Course Syllabus

**Earthquakes and Volcanoes**01:460:201:92 Fall 2021

**Instructor**: Roberto Masis Arce, PhD Student  
**Email**: rjm449@eps.rutgers.edu  
**Office hours**: contact via email to schedule a meeting

**Summary of Course Format**

**Instructional Materials**: This is an asynchronous ONLINE class. This means there will be no formal lectures, so you can learn about the course topics and work on assignments at your own pace. While there is flexibility, keeping up with the material is entirely your responsibility.

[**Course Home**](https://rutgers.instructure.com/courses/154934/modules/788306) outlines what to expect from this class, logistics, and some important Rutgers resources.  Please start your work there. Learning remotely presents new challenges. For assistance with learning how to address these challenges, please consult the resources available here: [https://rlc.rutgers.edu/remote\_instruction (Links to an external site.)](https://rlc.rutgers.edu/remote_instruction)

**Technology Requirements**

Please visit the [Rutgers Student Tech Guide (Links to an external site.)](https://it.rutgers.edu/technology-guide/students/) page for resources available to all students. If you do not have the appropriate technology for financial reasons, please email [Dean of Students](mailto:deanofstudents@echo.rutgers.edu) for assistance. If you are facing other financial hardships, please visit the [Office of Financial Aid (Links to an external site.)](https://financialaid.rutgers.edu/). For office hours or appointments, I will be using [Zoom (Links to an external site.)](https://it.rutgers.edu/zoom/knowledgebase/how-to-create-your-rutgers-zoom-account/). Please see the page on Zoom accounts in the [**Course Home**](https://rutgers.instructure.com/courses/154934/modules/788306) to learn about and download the program.

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| **For all tasks required in this class** | **In case you want to *speak*with the instructor** |
| Computer (tablet will probably work) | web-conferencing software (Zoom) |
| PowerPoint | microphone |
| Word | webcam (optional but highly recommended) |
| PDF Reader | smartphone (recommended - install the mobile version of Canvas on your phone) |
| internet browser (Chrome or Firefox will definitely work) |  |
| high-speed internet connection |  |

**Course Webpage:**Canvas [https://canvas.rutgers.edu.   (Links to an external site.)](https://canvas.rutgers.edu/)

**SAS Core Curriculum Goals for Natural Sciences (NS):**By the end of the course, students will be able to:  
**-** Understand and apply basic principles and concepts in earth science.  
**-** Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in     scientific analysis

**Course Learning Goals:**                                     
This course will survey basic knowledge about earthquakes and volcanic eruptions as well as how these natural processes affect human civilization. Some very general objectives, not necessarily in the order of their importance, are:

* Learn about the hazards earthquakes and volcanoes pose to human civilization, and ways we can mitigate them;
* Learn basic facts about volcanoes, earthquakes, and their connection to large-scale processes within the Earth;
* Develop a basic familiarity with the modern understanding of how our planet functions.

Along with the specific objectives above, you will become familiar with the broad concepts of scientific inquiry:

* what constitutes knowledge,
* how it is acquired,
* how it is verified,
* how it is applied.

**Departmental Learning Goals for Survey Courses**  
Students taking this course should develop an appreciation of critical thinking and the scientific method, including hypothesis testing. Students should recognize the importance of Earth Sciences in understanding of the physical, social, and economic resources and history of our planet. For example, we would expect that any student successfully completing our courses should be able to critically evaluate scientific issues in earth systems discussed in the popular press.

**Required Texts**: How Volcanoes Work by Vic Camp  
This is a **free online manual** and can be found at: [http://www.geology.sdsu.edu/how\_volcanoes\_work/ (Links to an external site.)](http://www.geology.sdsu.edu/how_volcanoes_work/)

[(Links to an external site.)](http://www.geology.sdsu.edu/how_volcanoes_work/)**Reading & Viewing Assignments**

Reading assignments will be divided in 2 (Volcanoes and Earthquakes), each has its own 2 assignments and 1 exam. The individual course modules will list the specific reading and viewing assignments. If you find a broken link, please let me know asap so I can fix it!

**Assessments of Learning and Basis for Grade**

* Assignment I - Volcanoes: 12.5 %
* Assignment II - Volcanoes: 12.5%
* Volcanoes Exam: 25 %
* Assignment III - Earthquakes: 12.5%
* Assignment IV - Earthquakes: 12.5%
* Earthquakes Exam: 25 %

**Exams**: NON-CUMULATIVE (all dates and times tentative)

* Exam 1: available for 48 hours during the week of October 18
* Exam 2:  available during the exam week, specific dates will be set once Rutgers decides when this course "official" exam time is.

**Assignments:**

* Assignment 0 - Syllabus           due Friday September 10 (extra credit)
* Assignment I - Volcanoes         due Friday September 24
* Assignment II - Volcanoes        due Friday October 8
* Assignment III - Earthquakes    due Friday November 12
* Assignment IV - Earthquakes   due Friday December 3

**Honor pledge**: All students will need to sign the Rutgers Honor Pledge on every major exam, assignment, or other assessment as follows: *On my honor, I have neither received nor given any unauthorized assistance on this examination (assignment, paper, quiz, etc.)*

**Grading Scheme**:  
Letter grades correspond to the following numerical values: A, 90.0 to 100; B+, 85.0 to 89.99; B: 80.00 to 84.99; C+, 75.00 to 79.99; C, 70.00 to 74.99; D, 60.00 to 69.99; F, 0 to 59.99.

