

Dalhousie University
Arts and Social Sciences/History of Science and Technology
HSTC 2105/0.3 credit hours/ The Life, Science, and Philosophy of Albert Einstein
Winter 2021
online/asynchronous

COURSE INFORMATION

Instructor: Dr. Ben Mitchell
Pronouns: He/they
Office: Online
Office Phone: N/A
Office Hours: By appointment
Email: ben.mitchell@ukings.ca



Throughout the term I will be available to chat through email, Brightspace, and Microsoft Teams. Except where we have arranged to meet beforehand, please expect at least a day response time. In the event of unforeseen class cancellations or changes, please refer to the course's Brightspace page for updates. I encourage students to contact me for assistance as needed for course related questions and guidance.

(Image credit: Life by Selena Photography)

Course Description

(Please note: this course has changed somewhat from the posted description on the course calendar.)

This course is an examination of the life, times, and legacy of the physicist Albert Einstein (1879-1955). It is also a reflection on how biographies of prominent figures in the history of science are treated in popular culture. It begins with a consideration of pre-Einsteinian accounts of relativity, nineteenth century debates about the nature of genius, and the relationship between the scientist and society. We will go on to examine Einstein's life, scientific works, participation in the cultural debates of his age, and ongoing cultural legacy.

The backbone of the course is a critical engagement with Walter Isaacson's 2007 New York Times bestseller *Einstein: His Life and Universe*. As their understanding of Einstein's life and writings develop with the aid of supplementary primary and secondary material, students will be asked to reflect on the cultural and historical "work" being done by the biography, what ends it may serve, and whether or not it adequately reflects the complexities of the history of science, and of Einstein himself.

Course Pre-requisites, Co-requisites and/or other Restrictions

None.

Course Rationale and/or Other Restrictions and Requirements

This course requires an understanding of the English language and assumes some familiarity with historical principles and methods.

Learning Management System Site Information

This course will be hosted on Dalhousie's Brightspace platform through your my.dal access (the link to your Brightspace page should be at the top of the "Quick Links" list after you have logged into your account. Once you have logged into Brightspace you should be able to find the course page under "My Courses." There you will find a copy of the syllabus, chat, and digital versions of readings (excluding the Isaacson biography, which you can purchase, or acquire through your own means).

Description of Class Format

This is an asynchronous and online course.

Course Learning Outcomes

Upon completion of this course, students should be able to:

Learning Outcome #1

Participate meaningfully in critical historical and biographical discussions about the life and times of Albert Einstein.

Learning Outcome #2

Be able to critical examine themes in the history of science and scientific biography.

Learning Outcome #3

Conduct primary or secondary source-based textual analysis and present a novel hypothesis based upon their findings.

Required Text(s)

- Walter Isaacson. *Einstein: His Life and Universe*. New York: Simon & Schuster Paperbacks, 2007.
- Other texts will be available digitally through the course's Brightspace page.
- [The Collected Papers of Albert Einstein](#)

Course Schedule

This course will consist of 13 week-long "units" involving recorded lectures, readings, suggested supporting literature and media, chat-based discussion, source reflection assignments, a research skills assignment, and a research paper or final assignment. Students are required to submit assignments and activities by the Friday of the week they are due.

For more information about University holidays and important dates from the University calendar, including withdrawal and drop dates, please see https://www.dal.ca/academics/important_dates.html

