



# THE BIOMIMICRY CENTER AT ARIZONA STATE UNIVERSITY

**ASU Online**<sup>®</sup>  
Arizona State University

**ASU** School of Complex  
Adaptive Systems  
Arizona State University

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## Biomimicry Graduate Student Handbook

Master of Science | Graduate Certificate

**2023 - 2024**



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### The Biomimicry Center at Arizona State University

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# Welcome to Biomimicry!

## *Hello Future Biomimic!*

My name is Dayna Baumeister and on behalf of all of us at ASU through the College of Global Futures (CGF) and The Biomimicry Center, I would like to welcome you to the graduate biomimicry program. You are joining a unique group of individuals from around the world committed to bringing biomimicry into their disciplines. We hope your journey will be exciting and rewarding.



This unique biomimicry program is designed primarily for working professionals who want to make the practice of biomimicry central to their career. Our coursework is designed to help you learn the tools of biomimicry and find ways to apply your existing disciplinary knowledge to the practice and advancement of biomimicry.

There is a rapidly growing demand for biomimicry practitioners. We have designed our programs with the goal of graduating world-class professional practitioners.

### **Graduates of the Biomimicry Certificate can expect to be able to:**

- Integrate biomimicry thinking into a sphere-specific opportunity resulting in biomimetic outcomes
- Apply Life's Principles to specific needs within your sphere
- Facilitate the integration of biology into design within your sphere using biomimicry thinking
- Guide processes in your sphere towards sustainability
- Interpret observations in nature with a functional lens for design applications
- Abstract design principles from biological observations for application to your sphere
- Communicate effectively through verbal and visual means how the process of biomimicry works in your sphere
- Initiate or transform one's practice to specialize in biomimicry
- Engage and lead others within your current company/organization to begin practicing biomimicry

Graduates of the MS program will be qualified to do all of the above, independent of application, as well as:

- Lead in-house implementation of biomimicry across a variety of applications;
- Initiate or transform a consulting practice in the field of biomimicry;
- Incorporate biomimicry into education for the next generation of biomimics;
- Develop innovative and sustainable solutions to the most pressing global challenges.

We expect graduates from the program to transform the ways in which we conduct business, design buildings and products, run governments, provide healthcare, manufacture goods, grow food and educate future generations. We are thrilled this is a path you've chosen.

# 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.***

## Commitment to Justice, Equity, Diversity, and Inclusion

Arizona State University is going through a process of examining its colonial past and culture and how it has historically benefitted from injustices, inequalities, exclusions, and pressures to conform, as well as how these in turn impact how we think about and behave toward the future. This is a process that requires our faculty, staff, and students to reflect on the intellectual, ethnic, and cultural diversity of our nation, and to become agents of change as we advance Justice, Equity, Diversity, and Inclusion (JEDI) in the world. We aspire to become a space where our students learn from the broadest perspectives and grow empowered and motivated to curb injustice, inequity, uniformity, and exclusion. We engage in the advancement of multiple forms of knowledge with the most inclusive understanding possible of the issues we are addressing through our scholarly activities, promoting openness. At ASU, we believe that diversity involves addressing and redressing unequal power dynamics between different groups, including categories such as race, ethnicity, religion, country of origin, sexual orientation, socioeconomic background, age, cultural identity, intellectual perspective, physical and mental abilities, and veteran experience.

As part of ASU and a broader national and global community that is still impacted by racism, oppression, discrimination and the systematic extermination of non-human life, the College of Global Futures is fully committed to lead by example, and embed Justice, Equity, Diversity, and Inclusion (JEDI) in all aspects of its work. This includes working closely with students to ensure that the courses they take, the environment they work in, and the experience they have within the College of Global Futures and its associated schools and programs reflect this commitment.

In Fall 2020, the College formed two school-based committees, consisting of faculty, staff, and students, to study current strategies toward justice, equity, diversity, and inclusion; progress toward stated goals; and needs for change. The committees met regularly with individuals and communities, including students, faculty, and staff, and began work toward strategic plans to further address and support JEDI across the college. However, these initiatives will not have any impact unless everyone in our community does their part toward changing the organizational structures and practices of academia and education institutions that still abide by and promote injustices, inequity, uniformity, and exclusion.

Moving forward, the college will continue to invest in and support responsive and impactful JEDI initiatives that engage faculty, staff, and students as we work together to build a just, fair, and sustainable future.

## 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.

- [Dispelling Stereotypes video series](#)
- [To Be Welcoming implicit bias classes](#) from ASU/Starbucks Global Academy (30-60 mins each)
- [ASU's Office of Inclusion and Community Engagement website](#)

## Land Acknowledgement

The Biomimicry Center 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 Biomimicry Center 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.

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# Purpose of the Handbook

This Handbook is a very important guide for graduate students admitted to the Master of Science (MS) in Biomimicry and the Graduate Certificate in Biomimicry programs.

It 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.

Current BMY graduate students are added to an email list to receive important information about deadlines, scholarships, jobs, workshops, and events. Students who are not receiving emails should contact [biomimicry@asu.edu](mailto:biomimicry@asu.edu) to be added to the list.

The policies listed in this handbook are from ASU Graduate College, the College of Global Futures, and the Biomimicry Center. The handbook is updated annually and you are subject to the policies.

**Almost all links in the handbook require you to be logged into ASU in order to view.**

## 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 covers all university-level requirements.

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 Biomimicry Center. **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.** 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.

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# What you need to know before your first day:

## Overarching University Policies

The policies outlined below are those consistent across ASU, ASU Online, the Graduate College, The Biomimicry Center, and the College of Global Futures.

Guided by ASU's commitment to excellence, access, and impact, the Office of Student Rights and Responsibilities (SRR) 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](#)

### Professional Ethics

As a graduate student, you have joined a larger community that is engaged in the scientific quest for truth, thus committing yourself to an honest, ethical, and cooperative style of learning and inquiry. You represent the university in this 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. Biomimicry graduate students are representatives of the College of Global Futures, the School of Complex Adaptive Systems, the Biomimicry Center, and the University. The Biomimicry Center 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, the Center, and the University.

### Academic Integrity

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

1. have a good understanding of [what academic integrity is](#) and [why it's important](#);
2. understand what types of activities and behaviors violate the [student honor code](#) and [ASU's academic integrity policy](#);
3. have an awareness that [resources](#) exist to help prevent academic integrity violations; and
4. [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.

Newly admitted graduate students will receive a "priority task" in My ASU directing them to complete an online module on academic integrity. The module consists of a PowerPoint that outlines academic integrity and students must take a quiz and pass with an 80% or higher.

### Student 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.



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. All Students are expected to adhere to the [Student Code of Conduct](#).

### **Title IX Compliance**

[Title IX of the Education Amendments of 1972](#) protects individuals from discrimination based on sex 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 sex 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.

### **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 [Sexual Violence Awareness and Response | Sexual Violence Awareness, Prevention and Response](#).

### **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 [Diversity, Equity and Inclusion | Arizona State University](#).

### **ASU 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.

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## Biomimicry at ASU



Biomimicry is a discipline that seeks to emulate nature's strategies and principles to create sustainable solutions to human challenges. By asking the question: "How would nature do this?" biomimics around the world are creating products, processes, companies, and policies that are well adapted to life on earth over the long haul. Examples include turbine blades designed like whale fins to reduce drag and stronger fiber optics produced like sea sponges. (See [seven more examples](#) explained on Mother Nature Network.)

Humans have turned to nature for inspiration and solutions for a long time. But a formal methodology—drawing on peer-reviewed biological research—has only evolved over the last several decades. Following the publication of her seminal 1997 book *Biomimicry: Innovation Inspired by Nature*, Janine Benyus and Dr. Dayna Baumeister created

the Biomimicry Guild, which formalized the practice of biomimicry as a methodical tool for innovating sustainability solutions.