**Current Academic Integrity Policy:**

Students are expected to maintain the highest level of academic integrity. You should be familiar with the university[policy on academic integrity (Links to an external site.)](http://nbacademicintegrity.rutgers.edu/home-2/academic-integrity-policy). Violations will be reported and enforced according to this policy.

Use of external website resources such as Chegg.com or others to obtain solutions to homework assignments, quizzes, or exams is cheating and a violation of the University Academic Integrity policy. Cheating in the course may result in grade penalties, disciplinary sanctions or educational sanctions. Posting homework assignments, or exams, to external sites without the instructor's permission may be a violation of copyright and may constitute the facilitation of dishonesty, which may result in the same penalties as plain cheating.

[Academic Integrity Resources for Students (Links to an external site.)](https://nbprovost.rutgers.edu/academic-integrity-students)

**Intellectual Property**

Almost all original work is the intellectual property of its authors. These works may include syllabi, lecture slides, recorded lectures, homework problems, exams, and other materials, in either printed or electronic form. The authors may hold copyrights in these works, which are protected by U.S. statutes. Copying this work or posting it online without the permission of the author may violate the author’s rights. More importantly, these works are the product of the author’s efforts; respect for these efforts and for the author’s intellectual property rights is an important value that members of the university community take seriously. For more instructions on copyright protections at Rutgers University, please refer to the [Rutgers Libraries (Links to an external site.)](https://www.libraries.rutgers.edu/copyright/copyright-for-students).

**Acknowledgments**

The following people have created, maintained, or added to this course from the 1980s up to now: Professor Michael Carr (course creator), Professor Vadim Levin, Professor Roy Schlische, Dr. Lauren Adamo, graduate students Ian Saginor, Alex Nikulin, Sara Mana, Yiran Li, James Bourke, Aaron Watters, Zakiya Chikwendu, Melissa Boyd, Roberto Masis Arce, Katelyn Frizzel.

**Considering a major or minor in Earth & Planetary Sciences or looking for another course?**

The Department of Earth & Planetary Sciences offers 4 major tracks:

* [Geological Sciences (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/major)
* [Environmental Geology (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/major)
* [Planetary Science (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/major)
* [General Option: Earth Science (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/major)

We also offer a minor in Earth & Planetary Science and coordinate an interdisciplinary minor in Astrobiology. Finally, we offer [numerous courses (Links to an external site.)](https://sasundergrad.rutgers.edu/degree-requirements/core/areas-of-inquiry-natural-sciences) that satisfy the NS (natural science) requirement.

* [Information about introductory and survey courses (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/introductory-and-survey-courses)
* [Information about the 2 minor options (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/minor)
* [General information for prospective students from current students and alumni (Links to an external site.)](https://eps.rutgers.edu/academics/undergraduate-program/prospective-students)

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**Additional Useful Information**

**University-wide COVID-19 Information**

[https://coronavirus.rutgers.edu/ (Links to an external site.)](https://coronavirus.rutgers.edu/)

**Counseling, ADAP & Psychiatric Services (CAPS)**

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ [http://health.rutgers.edu/medical-counseling-services/counseling/ (Links to an external site.)](http://health.rutgers.edu/medical-counseling-services/counseling/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students’ efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners.

Crisis Intervention**:** [http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/ (Links to an external site.)](http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/)

Report a Concern**:** [(Links to an external site.)http://health.rutgers.edu/do-something-to-help/ (Links to an external site.)](http://health.rutgers.edu/do-something-to-help/)

**Violence Prevention & Victim Assistance (VPVA)**

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / [www.vpva.rutgers.edu/ (Links to an external site.)](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty.  To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

**Division of Diversity, Inclusion, and Community Engagement**

(848) 932-4400 [https://diversity.rutgers.edu/ (Links to an external site.)](https://diversity.rutgers.edu/) / 106 Somerset Street, 7th Floor, New Brunswick, NJ 08901

The Rutgers Division of Diversity, Inclusion, and Community Engagement endeavors to advance, promote, and advocate for inclusiveness, diversity, and equity as key elements to achieve Rutgers’ strategic vision to be preeminent in research, excellent in teaching, and committed to community. The website offers assistance to international scholars, contains a number of academic scholarships and grants for historically marginalized humans, and offers many resources for students including support during crisis or incidents of bias, academic resources, scholarship and internship opportunities, disability and accessibility, mentoring, and more.

**The Center for Social Justice Education and LGBT Communities (SJE)**

(848) 445-4141~ 08901 [http://socialjustice.rutgers.edu/ (Links to an external site.)](http://socialjustice.rutgers.edu/) ~ 17 Bartlett St. College Ave, New Brunswick, NJ

The SJE promotes a supportive environment for students of all backgrounds, with a focus on gender and sexuality, while promoting both social and educational opportunities for leadership, identity, and social justice advocacy development. With a critical understanding of multiple identities and connected systems of oppression, SJE works collaboratively with students, faculty, administrators, staff and community members to develop relevant initiatives and policies that center diversity, inclusion, and intersections of identity. Their resources page includes a wealth of information regarding mental health counseling, access to the Rutgers food pantry, LGBTQA scholarships, academic advising, and social justice academic programs, as well as advice for bystanders who want to do something.

**Disability Services**

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / [(Links to an external site.)https://ods.rutgers.edu/ (Links to an external site.)](https://ods.rutgers.edu/)

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: [https://ods.rutgers.edu/students/documentation-guidelines (Links to an external site.)](https://ods.rutgers.edu/students/documentation-guidelines). If the documentation supports your request for reasonable accommodations, your campus’s disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: [https://ods.rutgers.edu/students/registration-form.](https://webapps.rutgers.edu/student-ods/forms/registration)