusion and Community Engagement has additional resources, including information about ways to report your concern, such as the ASU Hotline, Incident Report Form, and a Student Advocate you can talk with about your situation.

- To Be Welcoming implicit bias classes from ASU/Starbucks Global Academy (30-60 mins each)

Purpose of the Handbook

This handbook serves as an initial resource for answers to common questions; however, students are also encouraged to consult with their advisor. The primary reference for graduate students on rules and regulations is the Arizona State University (ASU) Academic Catalog. Each student should become familiar with the Academic Catalog and the ASU Graduate College website and policies. The policies listed in this handbook are from ASU Graduate College, the College of Global Futures, and the School of Complex Adaptive Systems.
The handbook is updated annually and is also on the website, SCAS.ASU.EDU

Program Administration and Contacts

The Directors of the School of Complex Adaptive Systems (SCAS) are the representatives to the administration and are responsible for implementing university policies. Although the Directors have final authority on many issues, students are encouraged to consult with program advisors first about procedures and policies.

Manfred Laubichler
Global Futures Professor
President's Professor of Theoretical Biology and History of Biology
Director, School of Complex Adaptive Systems
Director, Decision Theater
Manfred.Laubichler@asu.edu

Michael Barton
Associate Director of Academic Programs for SCAS
Professor, School of Complex Adaptive Systems
Michael.Barton@asu.edu

Mary Kivioja
Manager of SCAS Graduate Programs
Academic Advisor
MKivioja@asu.edu or cassgrad@asu.edu
(480)727-0478

General SCAS Questions: complexity@asu.edu

College of Global Futures Contacts

- General: CGF@asu.edu
- Scholarships: CGFScholarships@asu.edu
- Career Services: CGFCareerServices@asu.edu
- Graduation: CGFGraduation@asu.edu

ASU Contacts

The below contacts can provide assistance based on your needs.

ASU Online Contact	General Inquiries	asuonline@asu.edu	480-884-1525
ASU Online Enrollment	Help with admissions, Applications, Enrolling in courses	asuonline@asu.edu	1-866-277-6589
Graduate Admissions	Applications, Transcripts, Withdrawal Requests	gograd@asu.edu	480-965-6113
Graduate College	Policies, Procedures, iPOS, Graduate Programs	grad-gps@asu.edu	480-965-3521
Registrar's Office	Registration, Citizen Status Verification, Enrollment Verification	registrar@asu.edu	480-965-3124
	Official Transcripts and Name Changes	academicfiles@asu.edu	480-965-7276
	Residency Classification	residency@asu.edu	480-965-3256
	Applying for graduation and diplomas	graduation@asu.edu	480-965-3256
Student Business Services	Student account services: tuition, billing, refunds, receipt and payment processing, support for past due accounts	sbs@asu.edu	1-855-278-5080

Faculty in School of Complex Adaptive Systems

Current faculty are listed on the SCAS (https://scas.asu.edu/people/faculty/) website. Faculty interests and expertise are summarized on the SCAS website. You may be able to find more details about SCAS faculty in the ASU iSearch online directory (https://isearch.asu.edu/asu-people/)

Student Success Teams

Enrollment Counselors:

Finding the best program for your goals, application assistance, guidance and updates throughout the admissions process, and preparing you for your first day of classes. Request Info at Become a student | Admission

Academic Advisors:
Course scheduling, requirements for majors and certificates, staying on track to graduate, academic policies, transferable credits, and questions or concerns about the program. Students are assigned an academic advisor when accepted into the program. To contact your advisor, email cassgrad@asu.edu or mkivioja@asu.edu.

Success Coach:
Helps identify and overcome obstacles, navigate ASU resources, short-term and long-term planning, strengths-based approach, and personal connection to ASU. To connect with your coach, visit: My ASU > eAdvisor > Success Coaching

Your new ASU email address

It is important that students check the ASU email account at least once per week, so they do not miss important notices. Arizona State University, CGF, and SCAS conduct their business via ASU email only. However, students may forward their ASU email to another preferred account if this is a more convenient way to follow ASU email.

Graduate students in the School of Complex Adaptive Systems are added to an email list so that they receive important information about school deadlines, scholarships, jobs, workshops, and events. Students who are not receiving emails should contact their Academic Advisor to be added to the list.

Complexity at ASU

The formal organization of complex adaptive system science at ASU began with the founding of the Center for Social Dynamics and Complexity (CSDC) as an interdisciplinary research center spanning the life, behavioral, and social sciences to build scientific and educational capacity in Arizona in a dominant research area of 21st century complexity science. This was rapidly followed by the establishment of additional complexity-related centers and research groups that established ASU as a leader in developing and applying theory and methods of CAS science–especially for social and biological systems. These organizations were united under the umbrella of the Global Biosocial Complexity Initiative in 2018 (https://complexity.asu.edu).

In 2020, ASU established the Global Futures Laboratory (https://globalfutures.asu.edu) and College of Global Futures (https://collegeofglobalfutures.asu.edu), housing three schools: the School of Sustainability, the School for Future Innovations and Society, and the School for Complex Adaptive Systems. These three schools work collaboratively through a collective shared mission of ensuring a livable planet. The School of Complex Adaptive Systems was established within the College of Global Futures due to the unique interdisciplinary nature of complexity coupled with its fundamental mission to build a work that creates conditions conducive to life.

For more information about the College of Global Future, visit: https://collegeofglobalfutures.asu.edu/

Mission

The mission of the School of Complex Adaptive Systems (SCAS) is to advance and disseminate fundamental knowledge about the structure and function of natural, social, and technological complex systems. It will develop solutions and suggest interventions that enhance resilience and stability of some of the most critical aspects of our shared global futures, with a focus on sustainability, health, economics, technology, social stability, and innovation. SCAS focuses on complex systems science as a common language and framework, a way of thinking and knowing, and as a set of skills required to address problems that transcend traditional disciplinary boundaries. SCAS promotes excellence in education and research in an integrated academic structure without unnecessary internal disciplinary barriers and by wide-ranging international collaborations. These features of SCAS are designed to reflect the fundamental nature of complex adaptive systems, allowing for strategic and timely responses with a focus on global challenges and collaborative solutions.

Goals

1. The School of Complex Adaptive Systems is to conduct fundamental and use-inspired research directed at finding adaptable, sustainable solutions to significant environmental and social problems of global interest by using quantitative and qualitative methods, combining multiscale, empirically grounded research studies and data with formal analysis and modeling.

2. The School of Complex Adaptive Systems will integrate research approaches that focus on multi-dimensional feedback and evolutionary processes that characterize complex adaptive systems. By emphasizing interconnections between system components and systems at different scales it will focus on solutions and designs for human well-being and a more sustainable world.

3. The School of Complex Adaptive Systems will combine analytic and design approaches by using techniques from engineering such as prototyping, and further develop practices of participatory problem solutions.

4. The School of Complex Adaptive Systems will produce a next generation of critical and analytical thinkers capable of envisioning, understanding, and solving complex social, economic, and biological problems in the context of Global Futures.

5. The School of Complex Adaptive Systems aims to produce a new generation of professionals who can use complex systems concepts and methods to bridge across disciplines and knowledge domains in order to address future challenges that span multiple dimensions of a complex world. The School will work jointly with other academic units to train complex systems scientists with the knowledge to collaborate with domain specialists who need to apply complex systems approaches to specific problem areas. It will also provide educational opportunities to next generation scholars in other fields who desire to add expertise in complex systems approaches to their disciplinary course of study.

6. The School of Complex Adaptive Systems will develop academic programs in complex adaptive systems analysis that benefit from synergistic activities found only in an integrated, cross-disciplinary faculty.

7. The School of Complex Adaptive Systems will engage in enhancing public awareness, education, fundamental research, and problem solving focused on dynamic, systemic, and relational approaches to sustainable development and Global Futures. The major global challenges facing us today are complex, defy a simple understanding, and require a complex systems approach to find robust ways to navigate, manage, and steer complex systems towards pathways to solutions.

