



Instructors

Lecture

Section 001 (18021) In Person TR 10:30am-11:45am, Music/Theater Building (MTB), Room 1005

Prof Natalie Burls

Dept. of Atmospheric, Oceanic, & Earth Sciences

<http://cos.gmu.edu/aoes/profile-natalie-burls/>

Email: nburls@gmu.edu

Office Hours: See Section Canvas Calendar for appointment options

Section DL1 (18079) Virtual TR 1:30pm-2:45pm, Online – see Canvas Section for Zoom link

Prof Xiaojing Du

Dept. of Atmospheric, Oceanic, & Earth Sciences

Email: xdu5@gmu.edu

Office Hours: See Section Canvas Calendar for appointment options

Lab

Section 202 (18022) In Person W 4:30pm-7:10pm, Horizon Hall 1011

Section 203 (18023) In Person W 1:30pm-4:10pm, Innovation Hall 129

Section 204 (18024) In Person T 1:30pm-4:10pm, Innovation Hall 205

Mr Noah Blanco-Alcala

Email: nblancoa@gmu.edu

Office Hours: See Section Canvas Calendar for appointment options

Section 2D1 (18078) Virtual W 10:30am-1:10pm, Online

Prof Luis Ortiz

Email: lortizur@gmu.edu

Office Hours: See Section Canvas Calendar for appointment options

Learning Assistants

Ms Rachel Davis (2D1 Wednesday lab section & 204 Tuesday lab section)

Email: rdavis39@gmu.edu

Office Hours: See Section Canvas Calendar for appointment options

Mr Matthew Bucek (202 & 203 Wednesday lab sections)

Email: mbucek@gmu.edu

Office Hours: See Section Canvas Calendar for appointment options

This course is 4 credit hours (3 hours lecture plus computer-based lab)

Prerequisites

This course requires basic math skills (algebra, pre-calculus math) and high school physics. Other than use of spreadsheets, no computer programming is required.

Required Texts

Archer, David 2012: *Global Warming: Understanding the Forecast*, 2nd Ed., Wiley, ISBN 978-0-470-94341-0

This text is absolutely essential for the course and is not expensive. The bookstore has hard copies. Electronic copies can also be purchased.

Supplementary Optional Texts

Mann, Michael E. and Lee R. Krump 2016: *Dire Predictions: Understanding Climate Change*, 2nd Ed. Dorling Kindersley, ISBN 978-1-4654-3364-0

Dessler, Andrew 2016: *Introduction to Modern Climate Change*, 2nd Ed. Cambridge University Press, ISBN 978-1-107-48067-4

Course Goals and Objectives:

The main learning objectives for this course are

1. To learn why climate scientists are convinced that adding more greenhouse gasses to the atmosphere will cause the Earth's surface to be warmer than it would otherwise be.
2. To understand that climate is best thought of as "the statistics of weather" and that climate change means changes in the normal patterns of weather - warming here, cooling there; more extreme events such as droughts, severe storms, floods. This will enable you to think about how global warming might affect you or people around the world.
3. To learn how to use scientific notation and extract information from quantitative plots by focusing on units and unit analysis.

While the overall goal of this course is to give an overview of how climate change forecasting is done and its basis in the natural sciences, along the way we will

- Provide an appreciation for the history of scientific thought, especially as influenced by modern computational advances;
- Explore the nature of the scientific method of observation, theory and experiment as applied to problems of prediction;
- Introduce the methods of modern climate modeling - how models are constructed, tested, verified and used;
- Give an appreciation for the sources of confidence and uncertainty associated with climate model predictions;
- Provide a basis for continued learning and understanding climate science or the application of climate modeling results in a field such as policy, economics, social science or other natural sciences.

Tentative Class Schedule

This course will develop the scientific basis for global warming theory, and will focus primarily on Archer's textbook.