As demand grew for biomimicry education and consulting, Benyus and Baumeister founded the nonprofit Biomimicry Institute and the innovation firm Biomimicry 3.8, which has worked with notable clients like Interface, Jacobs Engineering, HOK, Ford, Google, Unilever, Nike and The Coca-Cola Company.

ASU's involvement with biomimicry started taking shape in Fall 2008 when InnovationSpace Co-Director Adelheid Fischer began incorporating principles and methodologies of biomimicry into the program's curriculum. Fischer, along with InnovationSpace Director Prasad Boradkar and Ph.D. students from ASU's School of Life Sciences worked closely with the biomimicry institute in developing educational materials to teach biomimicry to undergraduate students in design, business, and engineering. In 2010, ASU became the [first U.S. affiliate institution](#) of The Biomimicry Institute, an agreement that laid the groundwork for the joint development of biomimicry-based courses and other educational opportunities. At this time, Fischer was named a Biomimicry Fellow by the institute.

In 2013, a team including Boradkar and Baumeister proposed the creation of the Biomimicry Center at ASU, which would naturally align with the [eight design aspirations of the New American University](#) as outlined by university president Dr. Michael Crow. The Biomimicry Center is a joint initiative of ASU and



Biomimicry 3.8. Former ASU Provost, Dr. Robert Page, provided support for this initiative and led a university-wide effort to raise funds for the new center.

The proposal was approved in spring 2014 with funding from several units across campus including the Herberger Institute for Design and the Arts, College of Liberal Arts and Sciences, School of Sustainability, W.P. Carey School of Business, and the Ira A. Fulton Schools of Engineering, as well as the Provost's Office and the Office of Knowledge and Enterprise Development.

For the first five years of the program, the degrees were associated with the School of Life Sciences (SOLS), recognizing the critical role biology plays in biomimicry. While it is an emerging discipline in its own right, while simultaneously thriving in the inter- and transdisciplinary space, without the field of biology and the knowledge about the life sciences, biomimicry could not be practiced. Additionally, the integrity of the science behind the biology from which biomimics draw inspiration is fundamental to the successful implementation of bio-inspired ideas.

In 2020, ASU established the College of Global Futures, 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. Due to the unique interdisciplinary nature of biomimicry coupled with its fundamental mission to build a world that creates conditions conducive to life, we eagerly joined the College of Global Futures, with the program housed in the School of Complex Adaptive Systems.

For more information about the College of Global Future, visit: [College of Global Futures: Home](#)

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## Overview of the Biomimicry Programs

The online Master of Science (MS) in Biomimicry Degree at ASU and the Graduate Certificate are the first of their kind in biomimicry, an emerging discipline that seeks to apply life's strategies to human design. Both are offered through ASU's College of Global Futures School, School of Complex Adaptive Systems, ASUOnline, the Biomimicry Center at ASU and by the leadership of Biomimicry 3.8 – a globally-recognized social enterprise in the field of biomimicry. The MS also complements the [Certified Biomimicry Professional](#) program and the certificate in Biomimicry Specialist program, offered by Biomimicry 3.8.

The programs are designed for working professionals who want to make the practice of biomimicry central to their careers, most of which include the fields of biology, design, business, and engineering. Applicants to the program typically are not interested in additional graduate work in their primary disciplines. Instead, students are looking for the opportunity to apply their existing disciplinary knowledge to the practice and advancement of biomimicry.

Through these degree programs, you will learn the methodology and practice of the discipline and how to facilitate its application across a wide variety of applications. The biomimicry programs are ideal if you are interested in innovative, transdisciplinary learning and the opportunity to work with students from around the globe to advance the field and develop sustainable, real-world applications. You will also apply the fundamentals of your training during a series of practicums, including a self-designed "Biomimicry Virtual Design Lab."

Because of the practical application emphasis of the program, you will benefit the most from your training with at least 3–4 years of experience after your undergraduate degree. Others who have studied biomimicry have applied their knowledge globally in areas like sustainability, transportation, business, product design, architecture, economics, and nonprofit ventures.

The Biomimicry Center website is a great resource for information. [The Biomimicry Center: Home](#)

**If you'd like to hear from some of our past students about their favorite class, definition of biomimicry and why it's important, we highly recommend watching the videos here: [Student Videos](#)**

### Organization and Administration of Programs

The Directors of the Biomimicry Center and the Directors of the School of Complex Adaptive Systems (SCAS) in the College of Global Futures are the representatives to the administration and are responsible for implementing university policies.



#### [Dayna Baumeister](#)

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#### [Mary Kivioja](#)

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(480)727-0478

## ASU Contacts

The below contacts can provide assistance based on your needs.

<a href="#">ASU Online Contact</a>	General Inquiries	asuonline@asu.edu	480-884-1525
<a href="#">ASU Online Enrollment</a>	Help with admissions, Applications, Enrolling in courses	asuonline@asu.edu	1-866-277-6589
<a href="#">Graduate Admissions</a>	Applications, Transcripts, Withdrawal Requests	gograd@asu.edu	480-965-6113
<a href="#">Graduate College</a>	Policies, Procedures, iPOS, Graduate Programs	grad-gps@asu.edu	480-965-3521
<a href="#">Registrar's Office</a>	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
<a href="#">Student Business Services</a>	Student account services: tuition, billing, refunds, receipt and payment processing, support for past due accounts, third party sponsorship assistance	sponsorbilling@asu.edu	1-855-278-5080

## 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 [biomimicry@asu.edu](mailto:biomimicry@asu.edu) or [mkivioja@asu.edu](mailto:mkivioja@asu.edu).

**Success Coach:** 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

## ASU Email

Students may forward their ASU email to another preferred account. 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, SCAS, and the Biomimicry Center will communicate via ASU email only.

## Graduate Student Tool Kit

This toolkit was developed to be a resource for new graduate students and help them prepare for online courses and succeed in their program. The Graduate Toolkit focuses on the following key skills:

- Hosted in Canvas, the Toolkit offers an introduction to the online LMS
- An iPOS overview
- Important policies for graduate students
- Programmatic handbooks and insights
- An introduction to the student support team
- An overview of student resources
- A brief review of using My ASU
- How to register for classes and purchase textbooks
- Financing your degree
- Academic Integrity
- Computer Requirements
- What to expect in the classroom
- How to prepare for Academic Rigor
- Strategies for Success

## Biomimicry Watering Hole

All students upon enrollment are registered in a course called [Biomimicry Watering Hole](#). Here you will find a link to the watering hole which serves as our virtual “student lounge”. There you can find information and updates about the program from program staff, as well as biomimicry in the news, and opportunities to network with fellow students.



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## Admissions

### Admission Types

- **Regular Admission** Applicant satisfies all requirements for admission and is academically acceptable to both the degree program and the Graduate College.
- **Conditional Admission** Applicant's grades and test scores are at an acceptable level but the applicant does not have the academic background expected by the degree program and the university. Required deficiency courses are taken and monitored by the Graduate College and SCAS. Required courses are BMY 501, 502, 503, and 504 which can be taken in any order with the exception of BMY 501 which must be taken in the first semester. All four courses need to be taken within three semesters of continuous enrollment and the student must receive at least an A- in 502, 503 and 504. Students who do not meet the provisions in the required timeframe will be withdrawn from the program.