Complex Adaptive System Science Overview

In keeping with the goals of The New American University, the College of Global Futures is committed to establishing ASU as a global center for interdisciplinary research, discovery and development. The School of Complex Adaptive Systems offers an online Master of Science (MS) and PhD in Complex Systems Science Degree, a PhD Certificate and PhD Concentration. Students selecting the Certificate or Concentrations must be enrolled or be accepted into a doctoral degree program at Arizona State University.

Complex Systems Science (Master of Science) - Online

The interdisciplinary Master of Science in Complex Systems Science program will assist students in developing skills in theoretical foundations, modeling, problem solving, critical thinking, and the importance of direct experience through research or related activities in the context of complex systems science. Complex Adaptive systems science focuses on the behavior and consequences of highly interactive and networked systems by investigating the common principles underlying these diverse structures. The program will focus on the general theoretical foundations, modeling methods and a broad overview of application domains. Complex systems are at the core of all real-world challenges ranging from health, sustainability, engineering, economics, urban and social systems and basic sciences. Expertise in complexity will allow graduates to contribute to practical and theoretical solutions in a vast number of areas thus fitting with ASU's charter to advance research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves. Students will engage in different learning modalities including practical exercise and guided research projects.

Program Content

Program Curricula and Course Information

Complex Systems Science (Master of Science) – online only

A total of 30 credit hours are required to complete this program: 24 credit hours of coursework and a 6 credit hour applied project.

The required foundational and core methods courses provide all students in the program with a common understanding of key theory and concepts of complex adaptive system science (CASS), and expertise in the advanced methods needed to apply CASS approaches in diverse fields.

Building on this fundamental base, students can then gain in depth knowledge of how CASS approaches can be used in specific research and applied domains. Finally, students will have the opportunity to design and carry out a project that utilizes their knowledge of CASS in real-world context through an applied project, guided by a faculty mentor.

Required Foundation Courses: must take all three (9 credit hours)

- CAS 501 Fundamentals of Complex Systems Science: Evolution (3)
- CAS 502 Fundamentals of Complex Systems Science: Computation (3)
- CAS 503 Fundamentals of Complex Systems Science: Collectives (3)

Required Core Methods Courses: choose at least two (6 credit hours)

- CAS 520 Methods for Complex Systems Science: Agent Based Modeling (3)
- CAS 521 Methods for Complex Systems Science: Network Analysis (3)
- CAS 522 Methods for Complex Systems Science: Dynamical Systems (3)
- CAS 523 Methods for Complex Systems Science: Statistics and Dimensionality Reduction (3)

Elective Courses: choose at least three (9 credit hours)

- CAS 540 Complex Socio-Ecological Systems (3)
- CAS 541 Complex Urban Systems (3)
- CAS 542 Sustainability as a Problem of Complexity (3)
- CAS 543 Complexity Economics (3)
- CAS 544 Innovation in Complex Systems (3)
- CAS 545 Disease as a Complex System (3)
- CAS 546 Bio-Inspired AI & Optimization (3)
- CAS 598 Topic: Sense-Making Complexity (3)
- CAS 598 Topic: Applied Complexity in Carbon Management (3)
- CAS 598 Topic: Computational Methods for Complexity Science (1)
- CAS 598 Topic: Alternate Ecologies & Economies (3)
- CAS 598 Topic: Quantitative Complexity - Theory and Practice (3)

*Can include methods courses beyond the required two.

Applied Project (6 credit hours)

- CAS 593 Applied Project (6)

Course Descriptions

CAS 501: Fundamentals of Complex Systems Science- Evolution | 3 Credits
The enormous diversity of biological, social and technological systems is the product of evolution. As Darwin put it poetically: "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been and are being evolved." In short, complexity is the product of evolutionary processes. This, in turn, implies that understanding complexity requires us to understand its evolutionary origins. This course is a comprehensive introduction to the evolutionary history of complex systems and the principles and mechanisms that guide this dynamic. Covers the consequences of evolutionary history of complex systems, such as vulnerability to failure or limits of the potential of these systems to change and adapt. Faculty: Manfred Laubichler

CAS 502: Fundamentals of Complex Systems Science- Computation | 3 Credits
Most if not all fields of research rely on computers and an increasing number of researchers employ computational methods to collect or analyze data. Coding is found more and more often as a tool in the researcher's toolbox. This is especially true when modeling and studying complex systems. However, knowing how to program is just one piece of the puzzle. To develop robust computational solutions that are sustainable, maintainable and trustworthy requires additional skills and knowledge. This course gives an overview of technologies, best practices and processes that every complexity researcher should be aware of and employ in their programming work. Students learn how to develop maintainable code, get hands-on experiences with tools that can help increase code quality and become familiar with software development best practices. Faculty: Damerow, Julia

CAS 503: Fundamentals of Complex Systems Science- Collectives | 3 Credits
From neurons in a brain to fish in a school to people in an economy, collectives are all around us. These are complex systems in which we understand in some detail how the individual components behave and interact, but the behavior we are interested in is at the larger scale of the aggregate. The behavior of systems like these is challenging to predict and understand largely due to the sheer number of interacting components, as well as the intuitive way that contributions from individuals scale up to have large collective effects. Complex systems science has developed an array of conceptual tools to help understand collective behavior. Explores these foundational concepts, including emergence, scaling laws, dynamical modes and coarse-graining. Uses these tools to de-mystify powerful aggregate-scale effects, from impressive feats of swarm intelligence to potentially harmful instabilities and hysteresis.
Faculty: Bryan Daniels

CAS 520: Methods for Complex Systems Science- Agent Based Modeling | 3 Credits
Agent-based modeling is a method to study the macro-level consequences of micro-level interactions of agents representing individuals, households, firms or other types of actors. Agent-based modeling is used to study the dynamics of complex adaptive systems across different domain areas. Covers the basics of agent-based modeling including programming computer simulations and how this method is used to study complex adaptive systems in different application areas. Examines the method for scientific research, especially the various ways of doing model analysis. Students perform individual assignments.
Faculty: Sean Bergin

CAS 521: Methods for Complex Systems Science- Network Analysis | 3 Credits
Network science within the framework of complex adaptive systems. Begins with general introductions to different kinds of networks and their basic network properties. Then progresses to the mathematics and algorithms of network analysis while learning about computational feasibility and the importance of random graph comparisons. Each week students are responsible for readings and a write-up of that week's topics. These write-ups help build toward the final assignment incorporating all topics covered in this class. Upon completion, students should feel confident incorporating networks and their associated complexity into their research and worldview. Faculty: Enrico Borriello

CAS 522: Methods for Complex Systems Science- Dynamical Systems | 3 Credits
Focuses on the mechanisms through which complexity emerges in evolving and dynamical network architectures. Some of the best-known examples include gene expression networks, adaptive ecological networks, and neural networks for cognitive information processing. Complex systems theory deals with dynamical systems with a large number of interacting variables. Therefore, after an introduction to graph and network theory, the course covers the basic concepts of dynamical systems theory: continuous and discrete systems, attractor dynamics, bifurcation, and chaos. After introducing information theory, devoted to the fundamentals, the second part focuses on applications, especially to network dynamics. Students acquire familiarity through the analysis of concrete examples of both deterministic and random dynamics in the form of Boolean networks and random walks. Faculty: Bryan Daniels

CAS 523: Methods for Complex Systems Science- Statistics and Dimensionality Reduction | 3 Credits
Because complex systems involve a large number of interacting components, observational studies of these systems typically generate data sets of high dimension. Examples include the hundreds or thousands of distinct neurons in a brain, genes in a cell, people in a society, firms in an economy, or texts in a corpus. To make sense of such data, a diverse set of data analytic tools has been developed to summarize key properties at the population level (statistics) and characterize predictable lower-dimensional patterns (dimensionality reduction). Provides a guided tour of such tools most relevant to complex adaptive systems. With a solid foundation in inferential statistics, students encounter PCA-type linear projections, nonlinear manifold techniques, topic modeling, clustering methods, network statistics, as well as more abstract foundations for how these methods work and when they fail. Students hone their data skills by applying state-of-the-art open-source software to real-world datasets.
Faculty: Bryan Daniels