Week	Unit	Tuesday Class	Thursday Class	Lab	Readings
1 21 Jan	Introduction	Welcome and Introduction. Course outline and procedures.	Energy. How do we move it about? What is heat and temperature?	Introduction to Lab, spreadsheets and graphing: graphing temperature data	Archer Ch. 1
2 28 Jan	Energy and Radiation	Longwave and shortwave radiation. It's the stuff it encounters that is different.	The spectrum – Everything radiates	Blackbody Radiation	Archer Ch. 2
3 4 Feb	Weather and Climate	Weather versus climate Climate causes weather?	Earth's energy balance	Blackbody Radiation Continued	Archer Ch. 6
4 11 Feb	The Greenhouse Effect	How does a greenhouse work? Bare-rock planet	Pianos, kitchen sinks, etc.	What causes seasons?	Archer Ch. 3
5 18 Feb	Greenhouse Gasses and how they work	What makes a Greenhouse Gas a Greenhouse Gas?	Bending, Stretching, Atmospheric Windows	How a Greenhouse Works	Archer Ch. 4
6 25 Feb	Temperature Structure of the Atmosphere	Lapse Rate, Pressure and Altitude, Expansion and Compression and Heat	Water vapor, Heat and Convection	<i>Mid-term Review</i>	Archer Ch. 5
7 4 Mar	Review	Big picture wrap up and recap of course content so far	Mid-term Thurs, 6th of March 10:30-11:45	Modeling Greenhouse Gas Response	Archer Ch. 7
Spring Break					
8 18 Mar	Feedbacks	What is a Feedback The Ice-Albedo Feedback Water-Vapor Feedback	Cloud Feedbacks	Lapse Rate and Skin Temperature	Archer Ch. 7
9 25 Mar	Carbon Cycle	The chemistry of Carbon	CO ₂ in and out of the atmosphere	Feedbacks	Archer Ch. 8 & 9
10 1 Apr	Making the Forecast / Climate Change Projections	How are humans perturbing the carbon cycle? Fossil fuel emissions scenarios	Modeling Earth's Climate & Climate Sensitivity	The Carbon Cycle	Archer Ch. 9 & 10

11 8 Apr	Climate Changes So Far	Why is climate changing?	Human vs natural causes	Human vs. Natural Causes	Archer Ch. 11
12 15 Apr	What do we really think will happen?	Records from the distant past; Future patterns of heat, precipitation, and more	Sea level rise Tipping points and feedbacks	Modeling Climate Change	Archer Chapter 12
13 22 Apr	Climate Change Impacts and Vulnerabilities	Costs of a warming world: droughts and floods, sea level rise, wildfire...	Ecosystems, biodiversity, extinctions, Conflict, Famine, Disease	Climate Change Mythbuster Lab	NCA & IPCC Reports
14 29 Apr	There is Hope Adaptation and Mitigation Strategies	Sources of GHGs An Ethical Problem	Stopping global warming - how? <i>Last day to turn in labs</i>	<i>Final Exam Review</i>	Archer Ch. 13
13 th of May	Final Exam	10:30 am – 1:15 pm			

Course Structure and Grading Criteria:

The course grade will be based on weekly in-class participation-based assignments and quizzes (15%), weekly reading and homework assignments (20%), a mid-term exam (20%), laboratory work (25%) and a final (20%). **To allow for the typical amount of absenteeism that arises, in determining final grades, the lowest 2 participation-based quiz grades, lowest homework grade and lowest lab grade will be dropped. If you experience an unexpected life challenge that prevents you from participating in the class beyond these allowances, please notify the instructor (it is better to speak up sooner rather than later as accommodations cannot be made retrospectively).**

This class will take on somewhat of a flipped classroom style in that you will be expected to read the relevant chapter of the textbook, any other supplementary text, videos or slides, ahead of class. Only part of the class time will be dedicated to a lecture while the other part will be spent on group activities and quizzes intended to cement understanding.

Blackboard homework assignments will be assigned weekly on Monday evenings and will be due the Sunday evening of the same week. For example, your first homework assignment will be made available on Mon, Jan 20th and will be due Sun, Jan 26st. You should complete all homework assignments on your own consulting only the lecture material on Blackboard and the textbook.

This semester, there are 3 lab sections. Three of the lab sections will meet in person for ~2hours 40min. You must attend the lab section for which you are registered. Each lab will cover a chapter from *Global Warming: Understanding the Forecast*, with problems taken from the end of each chapter. You are expected to come to lab having read the week's chapter and being ready with questions about the concepts.

Late Homework Policy

As mentioned above, the weekly homework is due by the end of Sunday (11:59pm) each week. After this time, homework turned in one week late (up until 11:59pm) will receive a 25% penalty, homework turned in after this will receive a 50% penalty. All homework must be turned in by Fri, May 6th @ 11:59pm to receive credit. If

you have technical issues submitting your homework, please seek help via ITS (<https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>)

Discussion Board

A Discussion Board is provided in the **Lecture** part of the Blackboard course to allow all Instructors, students, and LAs in CLIM 102 to share information. If offered, the discussion Board will be heavily utilized by the students in the online synchronous lab section. However, all students are encouraged to regularly use the Discussion Board to post and answer questions. The Discussion Board will be regularly monitored by the LAs to answer student questions.