### Defer Admission

Applicants must register and enroll in courses in the semester they applied to. Students can defer their starting semester to the next semester, if needed. To change the starting semester, the student must notify The Biomimicry Center, [mary.kivioja@asu.edu](mailto:mary.kivioja@asu.edu) and request the change through their myASU page. There is a fee to defer. **The only opportunity to change the starting semester, without a fee, is before the student is officially accepted into the program.**

### Enrollment Verification Guidelines for Graduate Students

These are federally established rates, relevant for financial aid considerations.

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

#### *\*\*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.*



## Dual or Transfer Enrollment in the Graduate Certificate and the Master's degree

*Please pay close attention to the following options pertaining to the relationship between the programs if you anticipate changing programs or earning both credentials*

### *Option 1: Earn both credentials by enrolling in both programs from the start*

If you know for sure you want to do both, your easiest logistical path is to enroll in both the certificate and MS right from the start together (or as soon as possible after admission to one), then there will never be a pre-admission issue.

The programs are designed to be nested, the first 13 credits of the 15 credit certificate are the same as the MS program. The last 2-credits of the Certificate earned for BMY 530, however, will not count towards the MS requirement of 30 credits. (You can either take BMY 530 again with a new topic near the end of your MS or choose one of the other three practicums).

If you are enrolled in both programs and then choose not to go on for the MS you can leave once the certificate is complete, OR continue on and earn both credentials.

To withdraw from either the Graduate Certificate or the Master's Degree Program, you are required to fill out and submit the [Voluntary Withdrawal form](#).

### *Option 2: Switch to the MS after you started the Certificate program*

If you want to switch from the certificate to the MS, the earlier you apply to the MS the better, since there is a 12 credit pre-admission policy to degree programs. This means that you can transfer up to 12 credits from one program to another without asking special permission. As soon as you switch, you can bring your credits over. If you wait until after you have earned 13 credits, you will have to petition to bring over the last credit. You will transfer your credits over on your plan of study on the first day of classes.

### *Option 3: Switch to the Certificate after you started the MS Program*

If you started the MS program, but decide to complete the Certificate instead, you have to withdraw from the MS and enroll in the Certificate before you complete your first 6 credits. To withdraw from the MS program, you are required to fill out and submit the [Voluntary Withdrawal form](#)

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## Program Content

### Faculty

Faculty members have significant expertise in many of the most important challenges that society faces. Many members bring considerable industrial experience to bear on their teaching and research. Some of the following teach the BMY courses, whereas others are available to serve on practicum committees

#### **Karen Allen, MS**

Faculty Associate (biology), SCAS

**Zeynep Arhon, MBA, MS**

Faculty Associate (business), SCAS

**Dayna Baumeister, PhD**

Co-Director of the Biomimicry Center, Professor of Practice (biomimicry), SCAS

**Thomas Baumeister, PhD**

Faculty Associate (conservation psychology & biology), SCAS

**Marie Zanowick Bourgeois, MEng**

Faculty Associate (engineering), SCAS

**Mark Dorfman, MPH**

Faculty Associate (chemistry), SCAS

**Michelle Fehler, MS, MFA**

Lecturer, The Design School, and Faculty Associate, SCAS

**Seth GaleWyrick, MS**

Faculty Associate (engineering), SCAS

**Jacques Chirazi, MS**

Faculty Associate , SCAS

**Erin Rovalo, PhD**

Faculty Associate (design), SCAS

The following faculty have participated in a Biomimicry Immersion Workshop and have in some way incorporated biomimicry into their research and teaching at ASU. They may be available for support on practicum projects; the student must reach out directly. You may also check out the [Biomimicry Center faculty affiliates](#) for additional faculty with an interest in biomimicry at ASU.

[Hanna Breetz](#) - South Africa 2015

[James Scott Reeves](#) - Arizona 2016

[Rhett Trujillo](#) - Montana 2017

[Shirley Ann Behraves](#) - Montana 2017

[Konrad Rykaczewski](#) - Arizona 2016

[Molina Walters](#) - California 2017

[Ted Pavlic](#) - Costa Rica 2014

[Michelle Fehler](#) - Costa Rica 2014

[Dhruv Bhate](#) - Georgia 2017

[Dosun Shin](#) - Costa Rica 2019

[Junliang Tao](#) - Costa Rica 2019





## Course Information – Graduate Certificate

15 credit hours including the required capstone course BMY 530

BMY 501 Essentials of Biomimicry (1)  
BMY 502 Life's Principles (4)  
BMY 503 Biology Taught Functionally (4)  
BMY 504 Biomimicry Thinking (4)  
BMY 530 Virtual Design Lab Practicum (2) (to be taken last)

## Course Information – Master's Degree

Total required credit hours: minimum of 30 credits

### Required Core Courses (14 credit hours)

BMY 501 Essentials of Biomimicry (1)  
BMY 502 Life's Principles (4)  
BMY 503 Biology Taught Functionally (4)  
BMY 504 Biomimicry Thinking (4)  
BMY 598 Biomimicry Ethos (1)

### Elective Courses (10 credit hours)

BMY 511 Biomimicry and Design (3)  
BMY 512 Biomimicry and Engineering (3)  
BMY 516 Biomimicry and Business (3)  
BMY 598 Biomimicry and Chemistry (3)

*Note: you must choose at least two courses of 511, 512, 516 and 598 (Chemistry). It is strongly recommended that you choose three.*

BMY 517 Human-Nature Connection (2)  
BMY 598 Topic: iSites (1)  
BMY 598 Topic: Communicating Biomimicry (1)  
BMY 598 Topic: Teaching Biomimicry (1)

*Note: It is strongly recommended that you take at least one of either BMY 598 iSites OR BMY 517 Human-Nature Connection.*

### Other Requirements: Practicum Courses (6 credit hours; choose 3):

BMY 530 Virtual Design Lab Practicum (2)  
BMY 580 Topic: BioBrainstorm Practicum (2)  
BMY 580 Topic: Biomimicry Case Study Practicum (2)  
BMY 580 Topic: Biomimicry Genius of Place Practicum (2)

### Culminating Experience

Portfolio (see [Digication Portfolio](#) information)

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## Course Descriptions

### **Essentials of Biomimicry** BMY 501 | 1 Credit

The Essentials of Biomimicry is a one-quarter class (7.5 weeks) offered as an introductory sampler to the various topics (discipline, emulate, ethos, (re)connect & iSites, human-nature connection, Biomimicry Thinking, and Life's Principles) within the discipline of biomimicry. Each week is devoted to a specific topic and is led by a different instructor. The course is intended to provide a basic overview of each aspect of the discipline with ample opportunity for conversation and dialogue around the specific components.

Faculty: [Baumeister, D.](#), [Arhon, Rovalo](#), [Baumeister, T.](#)

### **Life's Principles** BMY 502 | 4 Credits

Life's Principles are nature's universal design guidelines based on 3.8 billion years of successful strategies across all life. This 12-week course takes participants on a deep dive, including the review and study of life's operating conditions on Earth, six primary principles, and their related sub-principles. This course gives participants the knowledge necessary to bring these design guidelines into practice and provides the opportunity to integrate them into one's discipline.

Faculty: [Baumeister, D.](#)

### **Biology Taught Functionally** BMY 503 | 4 Credits

Biomimicry teaches biology through the lens of function, thereby providing a core understanding in biology for all students, no matter their background. This 15-week course explores how biologists gather and research information and how that knowledge can inform other disciplines. It also introduces the art of translating biological concepts into strategies for application, which is then carried throughout all the courses. You will learn how to work with biologists on a biomimicry team and how to weave biology and biomimicry together. You will learn to look at nature through the function lens, and how to identify subject matter experts needed for interdisciplinary teams.