CAS 540 Complex Socio-Ecological Systems | 3 Credits
We live in a world that is neither wholly human nor wholly natural. Human decisions and actions combined with biological processes and physical forces transform cities, rural landscapes, ecosystems and biogeography, river systems, coastlines and the atmosphere. By emphasizing the importance of networks and feedback, complexity science is especially helpful in providing insight into the complex interactions between the human and natural components of the socioecological systems that are so critical to our lives and wellbeing. Examines key concepts for understanding socio ecological system dynamics from a complex systems perspective. Explores how methods drawn from complexity science can trace the complex web of feedbacks between social, biological and geophysical processes and help to better understand and plan for change and stability in socio ecological systems. Also looks at how complexity science can help contribute to relevant policy and governance for SES.
Faculty: Sean Bergin

CAS 541: Complex Urban Systems | 3 Credits
Despite occupying only a tiny fraction of the world's area, cities house over half of earth's human population, consume over two thirds of global energy, and emit over 70% of global CO2 emissions. It is estimated that the combined ecological footprint of earth's urban areas already exceeds the entire area of our planet, and still globally 3 million more people migrate to cities every week. Cities are also the global engines of innovation, wealth creation, and production efficiencies. Thus, cities are both drivers of unsustainable behavior and our best hope for innovating sustainable solutions. Examines key concepts for understanding the complexity of urban systems, and explores how methods drawn from complexity science can be applied to urban structures and dynamics to better understand both past and future outcomes. Shows how complexity science might contribute to relevant policy and governance of cities and whether such a contribution is advisable.
Faculty: Shade Shutters

CAS 542: Sustainability as a Problem of Complexity | 3 Credits
Sustainability Challenges are complex challenges. Sustainability as a Problem of Complexity explores in a systematic way the interconnected nature of sustainability challenges and presents a complex systems science based framework for developing sustainability solutions.
Faculty: TBD **course not offered yet*

CAS 543: Complexity Economics | 3 Credits
Complexity economics is the study of economic systems as evolving, complex systems. These systems consist of interacting individuals who perceive their environments, and take actions based on multiple criteria, which in turn affect their environments and the decisions available to other individuals. Complexity economics is not an extension of conventional, neo-classical economic theory and practice, which is based on the concepts of equilibrium, optimization and aggregation. Complexity economics attempts to understand economic phenomena through concepts of evolution, emergence, path dependency and the interdependent relationships between heterogenous individuals whose actions shape their environments. This offers a new basis for theory and practice that better reflects not only real problems and scenarios, but also how individuals make decisions and how those decisions have consequences for both the environment and society.
Faculty: Joffa Applegate

CAS 544: Innovation in Complex Systems | 3 Credits
Innovation is a central property of complex systems. Without innovation there would be no evolution of complex systems. This course will explore the dynamics of innovation in complex systems across a number of different domains. Including biological, social, cultural and technological innovations. It will focus on the common principles and differences guiding innovation dynamics. It will also focus on unintended consequences of innovation, such as cascading effects and innovation traps and investigate why certain systems fail to innovate. Students will be able to identify common features of innovation across complex systems.
Faculty: José Lobo and Manfred Laubichler **course not offered yet*

CAS 545: Disease as a Complex System | 3 Credits
Disease and failure are properties of complex systems. All organisms, groups, societies, technologies, ecosystems and the planetary system are complex systems. Disease can be seen as a failure in complex system function and has, at its root cause, the breakdown of complex regulatory structures that maintain function and facilitate adaptation. Comprehensive introduction into the origins, mechanisms and consequences of disease in a number of complex systems ranging from organisms to the planet and the

technosphere. Explores disease, failure and health of these systems and investigates the underlying complex systems properties that are responsible for these different states. Identifies common features of failure across complex systems.
Faculty: Manfred Laubichler

CAS 546: Bio-Inspired AI & Optimization | 3 Credits
This course is meant to provide a survey of a variety of algorithms for optimization and multiagent control that are inspired by natural systems. Algorithms inspired by biological or physical systems can often be viewed as idealized models of those antecedent systems. Consequently, this class will also explore potential problems (and solutions) in these algorithms that are analogous to fundamental but less well-known issues in the biological and physical systems that inspire them.
Faculty: TBD **course not offered yet*

CAS 598: Sense-Making Complexity | 3 Credits
Students learn to build heterogeneous simulations of real world sociotechnical or environmental situations applying complex adaptive systems concepts as lenses,and rendering them as palpable experiences using multi-modal media techniques. Cases will come from field studies around the world ranging from weather and heatscapes to media infrastructures and cities.
Faculty: Xin Wei Sha

CAS 598: Applied Complexity in Carbon Management | 3 Credits
Climate change is here now, it is severe, and human activities are the cause. Three decades of insufficient climate action and talks of changing the lifestyles of billions of people worldwide make it seem hopeless. On the contrary, climate science tells us that the temperature rise can be halted once emissions reach near zero. Engineers tell us solutions are available to reduce 70% of global emissions. Nevertheless, although we are progressing, the pace is too slow, and we will overshoot the Paris Agreement commitments. We need additional pressure to hasten progress and a system to deal with the overshoot: carbon management. This interdisciplinary course, ¿Applied Complexity in Carbon Management,¿ looks at climate change from the lens of complexity science, simplifying the issue to its bare components. It explores the landscape of climate policy, from historical perspectives to innovative approaches. It introduces carbon management as a deliberate intervention in Earth's carbon cycle, covering negative emission technologies, socio-economic considerations, and ethical questions of intergenerational responsibility. The course tackles carbon accounting frameworks and examines agents of change, power dynamics, and special interests' role in climate action.
Faculty: Stephanie Arcusa

CAS 598: Computational Methods for Complexity Science | 1 Credit
Complexity science relies, like many other fields, heavily on computational methods. Many of the core classes of the graduate degree programs in the School of Complex Adaptive Systems require familiarity with Python and Jupyter Notebooks. This course is specifically designed for incoming students that do not have any programming background. Students will learn the basics of programming with Python, such as basic computation with variables, loops and conditional statements, and functions. At the end of this course, students will be able to read and write short Python programs.
Faculty: Julia Damerow

CAS 598: Alternate Ecologies and Economies | 3 Credits
Infrastructures The sociotechnical systems sustaining our lives, such as finance, the energy grid, and social media have evolved into infrastructures spanning the world. Operating as a pervasive sociotechnical and environmental substrate to life, normally and by design infrastructures lie beyond the reach and attention of most of us whose lives depend on them ¿ until they break down. How can we make sense of, navigate, re-imagine and design infrastructures differently, learning from ecosystems as well as post-digital arts and sciences? This course invites students to design compelling alternatives.
Faculty: Sha Xin Wei

CAS 598: Quantitative Complexity - Theory and Practice | 3 Credits
Complexity pervades our world, but can we quantify it? Is there a universal yardstick to measure the complexity of diverse systems? This course embarks on a journey through various avenues to address these fundamental inquiries, beginning with the motivations that propel the search for complexity metrics. We will investigate quantitative measures such as Shannon's Entropy, Algorithmic Information, and Minimum Description Length. Through readings, discussions, and hands-on Python exercises, you will grapple with the quest for universal quantitative measures of complexity and interrogate the necessity of this pursuit in the first place. Prerequisites: Basic Python programming skills and familiarity with Git version control.
Faculty: Cole Mathis

CAS 593: Applied Project | 6 Credits
The applied project in the complex systems science degree involves the synthesis of materials from foundation, methods and elective courses in the form of a literature review based analysis of a specific real world problem followed by an applied project. It also involves the creation of a portfolio of student accomplishments. The applied project is a modeling and research project in any of the applied or foundational areas of complex systems science. Students will define this project with a faculty mentor and apply a selection of methods covered in the methods courses to a dataset.
Faculty: Student chooses faculty advisor

CAS 593 requires permission to enroll. Students are to identify an SCAS Faculty member to be their Applied Project Advisor. Students should reach out to those faculty and ask that they be their advisor for CAS 593. When confirmed, an email should be sent to Mary Kivioja (mkivioja@asu.edu) showing the faculty approval, term, and session that they plan to take CAS 593. Students will then be manually enrolled into the course.

