**Important Note:** Every effort will be made to avoid changing the course schedule, but the possibility exists that unforeseen events will make syllabus changes necessary. It is your responsibility to check Brightspace for corrections or updates to the syllabus. Any changes will be clearly noted in course announcements or through Stony Brook email.

**Part 1: Course Information**

**General education designation(s) (SBC)***)*: This course satisfies both the Category H component of the Diversified Education Curriculum (DEC) and Stony Brook Revised Curriculum category STAS.

**Instructor name:** Dr. Sultan Hameed, Professor in School of Marine and Atmospheric Sciences.

**Instructor’s email:** sultan.hameed@stonybrook.edu

**Office hour:** By appointment

**TA Information:** We have Three Teaching Assistants. They are graduate students in the School of Marine and Atmospheric Sciences

Jeremy Curtis: jeremy.curtis@stonybrook.edu

Office Hour: Monday 3-4 PM

 Shakirah Rogers: shakirah.rogers@stonybrook.edu

Office Hour: Thursday 10-11 AM

 Femi Omitusa: oluwafemi.omitusa@stonybrook.edu

Office Hour: Friday 12-1 PM

**Course Description:** We will explore current concerns about modern and future global climate change with emphasis on changes related greenhouse effect-warming in a format accessible to non-science majors. Topics include an introduction to the climate system, past climate variability and climate forcing mechanisms, climate change effects on a variety of ecosystems, extreme weather, human dimensions of climate change and related political controversies.

**Required Course Textbook:** *The Thinking Person’s Guide to Climate Change*, **(2nd Edition)** by Robert Henson.



We will follow the sequence of topics in the textbook . **Recent developments in Climate not covered in the textbook will also be introduced; these are a part of the class.**

**Course Delivery Mode and Structure:**This is an  *online course, delivered in the Brightspace system .*All assignments and course interactions will utilize internet technologies.

**How We Will Communicate:** Please email one of the TAs if you have questions about the class. If you use Brightspace’s **email tool** from the course site, it will automatically include your full name, course name and section when you send me an email. **Please allow up to 24 for an email reply.** Your Stony Brook University email must be used for all University-related communications. You must have an active Stony Brook University email account and access to the Internet. All instructor correspondence will be sent to your SBU email account. **Plan on checking your SBU email account regularly for course-related messages.** To log in to Stony Brook Google Mail, go to <http://www.stonybrook.edu/mycloud> and sign in with your NetID and password.

Regular announcements will be sent from Brightspace. These will be posted in the course site and may or may not be sent by email.

**Technical Requirements:**This course uses Brightspace for the facilitation of communications between faculty and students, submission of assignments, and posting of grades and feedback. The Brightspace course site can be accessed at [https://Brightspace.stonybrook.edu](https://blackboard.stonybrook.edu)

If you are unsure of your NetID, visit <https://it.stonybrook.edu/help/kb/finding-your-netid-and-password> for more information. You are responsible for having a reliable computer and Internet connection throughout the term.

The following list details a minimum recommended computer set-up and the software packages you will need to have access to, and be able to use:

* PC with Windows 10 or higher
* Macintosh with OS 10.11 or higher (we recommend a 3-year Warranty)
* Intel Core i5 or higher
* 250 GB Hard Drive
* 8 GB RAM
* Latest version of Chrome or Firefox; Mac users may use Chrome or Firefox. (A complete list of supported browsers and operating systems can be found on the My Institution page when you log in to Brightspace.)
* High speed internet connection
* Word processing software (Microsoft Word, Google Docs, etc.)
* Headphones/earbuds and a microphone

**Technical Assistance:**If you need technical assistance at any time during the course or to report a problem with Brightspace you can:

* Phone: 631-632-9800 (client support, Wi-Fi, software and hardware)
* Submit a help request ticket: <https://it.stonybrook.edu/services/itsm>
* If you are on campus, visit the Walk-Up Tech Support Station in the Educational Communications Center (ECC) building.

**Part 2: Course Learning Objectives and Assessments**

Upon completion of the course, students will be able to:
1. Comprehend the current concerns about the greenhouse effect and its consequences on global ecosystems, water resources, human health, and quality of life.

2. Understand the mechanisms that cause climate change, and which mechanisms are relevant to modern climate change.

3. Recognize domestic and international social and political efforts being taken to limit climate change and atmospheric pollution

**How to Succeed in this Course:**

* This is a 200-level course, and while the material will be taught such that it is accessible to non-majors, it will be more in-depth level than a 100-level course. If you are looking for an "easy A," this is not the course for you!
* You need to spend approximately three hours every week outside of class reviewing the material or you risk falling behind. Obviously, the amount of time each student needs to review course material will vary from person to person, but generally speaking, you should spend about one hour going over course material outside of class for every hour spent in class.
* If you do not understand or have questions about the material, please send your TAs an email to make an online appointment. It is critical that you keep up with the class. Do not wait until a day or two before an exam to go through the relevant material.