Faculty: [Allen, K.](#)

### **Biomimicry Thinking** BMY 504 | 4 Credits

Biomimicry Thinking is the practice of biomimicry from a methodology-based approach. This 15-week exploration into the Biomimicry methodology reviews how biology and biomimicry can be incorporated into the four major phases of any design process: scoping, discovering, creating, and evaluation. It introduces the art of translating biological concepts into strategies for application and building a taxonomy of design principles. The course includes a practicing tools component and a final multi-week group project.

Faculty: [Baumeister, D.](#)

### **Biomimicry Ethos** BMY 598 | 1 Credit

Biomimicry offers us a way to (re)examine our relationship with the natural world of which we are a part of, and encourages us to commit to a more harmonious and sustainable way of living on this planet. The 7.5-week course explores the natural pathway that leads from experiencing and understanding life, connecting with life, to committing to care for life. Drawing from diverse academic disciplines as well as various social practices, the course provides practitioners with tangible approaches to care for non-human biological life on the basis of respect and gratitude. Through guided inquiry, analysis, critique, and reflection, participants develop and express a rational justification for our obligations to life-based on how the practice of biomimicry embodies and advances the core tenets of sustainability.

Faculty: [Baumeister, T.](#)

### **Biomimicry and Design** BMY 511 | 3 Credits

This course will prepare participants to design sustainable innovations using the biomimicry philosophy and methodology. A 15-week series of lectures and assignments seeks to demystify the design thinking process, understand how to harness the potential of approaching challenges with a design mind, distill a design challenge, understand user needs, build a bridge between biology and design, use a methodology for discovering models from nature, abstract design principles from bio-inspired strategies, and translate those principles into sustainable innovations. The course is not designed to teach one to be a designer *per se*, but rather how the discipline works to facilitate the involvement of designers into the practice of biomimicry.

Faculty: Rovalo, E.

### **Biomimicry and Engineering** BMY 512 | 3 Credits

Biomimicry and Engineering will prepare participants to understand the field of engineering, identify the types of engineers and what each does, what constraints engineers work under, materials selected by engineers, how to present biological ideas to engineers and how to integrate ideas from their discipline into sustainable engineering designs using biomimicry principles. The 15-week course is not designed to teach one how to be an engineer, but rather how the discipline works in order to facilitate the involvement of engineers in the practice of biomimicry. A final team project designed to put these ideas into practice is required.

Faculty: Bourgeois, M., GaleWyrick, S.

### **Biomimicry and Business** BMY 516 | 3 Credits

BMY 516 is an elective course for students who are interested in applying biomimicry in business in order to generate process- and system-level change. The 12-week course addresses business topics from a biomimicry point of view; it challenges students to question the conventional ways of conducting business and come up with new approaches based on nature's strategies. Content focuses on the "design of business" rather than product design. Learning from nature how to innovate and collaborate, assessing and improving existing business models with Life's Principles, and Open Innovation are examples of topics covered.

Faculty: Arhon, Z.

### **Biomimicry and Chemistry** BMY 598 | 3 Credits

There is a common misconception that chemicals are man-made entities that contaminate an otherwise chemical-free natural world, but nothing could be further from the truth—nature is ALIVE with chemistry! This 15-week course will provide students with insights into what makes nature's living chemistry so effective at achieving the same functionalities required of commercial chemicals and materials, while at the same time, creating conditions conducive to life. The course is designed for the non-chemist, but chemists will also walk away with a fresh appreciation for nature's elegant and sophisticated chemistry principles. A final team project will allow students to experience the practical application of nature's chemistry principles.

Faculty: Dorfman, M.

### **Human-Nature Connection** BMY 517 | 2 Credits

This 7.5-week course seeks to ground the emerging discipline of biomimicry as a continuation of our ancestral connection with nature. Human-Nature Connection engages participants in an exploration of the meaning and value of connecting with nature. Topics include defining humans, nature, and our connection with nature; establishing the evolutionary, personal, and sociocultural influences on the different expressions of this connection; and illustrating the relevance of biomimicry to the human-nature

connection.

Faculty: Baumeister, T.

### **Topic: iSites BMY 598 | 1 Credit**

The iSites: Biomimetic Nature Journaling course offers a kick-start to the lifelong practice of nature journaling with a biomimetic intention. Tutorials for becoming a biomimetic nature journalist include drawing techniques, materials selection, and development of observation skills. A series of nature journaling assignments are designed to offer a variety of approaches to nature journaling while also requiring that getting outside and into the natural world becomes a very comfortable experience and a source of inspiration. It is important to understand that this course will require going outside for 30 minutes on a daily basis for the 6 or 7.5 weeks (depending on semester taught) of the course and participants should plan accordingly.

Faculty: Rovalo, E.

### **Topic: Communicating Biomimicry BMY 598 | 1 Credit**

The ability to articulate the practice and potential of biomimicry to a wide variety of audiences across many disciplines, venues, and situations is a critical skill for a biomimic. This course develops this skill through a wide variety of exercises, training, and feedback. Students will learn how to develop visual, written, and auditory presentations and how to customize those for different kinds of audiences and situations, including cross-disciplinary applications and public and organization-specific settings. Students will assemble course deliverables into a portfolio demonstrating their communication skills.

Faculty: Baumeister, D.

### **Topic: Teaching Biomimicry BMY 598 | 1 Credit**

The ability to teach the practice of biomimicry to a wide variety of audiences across many disciplines, venues, and situations is a critical skill set. The Teaching Biomimicry course develops these skills through a wide variety of exercises, training, and feedback. Students learn how to create and execute meaningful learning experiences in biomimicry. Students will assemble course deliverables into a portfolio demonstrating their teaching skills. The course is structured more heavily towards feedback rather than lectures.

Faculty: Baumeister, D.

### **Biomimicry Virtual Design Lab BMY 530 | 2 Credits**

This practicum is designed to allow participants to dive deep into the biomimicry tools and resources presented during the program and to apply them selectively to a specific and unique opportunity of the student's choosing. Projects should have a meaningful outcome achievable within the semester and should engage the scoping, discovering, creating and evaluation phases of Biomimicry Thinking. Deliverables are milestone-based, and the final deliverable should have application in a real-world setting.

Faculty: Fehler, M.

### **Biomimicry Case Study Practicum BMY 580 | 2 Credits**

This practicum is designed to dive deep into the business case for biomimicry, by doing an in-depth case study analysis of a specific biomimicry innovation. Each individual will select (or identify), research, and write up a case study from the business perspective. By deeply investigating a biomimetic innovation, students gain an understanding of how biology, design, engineering and business merge together in biomimicry to culminate in a successful solution. Some of the key tools in biomimicry, such as biomimicry thinking and Life's Principles, are woven into the case study content, deepening the students'

understanding of biomimicry.

Faculty: Chirazi, J.

### **BioBrainstorm Practicum** **BMY 580 | 2 Credits**

This practicum is designed to allow participants to dive deep into the specific biomimicry tools and techniques of a BioBrainstorm. Working in teams, each team will identify a challenge, discover relevant strategies from the biological literature, interpret and translate the scientific information including creating illustrative graphics, summarize the findings, build a taxonomy, and learn how to present the information in a biomimicry context so that it is relevant to design.

Faculty: Allen, K.

### **Biomimicry Genius of Place Practicum** **BMY 580 | 2 Credits**

This practicum is designed to allow participants to dive deep into the specific biomimicry tools and techniques of a Genius Place. During the 7.5-week period, each team will identify a biome of interest, research place-specific strategies from the biological literature for that biome, interpret and translate the scientific information including creating illustrative graphics, summarize the findings, build a taxonomy, and learn how to present the information in a biomimicry context so that it is relevant to place-based design.

Faculty: Bourgeois, M.