Course Materials

All course required course material will be listed in the individual course syllabi which students have access to once they are enrolled in a course.

Plan of Study (iPOS)

The interactive plan of study (iPOS) is the student's official contract with their faculty advisor(s), SCAS, and the University. The academic unit's graduate support staff should be the primary contact regarding iPOS and degree requirements. It lists all the classes the student plans to take to complete the degree and indicates who is on the student's supervisory committee. It contains specific degree requirements such

as core and elective coursework, as well as any culminating experience that must be included before it can be approved.

While completing the iPOS, keep in mind that this is a "plan" for completing Program requirements and that changes, most likely, will need to be made in future semesters. The iPOS is completed through the online system called the Interactive Plan of Study accessed through MyASU. Revisions to the iPOS are easily made online and should be made each semester if needed.

You can access your iPOS by visiting: ***My ASU > My Programs > iPOS > Graduate Interactive Plan of Study (iPOS)***

The Graduate College offers many tools to assist you with completing your graduate program. At the link below you will find a few helpful guides that will assist you with using these tools. The link below provides step-by-step instructions on how to submit your iPOS.

https://graduate.asu.edu/current-students/completing-your-degree/how-guides

SCAS requires that students in online programs file an iPOS no later than the end of your first year to ensure a successful journey and order of classes. **A student is not eligible to apply for graduation without an approved iPOS.**

Students should check the iPOS each semester. If you have a change in plans, or if the computer system identifies errors, update your iPOS. To update an iPOS, submit a Course Change request in the my.asu.edu online system. Students can remove courses not taken from the iPOS and/or add courses taken that were not originally listed on the iPOS.

The sample plan of study included in this handbook is intended for informational purposes only. It serves as a general guide to help students understand the typical course sequencing and timeline within the program. Each student's academic journey is unique, and individual plans may vary based on course availability, prior coursework, research interests, and academic progress. Students should consult regularly with their academic program to develop and maintain an individualized plan of study that aligns with their goals, circumstances, and curricular requirements.

Term	Session	Course	Class Nbr	Description	Hours
2022 Spring	A	CAS 503	36460	Fund Cmplx Sys Sci: Collect.	3.00
2022 Spring	B	CAS 501	37533	Fundamentals Cmplx Sys Science	3.00
2022 Spring	B	CAS 521	36461	Methods Complex Sys Science	3.00
2022 Fall	B	CAS 522	91521	Dynamic Mtds Complex Sys Sci	3.00
2023 Spring	B	CAS 520	37533	Agent-Based Modeling	3.00
2023 Fall	A	CAS 523	91606	Methods CMPLX Sys Sci: Stats	3.00
2024 Spring	A	CAS 502	36313	CAS Computation	3.00
2024 Spring	A	CAS 543	36746	Complexity Economics	3.00
2024 Fall	A	CAS 593	87175	Applied Project	3.00
2024 Fall	B	CAS 593	87178	Applied Project	3.00

Admissions and Enrollment

Applicants must register and enroll in courses in the semester they applied to. To change the starting semester, the student must notify their Advisor and request the change through their myASU page. The only opportunity to change the starting semester, without a fee, is before the student is officially accepted into the program.

These are federally established categories, relevant for financial aid and international visa considerations.

	Fall & Spring Semesters	Summer
Full Time	9+ credit hours	3+ credit hours
¾ Time	7-8 credit hours	
Half Time	5-6 credit hours	2 credit hours
Less than half time	1-4 credit hours	1 credit hour

Enrollment Guidelines and Requirements for Graduate Students

It is the student's responsibility to know and regularly check deadlines. The CAS MS offers courses in fall and spring only. Some courses outside of CAS can be taken as an elective and may be offered in summer sessions. Please check the Academic Calendar for important dates and deadlines.

Fall/Spring Session A: first 7.5-week session
Fall/Spring Session B: second 7.5-week session
Fall/Spring Session C: full semester (15 weeks)

Summer Session A: first 6-week session
Summer Session B: second 6-week session
Summer Session A + B: 12-week session
Summer Session C: 8-week session

How to Add a Class

The easiest way to add a class is by signing into My ASU, clicking on the Registration link in your My Classes box, and selecting Add. You may add a class to your schedule up until the drop/add deadline for that class.

Late Registration

Registering for any class after the deadline requires approval from the college or school offering the course and is an exception to university policy. There is no guarantee that a late request will be approved. Please email your advisor for help in requesting a late add.

Policies and procedures for late adds vary by college/school, click here for detailed instructions.
For specific policies and instructions on late registration, visit:

Late Registration Graduate | ASU Students | ASU
Late Registration Global Futures

Maintaining Continuous Enrollment

Graduate students planning to discontinue registration for a semester or more must submit a petition for a leave of absence. This request **must be submitted and approved before the anticipated semester of non-registration**. **Students may request a leave of absence for a maximum of two semesters during their entire program.**

Students can submit a Leave of Absence request via their Interactive Plan of Study (iPOS).

- Go into the iPOS
- Select 'Add Petition' from the drop down menu
- Select 'Leave of Absence'
- Fill out the form
- Submit

Students who do not register for a fall or spring semester without an approved Leave of Absence are considered withdrawn from the university under the assumption that they have decided to discontinue their program. A student with a Graduate College approved leave of absence is not required to pay tuition and/or fees, but in turn, is not permitted to place any demands on university faculty or use any university resources. These resources include university libraries, laboratories, recreation facilities or faculty time.

How to access your courses in Canvas

Canvas is a fully featured learning management system (LMS) designed to facilitate the delivery of instruction. Canvas may be used by ASU instructors to teach all or part of your classes. How instructors use their courses may vary to some extent, but many features will remain consistent across all of your courses.

For example, you can use Canvas to:

- Access course materials (e.g., lectures, videos, reading assignments, etc.)
- Check your grades
- Participate in online discussions or group activities
- Submit assignments
- Take online quizzes/tests
- View course announcements

Canvas can be accessed in your MyASU. It should appear as a small icon near the top of the screen. Once you click on the link it will take you to the Dashboard where your courses should appear.

Below you'll find a series of instructional articles to help get you started with Canvas. Some articles address our custom ASU Canvas environment, while other articles are provided by the Canvas Community (such as: Canvas Student Guides).

NOTE: Guides and documentation found on the Canvas site may vary slightly as features are added or changed. When in doubt, please contact the ASU Experience Center for assistance!

Finances

Cost

Please use the tuition calculator to get an estimate of your costs: Tuition | ASU
Arizona State University reserves the right to increase or modify tuition and fees without prior notice, upon approval by the Arizona Board of Regents or as otherwise consistent with board policy, and to make such modifications applicable to students enrolled at ASU at that time as well as to incoming students. In addition, all tuition amounts and fees are subject to change at any time for correction of errors. Finally, please note that fee amounts billed for any period may be adjusted at a future date.

(ASU and other AZ-based university employees are eligible for tuition reduction. Please check the tuition waiver rules for details.) If you are receiving a tuition waiver from outside sources, please be aware that your waiver may not cover the full amount. Technology, Financial Aid Trust and other mandatory university fees will apply.

