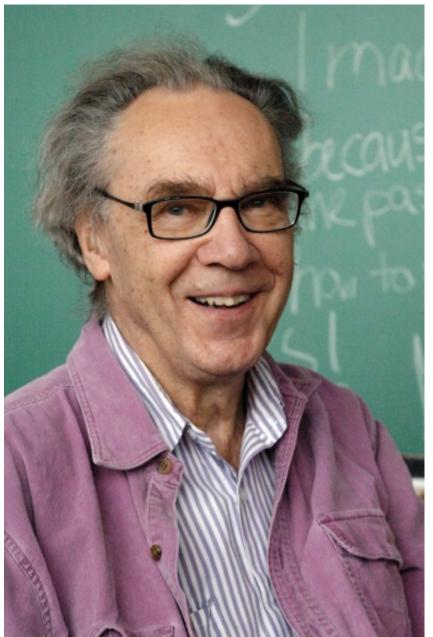
MITOPENCOURSEWARE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

January 2013 Newsletter

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Walter Lewin announces MOOC through edX



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Image courtesy of MIT.

Will one of the world's most popular professor create the

world's most massive online course? *MIT Physics Professor Walter Lewin announces massive open online course through edX.*

CAMBRIDGE, MA, January 23, 2013 - Walter Lewin, the MIT physics professor who has achieved an unparalleled following through his video lectures on the <u>MIT OpenCourseWare (OCW)</u> site, is now offering a massive open online course (MOOC). The course, 8.02x Electricity and Magnetism, is available through edX, MIT and Harvard's not-for-profit online learning enterprise. Announced today and starting February 18th, the course may well become the biggest of the MOOC yet offered. Learners successfully completing the course will receive a certificate bearing Professor Lewin's signature to recognize their achievement.

In the past two years, MOOCs have been putting up impressive numbers. The first MOOC offered by MIT, <u>6.002x Circuits and</u> <u>Electronics</u>, enrolled more than 150,000 learners, and other edX courses have been attracting learners numbering in the tens of thousands. Millions worldwide have taken free massive open online classes through edX and other providers.

But these numbers pale in comparison to the numbers associated with Professor Lewin's online course materials published through OCW.

> Read the complete press release



OCW is grateful for the support of:





Hurricane Sandy hits the Atlantic Coast. Image courtesy of NASA Goddard Photo and Video.

We might best remember 2012 as the year when nature itself decided to shift the debate on climate change. An overwhelming number of

Current Events in Context: Is Extreme the New Normal?



Ab Initio and OpenCourseWare: Built on fundamentals extreme weather events and record-breaking temperatures around the world led many leaders to take new positions on global warming. For example, only days before the U.S. presidential elections, with parts of Manhattan still underwater from Hurricane Sandy's storm surge, Mayor Bloomberg stated plainly that, "Our climate is changing. And while the increase in extreme weather we have experienced may or may not be the result of it, the risk that it might be—given this week's devastation—should compel all elected leaders to take immediate action." New York's Governor Cuomo put it even more bluntly, "There have been a series of extreme weather events. That is not a political statement; that is a factual statement. Anyone who says there is not a change in weather patterns is denying reality."

There's no shortage of evidence this year that the intensity and frequency of extreme weather patterns has increased. China had its coldest winter in thirty years, and northern Russia is enduring record cold temperatures that have disrupted basic public infrastructure. The United States experienced its hottest year ever by a significant margin —a full degree over the earlier record set in 1998—and saw major droughts across the country. England suffered its third year of heavy flooding in the past six years, and it was the wettest year since tracking began a century ago. Brazil and Australia also reported some of the hottest temperatures on the books, with several cities reaching almost 110 degrees. In the Middle East, major cities have been hit with torrential rain and snowstorms that left Amman paralyzed for weeks and Jerusalem digging out from eight inches of snow.

Although the fluid nature of atmospheric systems makes it impossible to directly link individual weather events to specific aspects of climate change, experts agree that extreme weather is an increased risk due to increased greenhouse gases in the atmosphere. "A changing climate leads to changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events," announced the Nobel Peace Prize-winning Intergovernmental Panel on Climate Change this year.

If you're interested in understanding the science behind these extreme weather phenomena, OCW offers a large number of fascinating courses that cover both fundamentals and advanced aspects of climate change. Below is just a small sample:

- <u>12.003 Atmosphere, Ocean and Climate Dynamics</u> is an undergraduate course that introduces the physics governing the circulation of the ocean and atmosphere, and the processes that control Earth's climate.
- <u>12.842 Climate Physics and Chemistry</u> surveys the beginnings of the solar system, time scales, and climate in human history as a background to understanding climate science..
- <u>15.023J Climate Change: Economics, Science, and Politics</u> is a graduate course that introduces the scientific, economic, and ecological issues that underlie the threat of global climate change.

New Courses

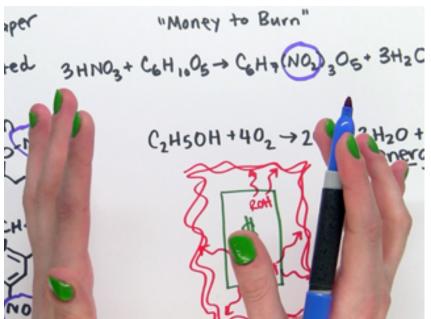
- 4.605 Introduction to the History and Theory of Architecture
- <u>7.342 To Divide or Not To Divide: Control of Cell Cycle and</u>
 <u>Growth by Extracellular Cues</u>
- 15.031J Energy Decisions, Markets, and Policies
- 16.400 Human Factors Engineering
- 21F.064 Intro to Japanese Culture

Updated Courses

- <u>1.00 Introduction to Computers and Engineering Problem</u>
 <u>Solving</u>
- 4.602 Modern Art and Mass Culture
- 6.006 Introduction to Algorithms
- 18.337J Parallel Computing
- 21H.209 America in Depression and War
- 21L.002X Foundations of World Culture II: World Literatures
 and Texts
- 21L.011 The Film Experience
- HST.S14 Health Information Systems to Improve Quality of Care in Resource-Poor Settings

> Find courses that interest you> Subscribe to the RSS

Highlights for High School



Jessica Harrop describes the chemistry involved in the "Money to Burn" demonstration.

We hope our <u>Chemistry Boot Camp series</u> put you in the mood for even more chemistry!

We think you'll enjoy another chemistry video series called <u>Chemistry</u> <u>Behind the Magic: Chemical Demonstrations for the Classroom</u>.

These videos feature exciting live chemistry demonstrations, enhanced by explanations of the science behind the demonstration, in a fun and easy to understand format.

> See Chemistry Behind the Magic

Views from Supporters



"It's not for MIT to thank me for the donation, but the reverse, cause anybody cannot reward this wonderful OCW project enough.

I take the opportunity to congratulate the staff for having the idea to this and also to make available those high quality lectures.

I am aware about the OCW since 2004, when I was doing my masters in

Belgium. And I was always interested in supporting this, but the opportunity was not presented.

As a university teacher, I like updating myself in reading and conducting research. I do take advantage of those lectures to revise, correct and update my courses for students.

I had gotten the lectures from the website, however after the January 2012 earthquake, the whole database has been given to Haiti (School of Science).

So, the thanks are not only from me, but also from the Haitian university community, and anyone that likes knowledge and from every poor country that would never access to such benefits.

So, thanks again and continue the good work that I think everyone is aware of and proud of."

- Ronald, Educator, Haiti

> Read more

Tell us what you think of OCW at <u>ocw-feedback@mit.edu.</u>



MIT OpenCourseWare is located at: One Broadway, Cambridge, MA 02142