### **Topic: Book Club** **BMY 591 | 1 Credit Seminar**

Optional 1 credit course that is designed to specifically help students who are required to be enrolled in 5 credits per semester for financial aid reasons. Structured like an online book club. Reading and analyzing books to then work collaboratively to write a synopsis. This course is open to anyone who is interested, however, **it does not count toward the 30 minimum credits to complete the program.**

Faculty: rotating

### **Biomimicry Portfolio** **BMY 590 | 1 Credit Seminar**

BMY 590 Biomimicry Portfolio is a 1 credit course designed to assist students in finalizing their digication portfolio, their Faculty Portfolio Review presentation, synthesize their work, and explore post-graduation options, including reviewing their biomimicry competencies. This dynamically dated 8-week course is offered in the middle of each semester (weeks 4-11 in Fall/Spring, and weeks 2-9 in summer). It is only open to students in their last semester and is optional. It does qualify for the 1 credit needed for enrollment in your graduating semester. It is pass/fail. **It does not count towards the 30 credits for graduation.**

### **Course Materials**

Most courses rely on electronic resources, limiting the number of book purchases you need to make. The following will be required in your courses.

[Biomimicry Resource Handbook](#) by Dayna Baumeister

A digital version will be available to you through Canvas as part of your enrollment in BMY 501. However, most students prefer to have their own soft copy version, which you can order through Biomimicry 3.8.

[Exploring The Way Life Works](#) by Mahlon Hoagland and Bert Dodson

This book or the earlier edition will be a valuable reference in BMY 503 as well as many other courses.

[The Way Nature Works](#) by Macmillan Publishers

This out of print book can be found used through many online bookstores. It is also an incredibly valuable reference book that you will want to have on your shelf.

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## Plan of Study (iPOS)





The [interactive plan of study](#) (iPOS) is the student's official contract between the department and the university. It lists all the classes the student plans to take to complete the degree. The academic unit's graduate support staff should be the primary contact regarding iPOS and degree requirements. It contains certain degree requirements such as core and elective coursework, as well as practicums that must be included before it can be approved.

**Students must have an approved iPOS within their first semester. If there is not an approved iPOS an Advising Hold will be placed on the students account until this is completed. An Advising Hold will prohibit the student from enrolling in courses.**

Advisory committees should consist of the following: Dayna Baumeister as Chair, Karen Allen as Member, and Michelle Fehler as Member.

While completing the iPOS, keep in mind that this is a "plan" for completing program requirements and changes, most likely, will need to be made in future semesters. **A student is not eligible to apply for graduation without an approved iPOS.**

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 your My ASU > My Programs > Biomimicry > iPOS > Graduate Interactive Plan of Study (iPOS).

<b>My Programs</b>	
<b>Programs</b> Graduation   Find Programs	
<b>Biomimicry (MS)</b>	
<b>Degree Information</b>	
<b>iPOS</b>	
<b><u>Graduate Interactive Plan of Study (iPOS)</u></b>	

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. There is a link that provides step-by-step instructions on how to submit your iPOS.

The Biomimicry Center requires that students file an iPOS no later than the end of your second semester, and are encouraged to do so in their first semester to ensure a successful journey and order of classes. If there are changes that need to be made we will email you with instructions on what to do.

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.

### Duration of Program

Full-time graduate students could aim to finish a master's program within 5 semesters (about 2 years). However, **the program is designed for working professionals, who likely will be taking just 3-4 credits/semester (which we highly recommend)**. In this latter case, you can expect up to 10 semesters (3 ½ years) to graduate. You have six years to complete your MS degree.

Students pursuing the Graduate Certificate can expect to finish in as few as three semesters (including summer), taking one class per semester, but if continuously enrolled may take up to five semesters.

### Recommended Plan of Study for Graduate Certificate

The following is more specific information regarding the recommended (and in some cases required) ordering and timing of courses. This information should be taken into consideration when building an iPOS. Under current policy, these are the only courses open to Certificate students.

**BMJ 501** This course should be taken first, ideally before all other courses, but co-enrollment with BMJ 502, BMJ 503 and BMJ 504 is possible.

**BMJ 502, BMJ 503, and BMJ 504** These courses can be taken in any order depending on when you begin your studies at ASUOnline. We recommend taking these courses in sequential semesters.

**BMJ 530** For graduate certificate students, completion of BMJ 501, 502, 503, and 504 is required before enrolling in BMJ 530 (VDL) (this is your culminating class). You can petition for co-enrollment in 530 and your final course, but only in extenuating circumstances will an exception be granted.

### Recommended Plan of Study for a Master's degree

The following is more specific information regarding the recommended (and in some cases required) ordering and timing of courses. This information should be taken into consideration when building your iPOS. Please note that the classes are scheduled to accommodate part-time enrollment. We encourage people to complete their studies on a half-time basis in order to experience the highest quality the program has to offer. You are allowed to move along faster, however, each course, with the exception of BMJ 530, is offered only once a year.

**Please double check these prerequisites before enrolling in a course. Just because the registrar permits enrollment, does not mean the program will allow it.**



**BMY 501** This course should be taken first, ideally before all other courses, but co-enrollment with BMY 502, BMY 503 and BMY 504 is possible.

**BMY 502, BMY 503, and BMY 504** These courses can be taken in any order depending on when you begin your studies at ASUOnline. However, we highly recommend that these courses be taken as early in the program as possible and ideally before any electives are taken, as they form the foundational work for these electives. Additionally, these are intense courses and you will get the most out of them if they are the only course you are taking in a given semester. While this is preferred, specific recommendations for each elective are below.

**BMY 511** BMY 504 is a required prerequisite unless written exception by the instructor.

**BMY 512** BMY 502 and BMY 504 are required prerequisites before taking this course.

**BMY 516** BMY 502 and BMY 504 are required prerequisites before taking this course.

**BMY 517** No prerequisites.

**BMY 598** Biomimicry and Chemistry. BMY 504 required prerequisite. BMY 502 and BMY 503 recommended, but not required.

**BMY 598** Biomimicry Ethos. Ideally, BMY 517 is taken prior to this course. Recommended, not required.

**BMY 598** Topic iSites. No prerequisites, although if you've taken BMY 502 or 503 first you'll understand more of what you observe during your assignments.

**BMY 598** Topic Communicating Biomimicry. BMY 501, 502, and 504 required prerequisites (or co-enrollment with permission). BMY 517 and BMY 598: Ethos recommended.

**BMY 598** Topic Teaching Biomimicry. BMY 501, 502, and 504 required prerequisites. BMY 503 and BMY 598 iSites recommended.

**BMY 530** This is a self-designed practicum, and as such, it is highly recommended that this be in your last semester. BMY 501, 502, 503 and 504 are prerequisites. MS students are eligible to take this course after they have completed at least 20 credits of their program.

**BMY 580** Biomimicry Case Study Practicum. BMY 516, not required, but recommended prerequisite or co-enrollment. It could be completed earlier in the program.

**BMY 580** BioBrainstorm Practicum. BMY 503 and BMY 504 required.

**BMY 580** Genius of Biome Practicum. BMY 503 and BMY 504 required. BMY 512 recommended.

## Expected Course Workload

The amount of workload in a given week corresponds with the number of credits you are enrolled in. **A good rule of thumb is 3–4 hours/week/credit enrolled.** This is an average, and some weeks will have more or less. If it is a subject you have less familiarity in, or if English is a second language, please anticipate spending more hours/week.

**Keep in mind** that 1 credit in a 7.5 week semester is the same workload as 2 credits in a 15 week semester. Likewise, a 2 credit 7.5-week course has the same workload as a 4 credit 15-week course. BMY 504 and BMY 516 are compressed into 12 weeks during the summer, in which case you can expect a minimum 4–5 hours/credit/week for those 12 weeks.