Financial Support

Students can apply for financial aid before they apply for admission to the university; however, students must be admitted to a degree-seeking program of study in order to be offered financial aid. See graduate admission information. **Please note that only US students are eligible for loans or teaching and research assistantships however, all students are eligible for scholarships.**

Scholarships, Grants and Fellowships

College of Global Futures also offers scholarships, fellowships, and grants for both current and incoming graduate students. Many scholarship applications are due in spring each year for the following academic year. Specific deadlines can be found on the College of Global Futures Financial Support webpage.

Financial Aid Recipients

Full-time and half-time credit requirements may be different for financial aid disbursement purposes. Please review the Award Disbursement Rules to determine the required enrolled hours needed for financial aid disbursement.

Additional Financial Aid information can be found at https://students.asu.edu/financialaid/apply/graduate

Financial Aid Contact: 855-278-5080 (toll-free)
Financial Aid for International Students: https://students.asu.edu/financialaid/apply/international

Grades

Grade Point Averages

Graduate students must maintain a minimum 3.00-grade point average (GPA) to maintain satisfactory academic progress and to graduate. The minimum 3.00 GPA must be maintained on all GPA's (Plan of Study (iPOS) GPA, Overall Graduate GPA, and Cumulative GPA).

1. The iPOS GPA is calculated on all courses that appear on the student's approved iPOS.
2. The Cumulative ASU GPA represents all courses completed at ASU during the graduate career.
3. The Overall Graduate GPA is calculated on all courses numbered 500 or higher that appear on the transcript.

Transfer credits are not calculated on the iPOS GPA or the Graduate GPA. Courses lower than a "C" cannot appear on the iPOS but will be included when calculating the Graduate GPA. Courses with an "I" grade cannot appear on the iPOS.

Coursework Grades

Graduate-level courses are those numbered 500 or higher. All core courses required by a graduate program must be at least 500-level. Courses with grades of "D", "E", "W", or "I" and audited courses (graded as "X") cannot be included on an iPOS. Courses applied to a previously awarded degree cannot be included on an iPOS.

A grade of "I" (incomplete) is given by the instructor only when a student doing acceptable work is unable to complete a course because of illness or other conditions beyond the student's control. The student and instructor must complete a Request for Grade of Incomplete form if no grade has been reported. The grade of "I" should be granted only when the student can complete the unfinished work with the same instructor. However, an "I" may be completed with an instructor designated by the department chair if the original instructor becomes incapacitated or is not on campus. The student must arrange completion of the course requirements with the instructor.

Students who receive a grade of "I" in graduate courses (500 level or above) have one calendar year to complete the course for a grade. If after one calendar year the student has not completed the courses for a grade, the grade of "I" will become a permanent part of the transcript.
To repeat the course for credit, a student must reregister and pay fees. The grade for the repeated course will appear on the transcript but will not replace the permanent "I."

Graduate students may register to audit one or more courses with the approval of the supervisory committee chair and the consent of the instructor involved. An audited course does not count toward the minimum number of credits required for international students with visa restrictions, students employed as TA/RAs, or students receiving financial assistance. Courses taken for audit do not satisfy the Graduate College continuous enrollment policy.

Grade Appeal and Academic Grievance Process

The College of Global Futures Grade Appeal and Academic Grievance Process follows the university policy for grade appeals. Outlined on the college's website are the steps a student can take if they wish to appeal a grade or the results of a defense or exam. This process only applies to courses and programs offered through the College of Global Futures. If the course or program is offered through another unit, the student will need to reference that unit's process. Students can find information about which unit offers a course by clicking "Full Class Details" on the course in the course search tool and the unit is listed next to "Offered by".

The process should be pursued in the semester following the issuance of the grade in dispute (but before commencement) to protect the student from retaliation. Students who believe they are victims of retaliation should immediately contact the Associate Dean of the college.

Academic Record Changes

A student may apply for an academic record change for a prior semester when an application for a grade change is inappropriate to correct the student's records. An academic record change includes adding or dropping a class, changing grade options, or adjusting semester hours.

An academic record change is subject to the approval of:
1. the class instructor
2. the chair of the department offering the course, AND
3. the standards committee of the college offering the course.

Repeating ASU Courses

Graduate students (degree or non-degree) may retake any course at ASU; however, all grades are part of the student's permanent academic record and remain on the student transcript as well as in all GPA calculations.

Progress in Your Program

Satisfactory Progress

Students are responsible for reading and following satisfactory academic progress policies for the ASU Graduate College, SCAS, and the Biomimicry Center

Graduate College Satisfactory Academic Progress Policy

All graduate students are expected to make systematic progress toward completion of their degree. This progress includes satisfying the conditions listed below and achieving the benchmarks and requirements set by the individual Degree Programs. If a student fails to satisfy the requirements of their Degree Program and/or the benchmarks outlined below, the student may be dismissed from their Program based on the Academic Unit's recommendation to the Graduate College. The Graduate College Dean makes the final determination.

1. Maintain a minimum of 3.00 GPA on both the iPOS and Graduate GPAs. If either GPA falls below 3.00, the student must develop, with their advisor, an academic performance improvement plan that includes the conditions and timeframes for making satisfactory academic progress in their Degree Program.

2. Satisfy all requirements of the Graduate Degree Program.
    a. The iPOS GPA is calculated from all courses that appear on the student's approved iPOS.
    b. The Graduate GPA is calculated from all courses numbered 500 or higher that appear on the transcript, with the exception of courses counted toward an undergraduate degree at ASU (unless shared with a master's degree in an approved bachelor's/Master's Degree Program); and courses identified as deficiencies in the original letter of admission. The student is considered to be on academic probation until the conditions specified in the academic performance improvement plan are met and both GPAs are above 3.00.

3. Complete the student's Graduate Degree Program prior to the maximum time limit for graduation (six years for master's; ten years for doctorate).

4. Successfully complete the culminating experience of a dissertation, capstone MS project.

Graduate students must enroll for courses in EACH Fall and Spring semester (does not include Summer) until they graduate. Further, students must be enrolled in courses that meet the Program requirements. Failing to do so without a Graduate College-approved Request to Maintain Continuous Enrollment (LOA) is considered a lack of academic progress and may lead to automatic dismissal of the student from the Degree Program. Persistent "w" and "I" grades during multiple semesters on an iPOS or transcript may reflect lack of academic progress. If the student fails to enroll for a semester, the Graduate College automatically drops the student from the Program and University. The student would have to reapply, pay the application fees, and be readmitted to continue the Degree Program. There are no special considerations for the new application – the application for readmission is evaluated against the pool of current applications for that year and readmission is NOT guaranteed.

Full Graduate College policies and procedures can be found at:
https://graduate.asu.edu/sites/default/files/asu-graduate-policies-and-procedures_032019.pdf

Students who are not able to fulfill a requirement by its deadline may submit a petition in writing to their Program Director and the Grad AD requesting an extension to complete the requirement. The petition must:

- Explain extenuating circumstances as to why the requirement cannot be met
- Describe what has been done and will be done to get back on track
- Give the date(s) as to when the requirement will be completed
- Include a letter of support from the student's advisor

Students will be notified whether or not the Program Director and the Grad Associate Director have granted an extension by email or letter. Consequences of unsatisfactory performance and progress will directly affect consideration of eligibility for BMY academic year TA and RA positions. Programs and individual faculty, in addition, may use progress determinations to inform funding decisions.

Withdrawals

Withdrawing from a program

If a student wishes to withdraw from his/her graduate degree program and the university, they must complete the Voluntary Withdrawal form. Students must separately complete the appropriate forms with the University Registrar to withdraw from their courses.

Drop/Add and Withdrawal Deadlines

Registration deadlines determine the last day you are able to add, drop or withdraw from classes. Each class has its own set of registration deadlines which are based on the length of the class as well as the session in which the class is held. The drop/add/withdrawal deadlines listed on the Academic Calendar apply to classes scheduled in the regular A/B/C sessions. If your class does not follow the A/B/C session timelines, the drop/add/withdrawal deadlines are prorated. The best way to determine the registration deadlines for a class you are registered for is to sign in to My ASU and click on the calendar icon next to the class in the My Classes box. To determine the registration deadlines for a class you have not yet registered for, use the online Class Search and Course Catalog to search for the class and click on the Dates column in the search results.