**Part 3: Course Schedule**

***[****\*\*\*subject to changes\*\*\**

|  |  |  |
| --- | --- | --- |
| **Week**  | **Topic**  | **Readings** |
|  Jan 28-30 | Key Questions and Answers | Pages 3-27 |
|  **2 Feb 4-6** | The Greenhouse Effect ; Who is responsible;  | Pages 29-58 |
| **3** Feb-11- 13 | Extreme Heat Floods and Droughts;  | Pages 61-101 |
| **4** Feb 18-20 | The Big Melt- | Pages 103-148 |
| **5 Fem 25-27** | Oceans | Pages 149-180 |
| **6 March 4-6** | Hurricanes and Other Storms | Pages 181-209 |
| **7.**March 11-13 |  Ecosystems and Agriculture | Pages 211-242 |
| **8** March 18-20 |  Spring Break | Spring Break |
| **9** March 25-27 | Keeping Track | Pages 245-270 |
| **10** April 1-3 | The Long View-;  | Pages 271-292 |
| **11** April 8-10 | The Long ViewCircuits of Change | Pages 293-321 |
| **11** April 15-17 | Circuits of Change; A Heated Topic | Pages 322--352 |
| **12** May 22-24 | A heated Topic-Predicament- | Pages 353-385 |
| **13** April 29- May 1 | Political Solutions | Pages 387-418 |
| **14 May 8** | Political Solutions-Technological Solutions | Pages 419-462 |

**Part 4: Grading, Attendance, and Late Work Policies**

**Assessment and Grading:**

**Viewing Grades on Brightspace:** Homework and Exam Scores will be posted in Brightspace.

The Homework Assignments and Exams will be posted in Brightspace on Thursdays after class and will be due at 11:59 PM on the following Saturday,

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| --- | --- | --- |
| Acti**vity/Assignment** | **Points** |  **Dates** |
| Bi-weekly Homework | 25 |  Thursday-Saturday 11:59 PM |
| Mid Term 1 | 20 | February 27 |
| Mid Term 2 | 20 | April 10-  |
| Cumulative Final | 35 | May 13- |
| Total | 100 |

**Extra Credit**

You can earn extra credit by reading one or both of the following books related to the class:

1. The Revenge of Gaia: Earth’s Climate Crisis and the Fate of Humanity-- James Lovelock
2. How to Avoid a Climate Disaster: The Solutions We Have and the Breakthroughs We Need--- by Bill Gates

![The Revenge of Gaia: Earth's Climate Crisis & The Fate of Humanity by [James Lovelock, Crispin Tickell]]() 

***Extra Credit Rules*:**1) You will be given a multiple-choice exam on the book you read. If you score 70% or better 0.33 will be added to your average. (Example: B=3.0 becomes B+=3.33)2)The exam for each book will be offered twice. You can take the exam again if you did not pass the first time.3) You can earn credit for one book or both books.

**Extra Credit Test** for Gates will be on April 14 and April 28 ; for Lovelock on April 21 and May 5.

**Letter Grades:**

# Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

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| --- | --- |
| Letter Grade |  Percentage |
| A | 92.5--100 |
| A- | 89.5—92.4 |
| B+ | 86.5—89.4 |
| B | 82.5—86.4 |
| B- | 79.5—82.4 |
| C+ | 76.5—79.4 |
| C | 72.5—76.4 |
| C- | 69.5—72.4 |
| D+ | 66.5—69.4 |
| D | 55.0 —66.4 |
| D- |  50.0—55.0 |
| F | < 50.0 |

***Late Work Policy: In the event of a short-term absence from class, communicate immediately and work directly with Professor Hameed. However, if a student is struggling with an extended absence due a hospitalization, family illness or death, they are encouraged to reach out to the Student Support Team."***

 *If you are not able to submit a Homework or exam on time or miss a test because of health reasons, or an emergency, please provide official documentation for the reason. You can then be exempted from the test ; it will not be counted in calculating your final grade.*

**Part 5: University and Course Policies**

**University Policies:**

**Student Accessibility Support Center Statement:**If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (631) 632-6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information go to the following website: <https://ehs.stonybrook.edu/programs/fire-safety/emergency-evacuation/evacuation-guide-people-physical-disabilities>  and search Fire Safety and Evacuation and Disabilities.

**Academic Integrity Statement:**Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at [http://www.stonybrook.edu/commcms/academic\_integrity/index.html](https://www.stonybrook.edu/commcms/academic_integrity/index.html)

**Important Note:** Any form of academic dishonesty, including cheating and plagiarism, will be reported to the Academic Judiciary.

**Critical Incident Management:**Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

**Course Policies:**

**Understand When You May Drop This Course:**It is the student’s responsibility to understand when they need to consider withdrawing from a course. Refer to the Stony Brook Academic Schedule for dates and deadlines for registration: <http://www.stonybrook.edu/commcms/registrar/calendars/academic_calendars>.