Each course is asynchronous, with no set meeting times, but you will have weekly expectations. Almost all weeks will have weekly assignments to turn in as well as forum participation. Additionally, there are required videos and readings. Most courses incorporate some assignments that require team participation.

## Academic Calendar

It is the student's responsibility to know and regularly check deadlines. ASU Online regularly offers classes in the fall, spring, and summer terms with the following components:

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

Note: The Biomimicry program treats the summer semester similar to Fall and Spring. We expect that students stay enrolled and engaged in classes for all semesters. To view the full academic calendar, visit: [Academic Calendar | ASU Students | ASU](#)

## 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.

Adding a class after the drop/add deadline is considered a [Late Add](#) and requires instructor, department and college approval.

Policies and procedures for late adds vary by college/school, click [here](#) for detailed instructions.



## 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.

Courses for which the deadline to register has passed are marked in the schedule of classes by a red "add" button.

When this button is selected, students are directed to a page that prompts them to select the appropriate link for the college offering the course. The link connects the student to a customized page with step-by-step instructions on how to request a late add for that particular course. Policies and procedures vary by college/school. See the list below for detailed information and instructions.

For specific policies and instructions on late registration, visit:

[Late Registration Graduate | ASU Students | ASU](#)

[Late Registration Global Futures](#)

## Finances

### Cost

**The cost of this program is \$872 per credit hour, which includes program fees and tuition.**

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.

Additional tuition information (including the tuition calculator): [Tuition | ASU](#)

### 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.

You can find information about financial aid from The Biomimicry Center here: [Financial Support](#)

Additional Financial Aid information can be found at [Applying for Aid](#)

Financial Aid Contact: 855-278-5080 (toll-free)

Financial Aid for International Students: [Financial Aid for International Students](#)

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## Assistantships

Students with regular admission to a graduate program in Biomimicry, as well as proof of citizenship or right to work in the US, are eligible to apply for Graduate Research or Graduate Service Assistantships.

### *Research Assistants/Associates (RAs)*

A graduate research assistant is a student appointed part-time by the university whose primary responsibilities are research related. Graduate research assistants may assist faculty members in research and creative activities, perform administrative or editorial duties directly connected to research and creative activities, develop and evaluate instructional materials and/or curricula, or assume responsibilities for a designated research area under the direct supervision of a faculty member. **Research Assistantship appointments are available as projects are available.** Research assistantships are awarded on a competitive basis and are funded by The Biomimicry Center.

### *Graduate Service Assistant (GSA)*

We regularly hire GSAs to serve in the capacity of grading review and assistance for courses. In order to qualify, you must have completed the course in question, and been recognized by the instructor as a good candidate. You will be directly contacted by the faculty to confirm mutual interest. While many of the general policies and expectations also apply to graduate service assistants and graduate interns, GSAs and interns are not bound by the same eligibility requirements as TAs and RAs and do not receive the same benefits as TAs and RAs (e.g., tuition remission).

This handbook describes the general roles and responsibilities of TAs and RAs as well as policies regarding their supervision and evaluation. [TA-RA Handbook](#)

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## Once you are enrolled:

### 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!

### 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", or "W" 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.

For MS students in the BMY program, you **must earn a B+ or better in 502, 503, and 504. [This requirement does not override any other terms noted in your acceptance letter - conditional admittance]**. If you earn a grade lower than a B+, then you have the option to repeat the course, or to apply for and transfer to the graduate certificate program. You will not be eligible to graduate from the MS program without meeting the B+ or better requirement for 502, 503, and 504.

For MS students in the BMY program, in addition to the portfolio requirements, you **must also earn an A- or better in all three of your practicum courses** as part of the requirements to pass your portfolio (culminating experience). If you earn less than an A-, then you will be put on academic probation and have the opportunity to repeat the practicum or take the fourth practicum as a substitute.

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."

### **Auditing a Course**

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 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. You can find information about which unit offers a course by clicking "Full Class Details" on the course in the course search tool and you will see the unit next to "Offered by".

It is recommended that this process 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 [Dean of the college](#).

### **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.
  - The iPOS GPA is calculated from all courses that appear on the student's approved iPOS.
  - 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. Satisfy the maximum time limit for graduation from the student's Graduate Degree Program (six years



for master's.).

4. Successfully complete the culminating experience of a portfolio (i.e. satisfactorily complete three practicums with an A- or better, plus the completion of the Digation Portfolio and presentation requirements).
5. Graduate students must stay continuously enrolled in their Degree Program. Failing to do so without a Graduate College-approved Request to Maintain Continuous Enrollment (pg. 34 for more information on continuous enrollment requests) 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.

Full Graduate College Policies and Procedures: [Graduate Policies and Procedures](#)

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. Programs and individual faculty, in addition, may use progress determinations to inform funding decisions.

**All graduate students must enroll 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. If no additional credit is required toward the degree, the student may enroll in BMY 591 (this course will not count towards your degree requirements) or petition for continuous enrollment (see below).

**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.

### Academic Probation and Dismissal Process

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 by their program when placed on probation and may be required to complete a probation agreement with Mary Kivioja and Dayna Baumeister. 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](mailto: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:

1. 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.
2. 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.
3. 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).
4. 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.

### Request to Maintain Continuous Enrollment (Leave of Absence)

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 and select 'Add Petition'. From the drop down menu, select 'Leave of Absence'. Fill out the form and submit it.

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.

### 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's transcript as well as in all GPA calculations.

### 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.

### 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](mailto: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](#)

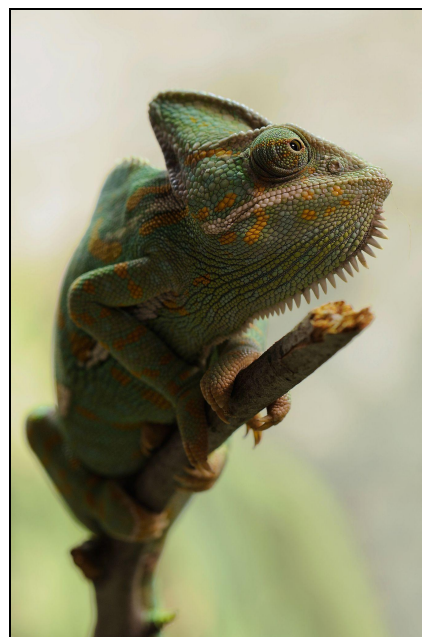
### Withdrawing from a program


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.

**Please refer to the [Tuition Refund Policy](#) to determine if dropping or withdrawing from classes will generate a tuition refund.**

### 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. 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.

### Tuition Refund Deadlines

The withdrawal deadlines are not the same as the tuition refund deadlines. It's important for you to know both deadlines if you plan to withdraw from a course/program and want a refund on your tuition. This information can also be found on the Academic Calendar <https://students.asu.edu/academic-calendar> for standard session A, B, and C courses, but sometimes the dates are different for dynamic dated courses.

### 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.

You may request a complete session drop/withdrawal by signing into [My ASU](#), clicking on the "Registration" link in your My Classes box, and selecting "Drop/Withdrawal."

### How to drop/withdraw from a class

You may remove a class from your current schedule by dropping/withdrawing from it up until the appropriate deadline for that class. You can request a drop/withdrawal from a class by signing into [My ASU](#), clicking on the Registration link in your My Classes box, and selecting Drop/Withdrawal.

**Please refer to the [Tuition Refund Policy](#) to determine if dropping or withdrawing from classes will generate a tuition refund, first.** The timing of when you make your request determines whether it is a drop or a withdrawal.