Drop/add deadline

This is the last day to add a class or to drop a class without receiving a grade of "W" on your transcript. Adding a class after the drop/add deadline is considered a Late Add and requires instructor, department, and college approval. All withdrawals after this date will result in a grade of "W" on your transcript for each class withdrawn.

Course withdrawal deadline

This is the last day to request a withdrawal from a class while staying enrolled in other classes in the same session. A withdrawal from a class after this date is only available as part of a complete session withdrawal (see below).

Complete session withdrawal deadline

This is the last day to request a complete withdrawal from a session. As part of a complete session withdrawal, you must withdraw from all of your classes in the session.

Other Types of Drops/Withdrawal

There are appropriate circumstances when students may need to withdraw from the university (i.e. medical withdrawal, compassionate leave). The policies for such withdrawals are the same for both undergraduate and graduate students. Examples include:

- Medical and Compassionate Withdrawal
- Military Activation Withdrawal
- Instructor-initiated Drop
- Instructor-initiated Withdrawal

For information about these types of withdrawal, please visit: https://students.asu.edu/drop-add

Appeals

SCAS Program Manager provides the College of Global Futures (CGF) Associate Dean of Graduate Programs with a copy of the letter recommending dismissal of the student, along with supporting documentation. Appeals must be made within 10 days of the notification date. CGF then notifies students who appeal in writing that the College appeal has been received and will be reviewed. Possible outcomes of an appeal are:

1. The CGF Associate Dean notifies the student in writing of a successful appeal. The letter will include any stipulations or restrictions (e.g., continuation in the program is under the condition of academic probation, contingent on corrections within a time frame).

2. The CGF Associate Dean notifies students in writing of an unsuccessful appeal and that they will be recommended to the Graduate College for dismissal. Possible reasons for dismissal are:
    - GPA is lower than a 3.0
    - Non-satisfactory progress
    - Requirements for admittance with deficiencies are not met

Academic Probation

A student may be placed on academic probation if they meet any of the following criteria:

- The student does not meet GPA or grade requirements as outlined in the satisfactory academic progress policy;
- The student has more than one incompletes on their transcript since starting the program;
- The student does not meet milestones specified in the graduate handbook by the deadlines expressed therein; or
- The student fails to complete the program within the time to completion specified in the graduate handbook.

Students will be notified by email when placed on probation and may be required to complete a probation agreement with Mary Kivioja and Michael Barton. Students typically have one semester to advance to good standing before dismissal is considered. The student will be notified in writing if/when

they advance to good standing. Failure to return to good standing within the time limit set in the probation letter may result in dismissal from the academic program.

A student may be dismissed from a graduate program with or without first being placed on probation if:

- The student is on academic probation because their GPA has fallen below the minimum GPA as outlined in the Satisfactory Academic Progress Policy section or below 3.00 for all post-baccalaureate courses taken at ASU, and the student fails to bring the GPA to required levels by the deadline specified in the probation letter;
- The student receives a lower grade than what is required while on academic probation;
- The student has more than one permanent incompletes since starting the program;
- The student fails to meet conditions stipulated in their probation letter; or
- The student violates terms of the Student Code of Conduct.

Students will be notified by email and letter (sent to the student's listed mailing address) if they are being recommended for dismissal from the program. For a ground campus International student to be dismissed effective immediately, the school's advisor must provide a written document to the international student (as early in the process as possible) letting them know that being withdrawn from a degree program can have immediate consequences regarding their visa status.

Academic Probation and Dismissal Appeal Process

A student may appeal any action concerning academic probation or dismissal by petitioning through their school within 10 business days, using the College of Global Futures Grade Appeal and Academic Grievance Form.

Appealing probation status follows the Grade Appeal and Academic Grievance Process. The dismissal appeal process follows the process outlined below. Students can voluntarily withdraw from their degree program at any time during the dismissal/appeal process, thereby avoiding having a dismissal on their record.

Dismissal Appeal Process – School Level:

The designated person or committee within the school reviews the student's appeal. Possible outcomes include:

1. If the student does not appeal within the specified timeline in their letter, the school designee will notify the student in writing that they will be recommended to the Graduate College for dismissal.
2. The school designee notifies the student in writing of a successful appeal. The letter should include any stipulations or restrictions. For example, if the student is allowed to continue in the program under the condition of academic probation, the letter must outline specifically what the student needs to accomplish and in what timeframe to obtain academic good standing.
3. The school designee notifies the student in writing of an unsuccessful appeal. The letter will state that the school is recommending dismissal from the degree program. The student has the right to appeal the recommendation of dismissal to the college and they should send their appeal to Lisa Murphy (lisa.m.murphy@asu.edu) and the point of contact they've been working with in the school within 10 business days.

Dismissal Appeal Process – College Level:

The school provides the college-level designee with a letter recommending dismissal of the student, along with supporting documentation. The designated person or committee within the college reviews the student's appeal. Possible outcomes include:

3. If the student does not appeal within the specified timeline in letter, the college designee will notify the student in writing that they will be recommended to the Graduate College for dismissal.
4. If the student does appeal within the specified timeline in the letter, the college designee will notify the student in writing that the college-level appeal was received and will be reviewed.
5. The college designee notifies the student in writing of a successful appeal. The letter should include any stipulations or restrictions (e.g. if the student is allowed to continue in the program under the condition of academic probation, the letter must outline specifically what the student needs to accomplish and the timeframe to obtain academic good standing).
6. The college designee notifies the student in writing of an unsuccessful appeal and that they will be recommended to Graduate College for dismissal.

Graduate College Review of Dismissal:

If the student does not appeal at the college level, or if the appeal is denied, the college designee sends a recommendation for dismissal to the Graduate College along with supporting documentation. Graduate College reviews the case, notifies the student of the final dismissal decision and sends copies of the notification to the school and college.

Graduation

Every student is required to apply for graduation in the semester in which they plan to complete their degree or certificate. The university lists the graduation application deadline on the Academic Calendar. Students can apply after the deadline but will have to pay a late fee in addition to the graduation application fee. A separate application is required for each degree or certificate program.

The graduation deadlines and procedures are set by the office for the Graduate College and are available online at https://graduate.asu.edu/current-students/completing-your-degree. Deadline dates vary slightly depending on the calendar year, so students should check them carefully in advance of the semester they plan to graduate. It is very important that students become familiar with these deadlines so that graduation can occur during the expected term.

Students must apply for graduation through MyASU in accordance with the University Registrar policies. See Application for Graduation. Students must meet all University and the Graduate College degree requirements prior to the conferral of their degree.

Online resources for graduation

- Checklist to ensure graduation
- How to graduate: Master's with Portfolio
- Culminating Experience: capstone, thesis, dissertation,
- How to guides?
- Graduation Deadlines

Commencement and Convocation

There are two main ceremonies during graduation week, each requiring separate RSVPs:

- **Commencement** is the university-wide graduation ceremony (the graduate students' ceremony is separate from the undergraduates' ceremony), facilitated by the President of the University. Degrees are conferred at this ceremony.
- **Convocation** is the College of Global Futures graduation ceremony. Graduates walk across the stage in front of a smaller audience. Hoods are already worn since degrees are conferred at Commencement. The College of Global Futures will send additional information about graduation directly to students who have applied to graduate. Additional information can also be found here.

There are also special interest and cultural convocations in which students can participate.

Graduation regalia (cap with tassel, gown, and hood) is required for all students to participate in these ceremonies and are not provided by ASU. These items are available to purchase either on campus or online. Students are responsible for ordering, purchasing, and picking up their regalia.

