

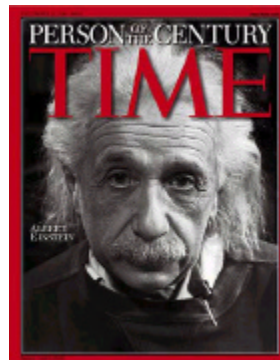
HON 210 - Albert Einstein's Legacy

Syllabus

Dr. R.L. Herman

Fall 2005

Instructor: Dr. R. Herman
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Course Content:

Required Texts: *Einstein and Our World*, 2nd Ed., David C. Cassidy, Humanity Books, 2004. *Relativity Visualized*, Lewis Carroll Epstein, Insight Press, 2000. *Einstein's Cosmos*, Michio Kaku, Atlas Books, 2004. *Ideas and Opinions*, Albert Einstein, Crown Pub. Inc., 1982. You will also be expected to read one biography on Einstein.

2005 is the 100th anniversary of Albert Einstein's miraculous year in which the world first saw $E=mc^2$ and the 50th anniversary of his death. His pioneering contributions in physics are being commemorated in a worldwide celebration of physics. We will take part in this celebration of Einstein's life, science, and philosophy by exploring the impact of his revolutionary thoughts about the fabric of space and time, leading to the now common notions of concepts like black holes, worm holes and the new views of the cosmos. Einstein's legacy is a new universe in which space and time are woven into the fabric of space-time. If this were all he had done, he would not have been declared Time Magazine's "Person of the Century". Einstein also contributed to humanity in his resistance to Hitler and in his controversial support of the Atomic Bomb. In this course we will explore the life, science and philosophy of Albert Einstein and the impact he and his colleagues have had on the world as we enter the 21st century.

Topics will include a history of physics through the early twentieth century; trips into the strange worlds of relativity and quantum physics; a look into the atomic age and its impact on our way of life; an exploration of Einstein's philosophical writings; and the impact of Einstein's science on our lives and in our media; The course will include specific readings, videos and participation in campus activities celebrating the centennial of the seminal work of one of the most recognized physicists of the 20th century.

Materials on the Web

More information will be posted on the web related to the topics we are studying. Links can be found with summaries to the material, homework assignments, additional audiovisual materials, etc. These will be accessible through the instructor's home page at

<http://people.uncw.edu/hermanr/einstein>

Course Requirements:

Participation/Attendance: You are expected to attend every class and to contribute to the class based upon your reading. After three excused absences, there will be a penalty of 2% for each absence from your total grade.

Papers: Throughout the semester you will be required to produce in-class and out of class written work. All out of class-work will adhere to a set of guidelines that are specified at the website.

Presentation: You will prepare group presentations to be given to the class during the month of November. Criteria for the presentations and progress reports will be posted at the course website.

Exams and Grades: There will be a two 50 minute exams and a final exam. The exams will cover the basic material up to the date of the exam. The tentative dates for the exams are below.

Exam I	Sep 21
Exam II	Nov 2
Final	Dec 5, 3:00 PM

Your final grade will be based on the following:

Assignments	40%
Presentation	10%
Exams	30%
Final	20%

The grade distribution is a ten point scale.

89.5-100	A
79.5-89.5	B
69.5-79.5	C
59.5-69.5	D

Plus-minus grading may be used in special cases.



Assignments

You are required to turn in all of the assigned problems for grading on the due date. All work is expected to be neat, in order and with all work provided. Homework assignments will be listed at the course website.

This syllabus is subject to change!

Academic Honor Code: "The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore the institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, each individual is principally responsible for his or her own honesty." Student Handbook.

(This includes plagiarism, bribery and cheating.)

Student Disabilities: UNCW Disability Services supplies information about disability law, documentation procedures and accommodations that can be found at <http://www.uncwil.edu/stuaff/disabltty>. To obtain accommodations the student should first contact Disability Services and present their documentation to the coordinator for review and verification.

Einstein Quotes

Any intelligent fool can make things bigger and more complex... It takes a touch of genius - and a lot of courage to move in the opposite direction.

Common sense is the collection of prejudices acquired by age eighteen.

I made one great mistake in my life - when I signed the letter to President Roosevelt recommending that atom bombs be made but there was some justification - the danger that the Germans would make them.

Imagination is more important than knowledge.

It gives me great pleasure indeed to see the stubbornness of an incorrigible nonconformist warmly acclaimed.

It is not so very important for a person to learn facts. For that he does not really need a college. He can learn them from books. The value of an education is a liberal arts college is not learning of many facts but the training of the mind to think something that cannot be learned from textbooks.

Long hair minimizes the need for barbers; socks can be done without; one leather jacket solves the coat problem for many years; suspenders are superfluous.

Only one who devotes himself to a cause with his whole strength and soul can be a true master. For this reason mastery demands all of a person.

http://www.brainyquote.com/quotes/authors/a/albert_einstein.html