#### *Before the drop/add deadline*

A drop/withdrawal request made prior to the drop/add deadline for your class will be considered a drop. A drop will remove the class from your current schedule with no record of your enrollment in the class on your official transcript.

#### *After the drop/add deadline*

A drop/withdrawal request made after the drop/add deadline for your class will be considered a withdrawal. A withdrawal will remove the class from your current schedule and will result in a grade of 'W' on your official transcript. The grade of 'W' has no impact on your GPA.

### 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.

For information about these types of withdrawal, please visit: [Drop/Add and Withdrawal](#)

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

### Enrollment Request Forms

The University Registrar Services Office has a resource page for various forms that you may need such as personal record forms, academic record forms, class registration, etc. You can find those here: [University Registrar Services](#)

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## Once you're close to graduating:

### Degree Completion

#### Culminating Experience

The culminating experience for the MS degree consists of the completion of 3 of the 4 Practicum courses and the presentation of your Digication Portfolio. For the graduate certificate, the culminating experience is the successful completion (a grade of B+ or better) of BMY 530. These are original works of research and scholarship performed at the graduate level.

#### Digication Portfolio Requirement

**All students enrolled in the Biomimicry MS program are required to build a digital portfolio** using the ASU

Digication platform. Your portfolio will be an online resume of the work and projects that you complete during your studies at ASU. It will be a tool to highlight your accomplishments, projects, and skills— including classwork, teamwork, communication, creativity, and problem-solving. A best practice for curating an engaging digital portfolio is to work within your portfolio during multiple points throughout the degree process. At a minimum, you should update your portfolio at the end of each semester (uploading your best work from the semester is a required assignment for most courses).



#### reating Your Digication Portfolio

The digital portfolio template is available to you in the "Digication" tab initially in BMY 501 and accessed via MyASU after. You will need to create your personal digital portfolio from the provided Biomimicry Template. Ultimately, your digital portfolio will reflect the amount of effort and thought that you put into it— so take this time to showcase your passion and goals!

**Please make sure that your digication portfolio is complete before submitting the URL. This means:**

- 1 All core courses and practicums you have taken have project descriptions written, 1-2 paragraphs of reflections, and 1-2 examples of work including the final reports for the practicums.
- 2 At least 3/4 of your electives have a page with the equivalent information.
- 3 Your landing page and About Me pages are filled in and updated.
- 4 You have hidden or deleted courses you did not take.
- 5 You have ample evidence of each skill in the Biomimicry Skills section. The best evidence includes specific pages from reports that demonstrate that skill, personal reflections on that skill as a deep pattern across the program, specific feedback gleaned from peers, graders, and faculty that speaks specifically to that particular skill.
- 6 For fantastic examples of what a very strong Digication Portfolio looks like see:
  - [Amanda Nummy](#)
  - [Lisa Skiles](#)*\*you must login to your MyASU to view these*

Once you have created your digital portfolio and personalized it with your information, please title as follows: FirstLast\_BiomimicryPortfolio.

For more information on how to create and set up a portfolio, you can access tutorials [here](#). One example of a complete portfolio can be found [here](#).

### **Saving, Publishing, and Submitting Your Digital Portfolio in Courses**

In each course, you will be required or encouraged to submit specific assignments (or ones of your choosing) to your digication portfolio. Regardless of any course, it is entirely up to you what you wish to add to your portfolio so that it best captures your skills and talents as an emerging biomimic. It is highly recommended and encouraged that you incorporate any feedback received from instructors on any submission and submit an even better piece to your portfolio, even if the course has finished.

The Digication platform automatically saves all work but saving and publishing are two different concepts. "Saving" captures any new text or media and occurs automatically. "Publish" means that the work you have added is ready for others to view, a larger audience than yourself. When you publish, it allows your instructors to see what you have accomplished (or any privacy setting you set). To publish any page, scroll to the very top of the page and select the publish pages button. To publish all pages, select the three-line hamburger in the top right corner of the portfolio then select publish all pages. From here you can green check all pages and publish them. *You will need to publish pages or the entire portfolio every time you have finished adding new work.*

For specific questions or if you need technical assistance, you can contact Digication 24/7 year round at [support@digication.com](mailto:support@digication.com) or 1-888-342-DIGI (3444).

### **Submitting Your Digication Portfolio:**

One month (30 days) before your planned graduation, you must submit via email a link to your portfolio to Mary Kivioja ([mkivioja@asu.edu](mailto:mkivioja@asu.edu)). Your portfolio will be assessed on the following [criteria](#):

- Clear demonstration of the MS program learning objectives, namely the ability to:
  - Facilitate the integration of Biomimicry Thinking and Life's Principles into a business, design, or engineering opportunity resulting in sustainable biomimetic outcomes or nature-inspired solutions though:



- Discovering and interpreting biology with a functional lens for design applications, including abstracting design principles from biological observations (scored 1-5)
  - Communicating biomimicry principles and philosophies effectively through written, verbal and visual means (scored 1-5)
- Commendable examples of at least three of the following four skills (see rubric [here](#)):
  - Transdisciplinary collaboration (scored 1-5)
  - Creativity and innovation (scored 1-5)
  - Effective and compelling communication (scored 1-5)
  - Critical problem solving and systems thinking (scored 1-5)

You must receive an average of at least 3.5 or better to successfully pass the portfolio. An assessment of less than 3.5, but greater than 2.5 will include remedies to be undertaken for resubmission towards graduation. A score of less than 2.5 will be ineligible to graduate.

The Program administration will confirm prior to your Portfolio Faculty Review (PFR) completed program requirements:

- B+ or better in 502, 503, and 504 (A- or better if conditionally admitted to the program)
- A- or better in all 3 practicums
- Presumably, you are completing your last practicum in your last semester. The program will reach you to your professor to affirm satisfactory progress towards completion.
- 3.0 GPA or higher

### Portfolio Faculty Review (PFR)

Your portfolio faculty review meeting is designed to celebrate your accomplishments. It will be a live, virtual one-hour event open to the BMY community and guests of your choosing.

- Notify your advisor of your intent to graduate that semester by reaching out to Mary Kivioja (mkivioja@asu.edu)
- You will receive an email one month before graduation with a spreadsheet. Here you will choose a date and time for your PFR. Times available are first come, first serve. You will also paste the link to your digitization portfolio.
- You will be sent a Zoom link. This link will also be in the spreadsheet.
  - The Zoom meeting will be set up so that you are the host. This will allow you to let people in, create the breakout room for your committee, and screen share.
  - You will record your presentation and add the link to the spreadsheet.
- Prepare a presentation for your PFR
  - The presentation should tell a story/journey (remember who your audience is/ you don't need to explain BMY or the classes w/in the presentation). Remember to work with a lot of engaging visuals to evoke emotions in your audience and to support what you are trying to say.
  - Components of the presentation should include:
    - how you got here/brief background
    - reflections on what you learned/how you have evolved in your worldview/perspective through this program. This section should respond to your perceived ability to:
      - Facilitate the integration of Biomimicry Thinking and Life's Principles into a business, design, chemistry, engineering, or social innovation opportunity resulting in sustainable biomimetic outcomes or nature-inspired solutions, particularly through:
        - Discovering and interpreting biology with a functional lens for design applications, including abstracting design principles from biological observations



- Translating and communicating biomimicry content, principles, and philosophies effectively through written, verbal and visual means
- Commendable examples of at least three of the following four skills:
  - Transdisciplinary collaboration
  - Creativity and innovation
  - Effective and compelling communication
  - Critical problem solving and systems thinking
- Where are you going next?
- What's your "tagline" for your work going forward, i.e. how do you want to be seen in the world?