Updating Student Name for Official Records

You can update your name both officially in the ASU system and specifically for your diploma. To update your name on all official records you may submit the Name Change Application to the Outgoing Transcripts section of the University Registrar Services. Their email is academicfiles@asu.edu Here is a link to the form: Name Change

To update your name on your diploma you may submit the Diploma Name form. Here is a link to this form: Diploma Name | ASU Students | ASU

After graduation

ASU Transcripts

Official and unofficial transcripts are available through University Registrar Services. Visit their website for instructions, fees, and FAQs.

The College of Global Futures Alumni Network strives to Empower College of Global Future alumni with enduring connections, education, and resources to be a voice and force for a thriving, sustainable world.

Career Services

The College of Global Futures has a career services team dedicated to helping students discuss career options and perform company and occupational research. To book an appointment, please visit the College of Global Futures Advising site.

Internships

The College of Global Futures Career Services team keeps the Careers Connect portal up to date to ensure students in the program can connect with meaningful opportunities like internships, fellowships, and full-time jobs. This resource is curated to align with the unique outlook and values of students studying in the College of Global Futures.

Need Help?

Student Resources

Information about other student services such as libraries, online tutoring, career services, and disability resources can be found at the following website: Student Services

International Students and Scholars Center

ASU's International Students and Scholars Center welcomes students from more than 158 countries around the world. We are here to support you with immigration information, employment resources, and opportunities to connect with fellow ASU students. https://issc.asu.edu/

Tutoring

Students can make appointments through the website or by calling 480-965-9072.
University Academic Success Programs

Graduate Writing Center

ASU's Graduate Writing Center specifically serves students enrolled in 500, 600 and 700 level classes. Using Adobe Connect, this real-time, appointment-based assistance allows students to meet one-on-one with a graduate writing consultant to receive feedback on their writing projects at any stage in their development and writing process.
The center is open Sundays–Thursdays with appointments available between the hours of 2 pm and 10 pm.

ASU Libraries

The ASU Library has a variety of resources with a wealth of information specifically for graduate students. We urge students to take advantage of the library offerings. For a list of offerings and more information:
ASU Library Resources for Graduate Students

Mentoring

As a graduate student at ASU, you should work on developing broad mentor networks. These should include formal one-on-one advisor relationships with faculty and professionals in your intended career fields and informal peer mentoring groups for navigating graduate life.
For more information: Mentoring

ASU Help Center

Visit contact.asu.edu for frequently requested information or visit the My ASU Service Center where you can easily search for answers to your questions using ASU's Knowledge Base or access 24/7 live chat with one of our ASU Help Desk agents. You can also request services or report an issue by creating a support case and our field of experts will route your request accordingly and follow-up by email or your preferred contact method.

Troubleshooting Tips for Accessing Online Courses

If you are having issues accessing your courses, here are a few things to try before you contact the ASU Help Center.

First: Try a different browser. If that doesn't work:

- Sign out of My ASU (don't just close the browser window.)
- Clear your browser cache.
- Disable your browser's pop-up blocker.
- Log back in and try again.

ASU Experience Center

The Experience Center is the front door for all ASU services and provides the highest level of service and support to our ASU family and beyond. Whether you need technical support, ID services, financial aid answers or other assistance, the Experience Center is here to help. It is open 24/7 and 365 days a year to help you!

Additional Resources

Information about other student services such as libraries, online tutoring, career services, and disability resources can be found at the following websites:

- http://asuonline.asu.edu/student-resources/student-services
- https://graduate.asu.edu/current-students/enrich-your-experience/resources-and-services

Graduate and Professional Student Association

GPSA will give a voice to you and other graduate and professional students. More Info

Family Resources

Find support services for families, including child-care referrals, special family workshops and events.
Resources for families

Culture and Identity

Join a community rooted in culture or ethnic identity to contribute personal heritage and values to ASU.
Culture at ASU

Make an Impact

Engage in service, civic leadership and social entrepreneurship in a variety of settings.
Create Change

ASU Career and Professional Development

Expand your network and find support from others in your career path.
Career/Professional Opportunities

Campus Safety

ASU provides a safe, healthy, and secure environment, with the goal of maintaining a healthy and secure campus community for students, staff, and faculty. Safety at ASU

The ASU Student Accessibility and Inclusive Learning Services

Formerly known as The DRC [Disability Resource Center] is a great resource for students with disabilities. It provides services to qualified students with disabilities on all ASU campuses. For convenience, students will find offices located at the Downtown, Polytechnic, Tempe, and West locations. You can contact any Accessibility office with the following information:
Phone: 480-965-1234
FAX: 480-965-0441
Email: DRC@asu.edu

ASU Counseling Services

ASU Counseling Services offers confidential, personal counseling and crisis services for students experiencing emotional concerns, problems in adjusting, and other factors that affect their ability to achieve their academic and personal goals.
For more information visit: https://eoss.asu.edu/counseling

Wellness Resources

Graduate school necessarily stretches us. When we strive to achieve experiences, content and context expertise, and professional mastery, we rely on every part of our intellectual, emotional, physical and purposeful self. Stretching in these ways is inherently stressful, and according to the National College Health Assessment (NCHA) graduate students report stress, feeling exhausted, and anxiety to be factors that can surface in different ways than they did in undergrad. Read up on some of the ways you can care for yourself through increasing academic rigor and demands at this link: 10 Best Practices in Graduate Student Wellbeing

Your wellness is important to us. ASU provides many resources to help with financial, emotional, physical, and social concerns. Please utilize these opportunities for support by clicking this link: Graduate Wellness Resources

Technical Support

ASU provides a number of resources to help you plug in and stay connected to the technology you'll need to complete your degree online.

Visit contact.asu.edu for frequently requested information or visit the My ASU Service Center where you can easily search for answers to your questions using ASU's Knowledge Base or access 24/7 live chat with one of our ASU Help Desk agents. You can also request services or report an issue by creating a support case and our field of experts will route your request accordingly and follow-up by email or your preferred contact method.

Troubleshooting Tips for Accessing Online Courses

If you are having issues accessing your courses, here are a few things to try before you contact the ASU Help Center.

- **First**: Try a different browser. If that doesn't work:
- Sign out of My ASU (don't just close the browser window).
- Clear your browser cache.
- Disable your browser's pop-up blocker.
- Log back in and try again.

Overarching University Policies

The policies outlined below are those consistent across ASU, ASU Online, the Graduate College, the College of Global Futures, and the School of Complex Adaptive Systems (SCAS).

Guided by ASU's commitment to excellence, access, and impact, the Office of Student Rights and Responsibilities (OSRR) supports a safe and inclusive environment that fosters the intellectual, personal, social, ethical development of all students. In partnership with university departments and programs, we help students see themselves as responsible members of a diverse community. SRR provides students with the opportunity to consider the ways in which their conduct may define and impact their college experience-personally and in relationship with others.

For more information about SRR and FAQs for students and parents, please visit: Student Rights and Responsibilities | Arizona State University

Student Responsibility

It is the responsibility of each student to understand and observe all procedures and requirements specified by the ASU Graduate College, the College of Global Futures, and the School of Complex Adaptive Systems. **It is a requirement for all students to read and understand the Graduate Handbook and the ASU Academic Catalog as well as adhere to the Student Code of Conduct (described below).** Faculty and staff provide academic advice and assistance; however, the ultimate responsibility for meeting degree and other requirements remains with the student. Students should frequently check their MyASU account. All ASU students are required to have an active ASU email.

Graduate College Handbook

The Graduate College oversees all graduate programs and upholds university rules and policies. All graduate students are responsible for familiarizing themselves with these policies in addition to specific academic unit policies. The ASU Graduate Policies and Procedures guide cover all university-level requirements.

Professional Ethics

As a graduate student, you have joined a larger community that is engaged in the quest for knowledge, understanding, and equity for all. You have committed yourself to honest, ethical, and cooperative learning and inquiry. You represent this university community in many ways. Please consider that responsibility in your conduct. All your work, including research and courses, must be original, accurate, and documented, and must reflect individual effort and integrity.