The following rules apply on the Discussion Board:

1. Do not post answers or copies of your work to the Discussion Board. This is a violation of the University Honor Code. Think twice before cutting and pasting!

Posts that violate the Honor Code will be flagged and removed and the author of the post will be notified. Any blatant violation of the Honor Code (e.g. student posts copy of answers) will be reported immediately to the Office of Academic Integrity. A minor offense (e.g. student accidentally provided too much information in their attempt to answer a question) will have a “three strikes rule”. If this behavior occurs three times, then the student will be reported to the Office of Academic Integrity.

2. Respect Others

Bullying, harassing, discriminatory, illegal, or other inappropriate behavior of any kind on the Discussion Boards will not be tolerated. Please be aware that all of the Instructors and LAs for this class are *mandatory reporters* regarding discrimination or harassment.

Students are strongly encouraged to utilize the Discussion Board. You will not be harshly penalized for accidentally providing too much information in a Discussion Board post. Instructors will provide gentle feedback about what constitutes too much information.

Grade Disputes

Any dispute regarding a grade on any assignment must be made in writing via email within 1-week of receipt of the grade on that assignment.

Midterm and Final with Scantron

The Midterm and Final will be multiple choice and you will need to bring a scantron sheet with you to each exam. Scantron sheets can be purchased at the Mason book store - <https://gmu.bncollege.com/School-Supplies-ArtTech/Testing-Forms/Scantrons--Blue-Books/Scantron-Forms/Test-Form/p/84333?currentCampus=366>

If the university moves to online instruction the exams will take the form of a Blackboard quiz and each student will be required to use the LockDown Browser for online exams. Watch [this short video](#) to get a basic understanding of LockDown Browser. A [Quick Start Guide for Students](#) is also available.

Makeup Exams

Students must be present to take the mid-term and final exam. A make-up exam will be given only in the case of an emergency. Documentation of an emergency must be provided. The student must notify the Instructor within 24hrs of the exam to schedule a make-up. No make-up of the mid-term exam will be given once the answers have been discussed in class. **The final exam will only be given during the official day and time. The final**

exam cannot be given at any other day/time for reasons other than official Mason Business or a documented medical emergency. If another GMU final has been scheduled at the same time as your CLIM 102 final please email Prof. Burls at least 1-month prior to final exams.

Incomplete

An incomplete grade may be given to students who are passing a course but who may be unable to complete scheduled coursework for a cause beyond reasonable control (see GMU's academic policies for grading). If you wish to take an incomplete for this class, you must make a request in writing to the instructors of both Lecture and Lab and meet with both to discuss the situation and plan for completion of the coursework by the required deadline.

Extra Credit

Extra credit may be given at times at the discretion of the instructors. Students should not expect extra credit. Extra credit opportunities will not be given by student request. If you complete the assignments, you should not need extra credit.

Lab Specific Policies

Lab Due Dates

Lab due dates are based on your assigned lab section as follows:

Lab Section	Meeting Day	Due Date
202	Wed	Tues @11:59pm
203	Wed	Tues @ 11:59pm
204	Tue	Mon @ 11:59pm
2D1	Wed	Tues @ 11:59pm

A 24-hour grace period will be allowed to accommodate technical issues. After this time labs are considered late and grade deductions will follow the late lab policy.

Late Lab Policies

One day late (up until 11:59pm+24hr grace period the following day): 25% penalty

After 2-day late: 50% penalty

All labs must be turned in by Fri, April 26th @ 11:59pm to receive credit.

For all lab sections, the final lab (Lab #12), involves group presentations and is not eligible for late credit.

Group Work

- All lab sections are synchronous lab sections and therefore the labs will be completed in groups.
- The maximum group size will be determined by the Lab Instructor based on the number of students
- Groups may change throughout the semester at the discretion of the Lab Instructor.
- All group members must be present in lab class to participate in group lab reports. If a student is assigned to a lab section and they do not attend lab class, they must complete the lab and submit their report independently.
- All group members must participate in the completion of the lab and will receive the same lab grade.
- All group members must indicate individual contributions to the lab next to their name at the beginning of the lab report.