* [Undergraduate Course Load and Course Withdrawal Policy](https://www.stonybrook.edu/sb/bulletin/current/policiesandregulations/records_registration/course_load_withdrawal.php)
* [Graduate Course Changes Policy](https://www.stonybrook.edu/sb/graduatebulletin/current/regulations/registration_requirements/course_changes.php)

**Incomplete Policy:**Under emergency/special circumstances, students may petition for an incomplete grade. Circumstances must be documented and significant enough to merit an incomplete. If you need to request an incomplete for this course, contact me for approval as far in advance as possible.

**Course Materials and Copyright Statement:**Course material accessed from Brightspace, SB Connect, SB Capture or a Stony Brook Course website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot be reused or distributed without written permission of the instructor and/or the copyright holder. Duplication of materials protected by copyright, without permission of the copyright holder is a violation of the Federal copyright law, as well as a violation of Stony Brook’s Academic Integrity.

**Online Communication Guidelines and Learning Resources:**Maintain professional conduct both in the classroom and online. The classroom is a professional environment where academic debate and learning take place. I will make every effort to make this environment safe for you to share your opinions, ideas, and beliefs. In return, you are expected to respect the opinions, ideas, and beliefs of other students—both in the face-to-face classroom and online communication. Students have the right and privilege to learn in the class, free from harassment and disruption. The course follows the standards set in the Student Code of Conduct, and students are subject to disciplinary action for violation of that code. If your behavior does not follow the course etiquette standards stated below, the grade you receive for a posting may suffer. I reserve the right to remove any discussion messages that display inappropriate language or content.

**Online Etiquette:**

* Offensive language or rudeness will not be tolerated. Discuss ideas, not the person.
* Avoid cluttering your messages with excessive emphasis (stars, arrows, exclamations).
* If you are responding to a message, include the relevant part of the original message in your reply, or refer to the original post to avoid confusion;
* Be specific and clear, especially when asking questions.
* Use standard punctuation and capitalization. Using all UPPERCASE characters gives the appearance of shouting and makes the message less legible;
* Remember that not all readers have English as their native language, so make allowances for possible misunderstandings and unintended discourtesies.

**Online Classes Require Better Communication:**
It is important to remember that we will not have the non-verbal cues that occur in a face-to-face classroom. I cannot see the confused, frustrated, or unhappy expressions on your face if you encounter problems. You MUST communicate with me so that I can help. To make the experience go smoothly, remember that you’re responsible for initiating more contact, and being direct, persistent, and vocal when you don’t understand something.

**My Role as the Instructor:**As the instructor, I will serve as a “guide” in our online classroom. While I will not respond to every post, I will read what is posted, and reply when necessary. Expect instructor posts in the following situations:

* To assist each of you when it comes to making connections between lectures and textbook material.
* To fill in important things that may have been missed.
* To re-direct discussion when it gets “out of hand.”
* To point out key points or to identify valuable posts.

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| **Part 6: Student Resources** |

Academic and Major Advising (*undergraduate only*): Have questions about choosing the right course? Contact an advisor today. Phone and emails vary-please see website for additional contact information; website: <https://www.stonybrook.edu/for-students/academic-advising/>

Academic Success and Tutoring Center *(undergraduate only)*: <https://www.stonybrook.edu/tutoring/>

Amazon @ Stony Brook: Order your books before classes begin. Phone: 631-632-9828; email: Bookstore\_Liaison@stonybrook.edu; website: [http://www.stonybrook.edu/ bookstore/](http://www.stonybrook.edu/commcms/bookstore/)

Bursar: For help with billing and payment. Phone: 631-632-9316; email: bursar@stonybrook.edu; website: <http://www.stonybrook.edu/bursar/>

Career Center: The Career Center’s mission is to support the academic mission of Stony Brook University by educating students about the career decision-making process, helping them plan and attain their career goals, and assisting with their smooth transition to the workplace or further education. Phone: 631-632-6810; email: sbucareercenter@stonybrook.edu; website: <http://www.stonybrook.edu/career-center/>

Counseling and Psychological Services: CAPS staff are available by phone, day or night. <http://studentaffairs.stonybrook.edu/caps/>

Ombuds Office: The Stony Brook University Ombuds Office provides an alternative channel for confidential, impartial, independent and informal dispute resolution services for the entire University community. We provide a safe place to voice your concerns and explore options for productive conflict management and resolution. The Ombuds Office is a source of confidential advice and information about University policies and procedures and helps individuals and groups address university-related conflicts and concerns. <http://www.stonybrook.edu/ombuds/>

Registrar: Having a registration issue? Let them know. Phone: 631-632-6175; email: registrar\_office@stonybrook.edu; <http://www.stonybrook.edu/registrar/>

SBU Libraries: access to and help in using databases, ebooks, and other sources for your research.

* Research Guides and Tutorials: <http://guides.library.stonybrook.edu/>
* Getting Help: <https://library.stonybrook.edu/research/ask-a-librarian/>

Student Accessibility Support Center: Students in need of special accommodations should contact SASC. Phone: 631-632-6748; email: sasc@stonybrook.edu; <https://www.stonybrook.edu/sasc/>

Support for Online Learning: <https://www.stonybrook.edu/online/>

Writing Center: Students are able to schedule face-to-face and online appointments. <https://www.stonybrook.edu/writingcenter/>