Culture of Respect

ASU is a community and a professional work environment. Graduate students are expected to treat their peers, teachers, students, staff, and members of the ASU community with respect and work with them in a professional manner. Complexity graduate students are representatives of the College of Global Futures, the School of Complex Adaptive Systems, and the University; SCAS expects its students will be good representatives who recognize that poor behavior on the part of one student impacts all by creating a negative perception of the College, the School, and the University.

Academic Integrity

The College of Global Futures takes academic integrity seriously and requires students to:

- have a good understanding of what academic integrity is and why it's important;
- understand what types of activities and behaviors violate the student honor code and ASU's academic integrity policy;
- have an awareness that resources exist to help prevent academic integrity violations; and
- report all academic integrity violations as soon as they arise.

Each college/school has an academic integrity officer who can address questions related to academic integrity. If there are questions about a particular course, students should reach out to officers from the college/school that offers the course. Students can learn more on the College of Global Futures Academic Integrity page.

Newly admitted graduate students will receive a "priority task" in My ASU directing them to complete an online Academic Integrity Tutorial, which all newly admitted graduate students are expected to complete within their first semester of coursework.

Student Rights and Responsibilities, and Code of Conduct

The aim of education is the intellectual, personal, social, and ethical development of the individual. The educational process is ideally conducted in an environment that encourages reasoned discourse, intellectual honesty, openness to constructive change, and respect for the rights of all individuals. Self -discipline and a respect for the rights of others in the university community are necessary for the fulfillment of such goals. The Student Code of Conduct is designed to promote this environment at Arizona State University. All Students are expected to adhere to the Student Code of Conduct.

The Student Code of Conduct sets forth the standards of conduct expected of students who choose to join the university community. Students who violate these standards will be subject to disciplinary sanctions in order to promote their own personal development, to protect the university community, and to maintain order and stability on campus.

The OSRR investigates allegations of student misconduct and determines whether a violation of the Student Code of Conduct has occurred. Students who are found responsible for violations of the Student Code of Conduct are encouraged to reflect on their behavior through the use of educationally based sanctions that assists the students in making informed choices and developing in a holistic manner.

For more information about the OSRR and FAQs for students and parents, please visit: https://eoss.asu.edu/dos/srr

Sexual Harassment

Sexual Harassment is defined as unwelcome behavior of a sexual nature that reasonably interferes with the working/learning environment and creates a hostile, intimidating, or offensive environment or takes the form of seeking sexual favors in exchange for a promise of a benefit or a threat of a penalty. Sexual harassment is a violation of ASU policy as well as a state and federal law. More information about this policy is available at https://sexualviolenceprevention.asu.edu/.

Title IX Compliance

Title IX of the Education Amendments of 1972 protects individuals from discrimination based on gender in any educational program or activity operated by recipients of federal financial assistance. Sexual

harassment, which includes acts of sexual violence, is a form of sex discrimination prohibited by Title IX. ASU does not discriminate on the basis of gender in the employment, education programs or activities it operates. ASU is committed to providing an environment free from discrimination based on sex and provides a number of resources and services to assist students, faculty, and staff in addressing issues involving sex discrimination, including sexual violence. For more details regarding Title IX, visit: https://cfo.asu.edu/titleIX

Religious Beliefs and Practices

No employee, agent, or institution under the jurisdiction of the Arizona Board of Regents shall discriminate or retaliate against any student, employee, or other individuals because of an individual's religious belief or practice or an absence thereof. Furthermore, administrators and faculty members must reasonably accommodate individual religious practices. A refusal to accommodate is justified only when undue hardship would result from each available alternative of reasonable accommodation. No administrator or faculty member shall retaliate or otherwise discriminate against any student, employee, or prospective employee because that individual sought a religious accommodation pursuant to this policy. More information is available at https://cfo.asu.edu/equity-and-inclusion.

Discrimination Complaints and Equal Opportunity Policy Statement

ASU promotes equal opportunity through affirmative action in employment and educational programs and activities. Discrimination is prohibited on the basis of race, color, religion, national origin, citizenship, sex, sexual orientation, gender identity, age, disability, special disabled veteran, or Vietnam-era veteran status. Equal opportunity includes, but is not limited to, recruitment, hiring, promotion, termination, compensation, benefits, transfers, university-sponsored training, education, tuition assistance, and social and recreational programs. More information is available at https://cfo.asu.edu/equity-and-inclusion.

Any complaint of alleged discrimination or harassment may be filed with the Office of Equity & Inclusion for investigation and resolution. Any employee or student may visit with the Office's staff to discuss, in confidence, any concern without fear of jeopardizing job or academic standing within the University. ASU's Office of Equity and Inclusion phone: (480) 965-5057

Student Anti-Retaliation Statement

Students have the right to be free from retaliation. Threats or other forms of intimidation or retribution against a student who files a complaint or grievance, requests an administrative remedy, participates in an investigation, appears as a witness at an administrative hearing, or opposes an unlawful act, discriminatory practice, or policy are prohibited and subject to university disciplinary procedures. Students with complaints of retaliation should utilize the procedures available under the University Code of Conduct, the Student Code of Conduct, the Graduate Student Grievance Procedure, the Student Employee Grievance Procedure, the Sexual Harassment Policy, nondiscrimination policies, or other available administrative procedures as appropriate. For assistance with procedures, students should contact the Dean of the academic college if the circumstances relate to a course or academic evaluation, the Director of the Office of Equity and Inclusion if the circumstances relate to a claim or discrimination or harassment, or the Dean of Students for all other circumstances.

Social Media Training & Guidelines for Students

ASU is an innovative, technologically advanced University and its students are encouraged to use all forms of communication — including social media — to better themselves and their communities. The messages we share on social media can have a powerful impact on our lives and the lives of others.

In the use of social media and all types of communication, we follow the Code of Conduct and the Sun Devil Way

- The ASU Code of Conduct encourages “self-discipline and a respect for the rights of others in the university community."
- The Sun Devil Way encourages achievement, engagement, and responsibility in our educational endeavors.

Our university is part of a diverse, global community that includes people of varying backgrounds and belief systems; varying ethnicities and national origin; and varying sexual orientation. Part of your educational experience is to seek to understand people different from yourself and to have respect and empathy for them as fellow human beings. This need for respect and empathy extends to the way we communicate, especially on social media.

The university is also where you may begin to build your public and professional reputation and persona. The way you communicate and conduct yourself on social media can have a lasting impact — positive or negative — on your social, academic, and professional life. You should always think through the consequences of the messages you post.

Visit Online Social Networking Guidelines for guidelines to consider when using social media.

Checklist of things to do:

- ❏ Apply to the program
- ❏ Apply for scholarships and financial aid
- ❏ Review the handbook - understand all expectations and requirements
- ❏ Sign acceptance letter and return to mkivioja@asu.edu.
- ❏ Set-up your ASU email and login/familiarize yourself with your MyASU account
- ❏ Set up a meeting with your advisor.
- ❏ Develop your plan of study (iPOS)
- ❏ Register for classes thru my.asu.edu
- ❏ Familiarize yourself with Canvas (access through my.asu.edu)
- ❏ Pay your tuition
- ❏ Submit your plan of study thru my.asu.edu (iPOS)
- ❏ Take required courses for program completion
- ❏ Adjust changes to your iPOS as you go through the program
- ❏ Stay enrolled in at least 1 credit per semester (summer excluded)
- ❏ Identify an SCAS faculty member to be your applied project advisor
- ❏ Email mkivioja@asu.edu with your project advisor name and which sessions of CAS 593 you want to enroll in
- ❏ Apply for graduation in the semester of your last course thru my.asu.edu
- ❏ Make sure your iPOS is fully submitted and approved
- ❏ Graduate!