Week/Module Class Dates	Focus Topic	Deadlines	Readings
1 Jan 6- 8	Introductions and Overview of Isaacson's Biography	Week 1 topics	Isaacson, Chapters 1, 2
2 Jan 11 – 15	Before Einstein and Information Literacy Overview	Week 2 topics	Isaacson, Chapters 3, 4 Other: TBA
3 Jan 18 – 22	Einstein's "Miracle Year" and Special Relativity		Isaacson, Chapters 5, 6 Other: TBA
4 Jan 25 – 29	Education, Women, and Einstein's "Lost Child"	Source Reflection I Due	Isaacson, Chapters 7, 8 Other: TBA
5 Feb 1 – 5	General Relativity and Questions of Priority		Isaacson, Chapters 9, 10 Other: TBA
6 Feb 8 – 12	World War One, the Eddington Expedition, and Celebrity	Week 6 topics	Isaacson, Chapters 11, 12 Other: TBA
Winter Study Break Feb 15 – 19			
7 Feb 22 – 26	Zionism and Civil Rights	Source Reflection II Due	Isaacson, Chapters 13, 14 Other: TBA
8 Mar 1 – 5	Artistic Influence	Week 8 topics	Isaacson, Chapters 15, 16 Other: TBA
9 Mar 8 – 12	Religion and Spirituality	Week 9 topics	Isaacson, Chapters 17, 18 Other: TBA
10 Mar 15 – 19	Quantum Mechanics	Research Skills Assignment Due	Isaacson, Chapters 19, 20 Other: TBA
11 Mar 22 – 26	The Bomb and Internationalism	Week 11 topics	Isaacson, Chapters 21, 22 Other: TBA
12 Mar 29 – Apr 2	Socialism	Week 12 topics	Isaacson, Chapters 23, 24 Other: TBA
13 Apr 5 – Apr 9	Einstein's Afterlife	Final Assignment Due	Isaacson, Chapters 25, Epilogue Other: TBA

Course Assessments

Assessment		Weight
Source Reflection I	Week 4: Friday, Jan 29th	15%
Source Reflection II	Week 7: Friday, Feb 26th	15%
Research Skills Assignment	Week 10: Friday, Mar 19th	20%
Final Assignment Due	Week 13: Friday, Apr 9th	30%
Participation	End of Term	20%

Grades will be given out numerically. Students wishing to convert numeric to letter grades can visit the university's conversion descriptors under the Dalhousie Grading Practices Policy at:

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Participation

Participation will be broadly interpreted as consistent, thoughtful interaction with the course through the class chat and through emails with the instructor. Each week the instructor will post a few questions for consideration to the course chat. Students are encouraged to interact with the question or each other's responses to the question, or bring up their own thoughts and questions. Find some interesting reflection or representation of Einstein in your daily life? Why not share it with the group? As long as it is respectful and relevant to course themes your contributions are very much welcome here.

(Note: Please submit all assignments as .doc or .docx files via email)

Source Reflections 1 & 2

Throughout the term students are expected to write two (2) source reflections based on secondary source material in order to help them prepare for their final assignment. These reflections will:

1. Provide a bibliographic citation for your source and the research path that led you to it
2. Summarize your source
3. State what your source adds to your understanding of Einstein's life and work and how it relates to course content
4. Answer why you think it is a good source based on historical reasoning
5. Find one thing you would like to share with others in the chat about your source (and then share it)

These reflections will be graded based on their ability to show how well the student has been able to reflect on, analyze, synthesize, and correlate class material, clarity of presentation, proofreading, and imagination.

Research Skills Assignment

For this assignment students will formulate a preliminary research question and tentative thesis that will advance their final assignment. In order to do so, they will likely also have to perform a cursory overview of some of the literature relevant to their research question.

Students will then seek out a librarian and perform a (virtual) research interview with them related to their project. Research assistance is available by contacting the King's Library's (library@ukings.ca) or emailing Patricia Chalmers (patricia.chalmers@ukings.ca) or Janet Hathaway (janet.hathaway@ukings.ca). The Live Help reference chat service is also available at <https://ukings.ca/campus-community/library/>.

Students are encouraged to reach out to the library in advance of the assignment due date.

In the written component of this assignment students will:

1. State their preliminary research question and tentative thesis
2. Discuss what questions the librarian asked the students and how they think these questions were raised to help guide their research
3. Discuss what questions the student asked the librarian and how they felt about the answers they received. Did they finish this discussion feeling better prepared to conduct research? Why or why not? What could have been done differently? Where do they intend to go from here in their research process?

This assignment will be graded based on students' ability to show how well they have been able to engage with the research process with the help of a librarian, reflect on their experiences, plan ahead, and clearly present themselves with a minimum of errors.

Participation

This course features a class chat. Each week the instructor will moderate discussions and suggested questions to consider related to the themes and material of that week. Students are encouraged to address these questions and talk amongst themselves regarding the themes of the course.