## PFR Event Structure

- Introduction by program director
- 20-minute presentation by the student
- 5-10 min Q&A by all participants
- Create a breakout room for your committee
- 10-15 minute discussion amongst faculty
- Committee returns; 10 minutes of feedback/responses/replies

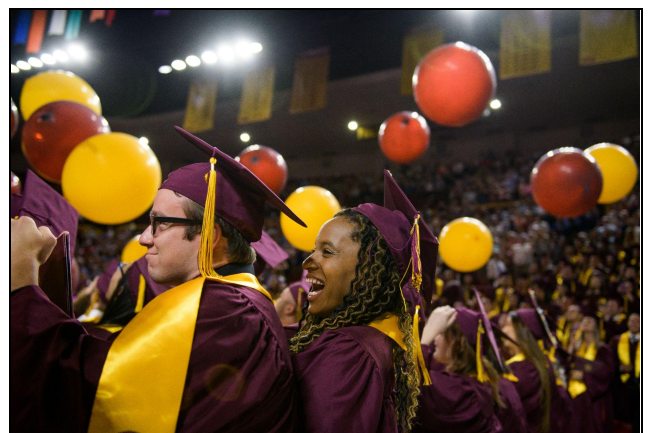
Assessment by your faculty committee does not follow a rubric, but rather is designed to affirm that you are set up for success in your future endeavors. The faculty does have the opportunity to recommend a remedy if there is a significant gap in a student's performance/abilities, e.g. repeating a class or doing an independent study project to address that weakness. Mostly this is a time to reinforce your strengths and offer suggestions and recommendations on a fruitful path forward. The PFR should be taken seriously by the student but is also a celebratory milestone.

Within 1 week after your PFR, you will receive an email from Dayna Baumeister that will include your grade for the digication portfolio, feedback, and any changes/edits that she suggests. Once a grade is given, the advisor will update the Graduate Portfolio Milestone in your iPOS. This lets the Graduate College and Graduation Office know you have met all requirements for

## Graduation

**Every student is required to apply for graduation in the semester in which they plan to complete their program.** 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 [Completing Your Degree | Graduate College](#).



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.

In order to ensure you can graduate successfully **you must have an approved iPOS**.

**Receiving an official degree or certificate.** Once the Registrar's Office confers your completion of the MS program, students will be mailed their official degree. This takes anywhere between 8–10 weeks. For certificate students, there is no official paper stating your graduation but you can request a transcript which will show that you have successfully completed the certificate program.

### **Awarding of a Graduate Certificate**

A student will be eligible for the official posting of the graduate certificate to their transcripts when all applicable coursework has been successfully completed and the office for the Graduate College scholarship requirements have been met. Students must submit an iPOS for the graduate certificate program, and apply for graduation. The Biomimicry Center prints paper certificates since ASU does not send their own. We will send you a certificate after you graduate. If you do not receive one, please contact us.

### **ASU Transcripts**

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

### **Career Services and Internships**

The College of Global Futures has a career advisor dedicated to helping the college's degree-seeking students discuss career options and perform company and occupational research. The advisor also assists with resumes and cover letters, interview preparation, job search strategy, and other employment-related topics. Full time opportunities are communicated through the School of Complex and Adaptive Systems internal LinkedIn group, which you are strongly encouraged to join. Additional employment, internship, career fair, and mentorship opportunities are available through ASU's career resource, Handshake.

Graduate students can also pursue internships, either for elective credit or no credit. There are many local sustainability internship opportunities posted on [SustainabilityConnect](#). These have been curated for the undergraduate sustainability program, but are open to any College of Global Futures student.

The school also offers a Job SHARE Program, which allows students to shadow alumni in their jobs for a day. Information is sent out in fall and spring to students about how to participate in the program.

To book an appointment, please visit the [College of Global Futures Advising](#) site.

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## **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

[University Academic Success Programs](#). Students can make appointments through the website or by calling 480-965-9072.

Tutor Search: [Tutor Search](#)

Students can use this tool to search by course what online tutors work during what time for their specific class

## 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 6 pm.

## Technical Support

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

## ASU Help Center

Visit [contact.asu.edu](https://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 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.

## 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.

### Other common questions and answers

*Do I need a computer? Can I access my courses from a mobile device?*

You will need a desktop or laptop computer to access your classes. A mobile device will not provide the access and functionality necessary for ASU Online courses.

*Do I need high-speed internet?*

Yes. Most ASU Online courses use multimedia tools that are best viewed with high-speed internet, so having the proper connection is essential. It is also important to have a reliable internet connection at home, or at a place where you can access the internet on a consistent basis. We also recommend having a back-up plan if your internet connection becomes unavailable, i.e. going to a library, friend/relative's house. Take this into consideration before enrolling in a fully online program.

*Are there requirements for web browsers?*

Students should have at least two browsers on their computer. Any browser will work, though preferred browsers are [Firefox](#) and [Chrome](#), which can be downloaded for free online.

*Do I need to purchase software for ASU Online courses?*

In general, course access and assignments do not require any special software; however, certain degrees may require specific software programs. In the Biomimicry programs, several courses require submissions of PowerPoint files.

ASU students have access to Google Drive (My Drive via My ASU), where they can create and share Google documents, presentations, spreadsheets and more. Students also have access to hundreds of software titles at no cost through My Apps, also via My ASU.

Learn more about My ASU [here](#).

## The ASU Disability Resource Center

The DRC 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 find more information [here](#).

You can contact any DRC office with the following information:

Phone: 480-965-1234

FAX: 480-965-0441

Email: [DRC@asu.edu](mailto:DRC@asu.edu)

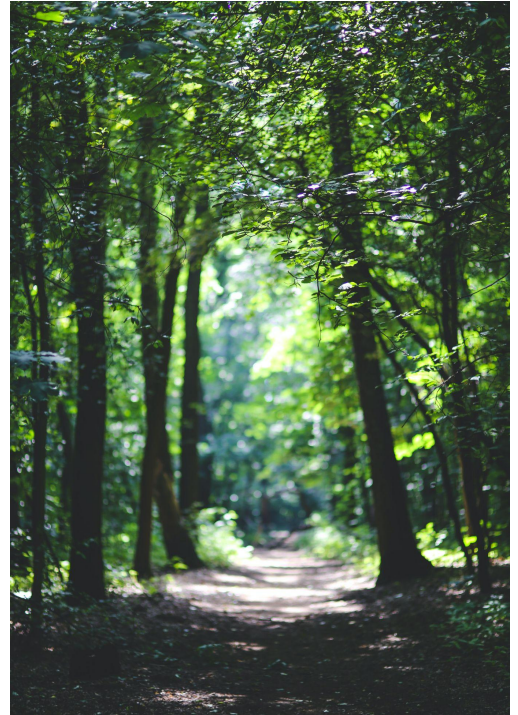
## ASU Counseling Services

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: [ASU Counseling Services](#)

## 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](#).



## Checklist of things to do: Timeline of benchmarks

- Apply to the program
- Apply for scholarships and financial aid
- Review the handbook and the FAQ page on [Biomimicry Center](#) website - understand all expectations and requirements
- Sign acceptance letter from the Biomimicry Center and return to [biomimicry@asu.edu](mailto:biomimicry@asu.edu)
- Set-up your ASU email and login/familiarize yourself with your MyASU account
- Develop your plan of study (iPOS) according to [Biomimicry course calendar](#)
- 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)
- Apply for graduation in the semester of your last course thru my.asu.edu
- Submit your portfolio for assessment
- Set up Portfolio Faculty Review
- Make sure your iPOS is fully submitted and approved
- Graduate!