- Any dispute over a group member's participation in the lab must be made in writing within 24 hours of lab submission. Each group member must provide a written description of the contribution to the lab of all group members. To resolve the dispute, each group member may be required to provide an email record of their contribution to the lab to the Instructor.

How to be successful in this class

1. Attend class and lab regularly – note that in-class quizzes make up 15% of your grade and you may miss important information regarding the lab if you do not attend.
2. Read the Archer textbook chapters – the homework and labs are based on the text
3. Complete all assignments and labs – we assign homework to give you practice with the course material, the lowest homework grade will be dropped. This means that if you do poorly on one assignment, it does not impact your grade. If do poorly on 2 assignments, you can still recover because there are several more assignments across which you can improve your grade.
4. Complete and turn in all lab reports – a zero for an assignment has a big negative impact on your grade. Some points are better than no points.
5. Complete all work on time – late labs and homework have point deductions
6. If you do poorly on a homework or lab, this is the first indication that you need help. If you get help right away, your grade can recover before it is too late. *Please make use of the Learning Assistant assigned to this class*, who will hold regular office hours.
7. Ask questions in lecture and/or lab. If you still do not understand something, contact the LAs or Instructors, post on the Discussion Board, or attend the online Office Hours.

Emergencies and Extenuating Circumstances

The class grading policies are designed to accommodate emergencies and extenuating circumstances. Specifically, the lowest lab, homework, and quiz grade will be dropped and labs can be turned in late (with penalty). Therefore, no special accommodations will be provided for lab, homework, or quizzes due to a short-term emergency or extenuating circumstances. If a student has a significant issue that extends beyond one week of class (e.g. 1 homework, 1 quiz, 1 lab), students are encouraged to come to office hours to discuss any specific issues and/or seek assistance from the appropriate student services (e.g. Office of Disability Services, Counseling and Psychological Services, Academic Advisor).

Grading Schema

Grades Scored Between	Will Equal
95 % and 125 %	A+
85 % and Less Than 95%	A
82 % and Less Than 85%	A-
78 % and Less Than 82%	B+
75 % and Less Than 78%	B
72 % and Less Than 75%	B-
68 % and Less Than 72%	C+
65 % and Less Than 68%	C
60 % and Less Than 65%	C-
55 % and Less Than 60%	D
0 % and Less Than 55%	F

Important Dates

Please see the university calendar [https://registrar.gmu.edu/calendars/spring_2024/] for drop dates with and without a tuition penalty.

Late Registration and/or Add

Students who register or add the course after the first assignments are due, are responsible for making up all materials and assignments that they have been missed. The student must:

- Meet with the course Instructors and discuss the plans for revised assignment due dates.
- Agree *in writing* with the Instructor regarding the due dates for missed assignments.
- Failure to do so may result in grading penalties or a zero on missed assignments.

Accommodations for Disabilities

If you have a documented learning disability or other condition that may affect academic performance you should: 1) contact the Office for Disability Services (SUB I, Rm. 4205; 993-2474; <http://ods.gmu.edu>) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

In addition to providing me with the appropriate form, please take the initiative to discuss accommodation with me at the beginning of the semester and as needed during the term. Because of the range of learning differences, faculty members need to learn from you the most effective ways to assist you. If you have contacted the Center for Disability Services and are waiting to hear from a counselor, please tell me.

Academic Integrity

GMU is an Honor Code university: It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows: "To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University

community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work.” More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at <http://oai.gmu.edu>

The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: your work is your own, when you are responsible for a task, you will perform that task. When you rely on someone else’s work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

Some kinds of participation in online study sites violate the Mason Honor code: these include accessing exam or quiz questions for this class; accessing exam, quiz, or assignment answers for this class; uploading of any of the instructor’s materials or exams; and uploading any of your own answers or finished work. Always consult your syllabus and your professor before using these sites. Using AI tools such as ChatGTP to answer homework and test questions is prohibited.

Privacy

Students must use their Mason email account to receive important University information, including messages related to this class. See <http://masonlive.gmu.edu> for more information.

Cell Phones & Laptop Computers

Laptops, tablet computers, and cell phones can be used for completing participation quizzes in class. Outside of being used to take participation quizzes these devices should not be used, unless needed for note taking (pen and paper note taking is however recommended to prevent distractions and help you concentrate on the lecture). Note all slides from a class will be uploaded to Blackboard. Cellphones must be turned off or on vibrate. Engaging in activities not related to the course (e.g., gaming, email, chat, etc.) is not permitted. Please do not take calls or text during class.