Final Assignment

Those students who intend to go on to advanced degrees or who wish to further their skills writing academic papers are encouraged to write an academic research paper for their final assignment. This assignment is an original 3000 to 4500-word research paper that will present a novel argument relevant to some theme or topic related to the course. It will be based on textual analysis and reflection, and will be graded based on structure, style, the effective use of evidence, how well it shows an active engagement with its sources, and the quality of the thought being expressed within it. It will also be evaluated based on proof reading and consistent citation. Students doing a research assignment are required to use at least ten (10) sources to support their thesis drawn from the primary and secondary literature.

In dialogue with the instructor, those students who wish to may also propose an alternative final assignment, whether artistic, or based on some other professional discipline of the student's preference. The substance of the assignment will be agreed upon by both instructor and student, and will contain the work equivalent of a 3000 to 4500-word research paper.

Course-specific policies

- When possible, the deadline for late assignments can be re-negotiated as agreed upon by both instructor and student within reasonable parameters.
- Plagiarism detection software is not being used in this course.
- All course lectures will be recordings.

SECTION B: UNIVERSITY POLICIES, STATEMENTS, GUIDELINES and RESOURCES for SUPPORT

This course is governed by the academic rules and regulations set forth in the University Calendar and the Senate. <https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog>

University Statements

- Territorial Acknowledgement:

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people.

- Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect. As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. (read more: http://www.dal.ca/dept/university_secretariat/academic-integrity.html)

- Accessibility

The Student Accessibility Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students on the Halifax campus who request accommodation as a result of: a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (NS, NB, PEI, NFLD).

If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your inclusion please contact either your instructor or the Student Accessibility Centre at https://www.dal.ca/campus_life/academic-support/accessibility.html.

- Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. (read more: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/student-life-policies/code-of-student-conduct.html)

- Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. Dalhousie is strengthened in our diversity and dedicated to achieving equity. We are committed to being a respectful and inclusive community where everyone feels welcome and supported, which is why our university prioritizes fostering a culture of diversity and inclusiveness. (read more: <https://www.dal.ca/cultureofrespect.html>)

- Fair Dealing policy

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie.

(read more: https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html)

University Policies and Programs

- Important Dates in the Academic Year (including add/drop dates)
http://www.dal.ca/academics/important_dates.html
- Dalhousie Grading Practices Policy
https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html
- Grade Appeal Process
https://www.dal.ca/campus_life/academic-support/grades-and-student-records/appealing-a-grade.html
- Sexualized Violence Policy
https://www.dal.ca/dept/university_secretariat/policies/health-and-safety/sexualized-violence-policy.html
- Scent-Free Program
<http://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

Learning and Support Resources

- General Academic Support – Advising
https://www.dal.ca/campus_life/academic-support/advising.html (Halifax)
- Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness.html
- On Track (helps you transition into university, and supports you through your first year at Dalhousie and beyond) https://www.dal.ca/campus_life/academic-support/On-track.html
- Indigenous Student Centre https://www.dal.ca/campus_life/communities/indigenous.html
- Elders-in-Residence (The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit the office in the Indigenous Student Centre or contact the program at elders@dal.ca or 902-494-6803.)
<https://www.dal.ca/academics/programs/undergraduate/indigenous-studies/a-day-in-the-life/elders-in-residence.html>
- Black Student Advising Centre https://www.dal.ca/campus_life/communities/black-student-advising.html
- International Centre http://www.dal.ca/campus_life/student_services/international-centre.html
- South House Sexual and Gender Resource Centre <https://southhousehalifax.ca/about/>
- LGBTQ2SIA+ Collaborative - <https://www.dal.ca/dept/hres/education-campaigns/LGBTQ2SIA-collaborative.html>
- Dalhousie Libraries <http://libraries.dal.ca>
- Copyright Office <https://libraries.dal.ca/services/copyright-office.html>
- Dalhousie Student Advocacy Services <http://dsu.ca/dsas>
- Dalhousie Ombudsperson https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html
- Human Rights and Equity Services <https://www.dal.ca/dept/hres.html>
- Writing Centre https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html
- Study Skills/Tutoring
http://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html