Mason Core Learning Objectives:

This course covers all 5 of the Mason Core Natural Science learning goals:

1. Understand how scientific inquiry is based on investigation of evidence from the natural world and how scientific knowledge and understanding evolves based on new evidence and differs from personal and cultural beliefs.

We cover the role of observation and theory in guiding the formation of models and how the models are tested against those observations. We study the role of additional paleo and historical data and how models are re-evaluated and tested against new evidence.

2. Recognize the scope and limits of science.

We distinguish between the science of climate and the applied science of actually making forecasts, the difference between empirically verified forecasts and experimentally verified theory.

3. Recognize and articulate the relationship between the natural sciences and the application of science to societal challenge.

Global warming is one of the leading drivers of societal change, we explore the role of science in attempting to forecast the climate, and how those forecasts interact with social change. We look at what the models imply for adaptation and mitigation strategies, and we look at how social sciences and economics might draw information from climate models.

4. Evaluate scientific information (e.g. distinguish between primary and secondary sources, assess credibility and validity of information)

We spend a significant amount of time on assessing the credibility of climate and Earth system models.

5. *Participate in scientific inquiry and communicate the elements of the process*

The lab sessions are designed to guide students through model simulations that require careful and systematic experiments. Some sessions are designed to allow students to formulate their own experiments, for which they will need to develop and test hypotheses, analyze the evidence and interpret what they achieve.

Campus Closure

If the campus closes or class is canceled due to weather or other concern, students should check Blackboard [or other instruction as appropriate] for updates on how to continue learning and information about any changes to events or assignments.

Mason Diversity Statement

George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.

An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

The reflection of Mason's commitment to diversity and inclusion goes beyond policies and procedures to focus on behavior at the individual, group and organizational level. The implementation of this commitment to diversity and inclusion is found in all settings, including individual work units and groups, student organizations and groups, and classroom settings; it is also found with the delivery of services and activities, including, but not limited to, curriculum, teaching, events, advising, research, service, and community outreach.

Acknowledging that the attainment of diversity and inclusion are dynamic and continuous processes, and that the larger societal setting has an evolving socio-cultural understanding of diversity and inclusion, Mason seeks to continuously improve its environment. To this end, the University promotes continuous monitoring and self-assessment regarding diversity. The aim is to incorporate diversity and inclusion within the philosophies and actions of the individual, group and organization, and to make improvements as needed.

Sexual Harassment, Sexual Misconduct, and Interpersonal Violence

George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote community well-being and student success. We encourage students and employees who believe that they have been sexually harassed, sexually assaulted or subjected to sexual or interpersonal misconduct to seek assistance and support. [University Policy 1202: Sexual Harassment and Misconduct](#) speaks to the specifics of Mason's process, the resources, and the options available to students and employees.

Notice of mandatory reporting of sexual or interpersonal misconduct: As a faculty member, I am designated as a "Non-Confidential Employee," and must report all disclosures of sexual assault, sexual harassment, interpersonal violence, stalking, sexual exploitation, complicity, and retaliation to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as

Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance or support measures from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

Useful Campus Resources:

University Catalog: <http://catalog.gmu.edu/>

University Policies: <http://universitypolicy.gmu.edu/>

Student Support Resources on Campus (<https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>)

Name of Resource	Description of Resource
<u>Mathematics Tutoring Center</u>	Offers tutoring on a walk-in basis for all George Mason University students who are enrolled in math courses up to MATH 290.
<u>Advising for Exploratory Students</u>	Provides advisors and coaches for students seeking or changing their major.
<u>Assistive Technology Initiative</u>	Manages the production of accessible text for Mason students with disabilities. They also ensure access to information technology and communications to the entire university community through the use of adaptive equipment and provision of technical assistance.
<u>Counseling and Psychological Services</u>	CAPS is a mental health center that is dedicated to promoting the emotional and psychological health and wellness of our students, provide time-limited individual and group counseling, referral to community mental health providers, psychiatric and crisis counseling, and academic and wellness workshops.
<u>University Career Services</u>	Provides information on career choices, internships and employment, and graduate and professional school.
<u>Office of Coalition Building and Diversity Education (CBDE)</u>	Through collective and collaborative work with campus and community partners, supports, builds, and enhances the understanding of interpersonal identities to respond to systemic inequities, through engagement, advocacy, and education. CBDE aims to be a catalyst for change by creating, promoting and sustaining an inclusive and equitable campus community.
<u>Center for Culture, Equity, and Empowerment (formerly ODIME and LGBTQ+)</u>	Leverages programs and services focused on advocacy and direct student support to strengthen equity and inclusion at George Mason University. Our advising fosters opportunities for identity development, cross-cultural engagement, and inclusive learning communities, affirming the indivisible aspects of all our identities. Our three areas: <u>Student Access and Equity (SAE)</u> , <u>Student Engagement for Racial Justice (SERJ)</u> , and <u>LGBTQ+ Resources</u> , serve as resources to those in the Mason Community who seek to meaningfully engage and interact with people with different identities and intersections to co-create an equitable campus environment.

Name of Resource	Description of Resource
<u>Office of the Ombudsman</u>	Acts as a unique resource for students to discuss concerns and complaints and serves as a safe space to facilitate the resolution of conflicts. As an impartial party, the office does not take sides in any conflict and operates independently of any formal channels at the university.
<u>Disability Services</u>	Serves individuals who are deaf/hard of hearing and blind/low vision, and those with mobility and medical difficulties. They also serve those with ADHD, Autism, learning, temporary and psychological disabilities, and more. Accommodations are developed on a case-by-case basis through an individual interview and documentation. Accommodations can be implemented at any time during a student's enrollment.
<u>Learning Services</u>	Provides a variety of experience based learning opportunities through which students explore a wide range of academic concerns. Services include support to students with learning differences, individual study skills counseling, individualized programs of study, and provision of tutoring resources. Presentations on a variety of academic skill topics are available to the university community. The programs are open to all George Mason University students free of charge. Services are confidential and use of these services does not become part of the student's academic record.
<u>Safe Zone</u>	Creates a safer, more welcoming and inclusive campus environment to strengthen community and encourage networking among faculty, staff, and students toward the goal of supporting the well-being of LGBTQ people.
<u>Mason Student Services Center</u>	Provides one-stop, integrated information and referrals regarding admissions, registrar, student accounts, and financial aid.
<u>Military Alliance Program (M.A.P.)</u>	Provides faculty and staff participants with an understanding of military students at Mason and how they can be supported. Upon completion of M.A.P. training, participants are certified by the Office of Military Services as a "Military Friendly Staff Member".
<u>Office of Academic Integrity</u>	Provides information on the honor code and resources for students and faculty.
<u>International Programs and Services</u>	Provides guidance to students and scholars studying and working at George Mason University on immigration, employment and taxation, and adjustment issues, while fostering cross-cultural understanding through programs highlighting global themes.
<u>Copyright Resources Office</u>	Provides assistance to faculty and students regarding copyright policies.
<u>Social Action and Integrative Learning (SAIL)</u>	Fosters experiential learning opportunities on campus, regionally, and globally for the Mason community with a particular emphasis

Name of Resource	Description of Resource
	on effecting positive social change. SAIL is Mason's home for service-learning initiatives.
<u>Student Health Services</u>	SHS is an on-campus healthcare clinic staffed by dedicated medical professionals who provide accessible and affordable health care to all enrolled students. SHS provides diagnosis and treatment of illnesses and minor injuries, health counseling, lab testing, and a variety of other services.
<u>Student Support and Advocacy Center</u>	Offers educational programs and support services to help students address issues related to personal wellness, interpersonal violence, and alcohol and drug use. SSAC also assists students who are encountering life challenges or crises.
<u>Student Conduct</u>	Provides information about university policies, the student conduct process, and resources for faculty related to addressing student behaviors of concerns and other disruptive behaviors.
<u>UNIV Courses and Programs</u>	Serves as a resource and development center for undergraduates, providing courses, programs, and services to facilitate students' personal and academic success.
<u>University Life</u>	Enhances students' in- and out-of-class experiences, in addition to facilitating interactions among faculty, staff, and other students. These resources help students achieve academically, stay healthy, get involved with campus life, find jobs, and identify resources to enrich their learning.
<u>University Writing Center</u>	Offers free individual writing consultations for students, who choose between meeting a tutor in person, on Zoom or submitting a draft for the tutor's written feedback. Also offers online writing guides on specific genres of writing, citation style, and other topics. Additionally, the Writing Center provides assistance to faculty who are interested in holding in-class writing workshops, developing effective writing assignments, or evaluating students' writing.