

In the September 2013 Newsletter

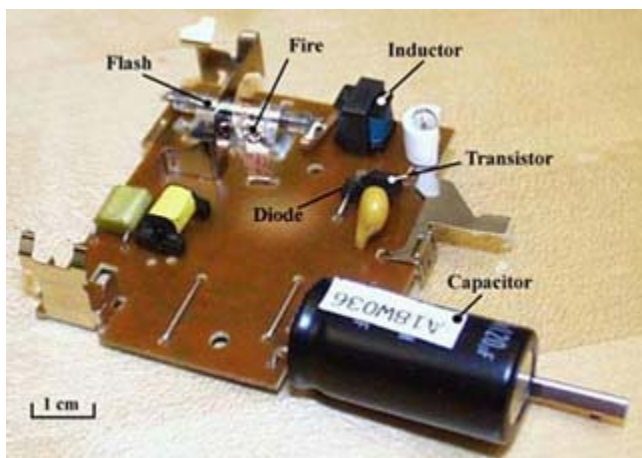
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Understanding Open Education Opportunities at MIT

With the launch of the new MITx course [2.03x Dynamics](#) and the near simultaneous publication of the new OCW Scholar course [2.003SC Engineering Dynamics](#), along with the long-available MIT OCW publication of [2.003 Modeling Dynamics and Control I](#), we have a great opportunity to better understand the spectrum of digital learning opportunities now available from MIT. These are not exactly the same course in each case (2.03 is a new generation of curriculum replacing 2.003 in the residential program), but they are close enough for purposes of illustration:

OpenCourseWare

The traditional OCW publication of [2.003 Modeling Dynamics and Control I](#), is a static publication of course materials gathered after the conclusion of a residential MIT class. Presented on the OCW site, this is an openly licensed and openly published catalog of content, organized by content type.



The vital electric components of the flash circuitry in a single-use disposable camera. In this device, a LC circuit generates a high voltage to fire the flash bulb. (Image by Prof. David Trumper.)

The materials are designed to be used as a reference for educators creating courses and curricula at their own institutions, students seeking alternative explanations of key discipline topics, and as general informal learning

DONATE NOW >

We hope you learned something new or refreshed your memory on a topic you've previously studied.

If you enjoy OCW resources and can afford to support OCW, then please consider [donating to OCW](#) today.

Your gift demonstrates your commitment to knowledge as a public good and shows our sponsors and funders how much our visitors value the site.

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materials for lifelong learners. The site supports no interactivity with other site users or the MIT community, and no recognition is given for use of the materials. Because this model publishes preexisting content and does not include significant instructional design work, it is relatively inexpensive to produce, allowing OCW to present thousands of courses in this format.

OCW Scholar

Also presented on the OCW site, 2.003SC Engineering Dynamics is a special type of OCW publication designed to serve the needs of independent learners. OCW Scholar courses include very robust sets of course materials organized in logical sequences of units rather than the organization by content type that is used in the standard OCW presentation. The starting point for these courses is existing residential course content, but significant alterations and additions are required.



The principles of engineering dynamics are incorporated into the design of buildings, planes, boats, and underlie and explain phenomena we see every day. (Image courtesy of [nouspique](#) on Flickr.)

The OCW Scholar courses (of which there will be a total of 15) are designed specifically for independent learning, but they still follow the basic tenets of the OpenCourseWare model: openly licensed content, open access (with no registration), no interactivity, no registration. While the focus is on independent learning, the materials can still be used as a reference for educators and students—although it is a little more difficult to browse through the content. Because these courses involve instructional design and content creation, they are much more expensive to develop than standard OCW courses.

MITx

Rather than being publications of open content, MITx



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courses such as [2.03x Dynamics](#) are true online learning environments. Because the focus here is on teaching students rather than sharing content, the materials are not openly licensed, but they include content that would not be sharable in an open publication, such as commercial textbooks. Interactive assessments of student work are built into the materials. The site supports student-to-student interaction, and limited interaction between the teaching staff and students. Successful completion of course requirements is recognized by a certificate of achievement.



Here, the focus is on learning. Registration is required, there are schedules to be followed, and assessments to complete. Because these materials are available for limited times, the materials are not openly licensed, and progression through them is more limited, the MITx courses do not work as references and sources of content in the same way as the OCW publications above. But they do provide a learning experience significantly beyond that which OCW materials can support.

So whether you are looking for a quick answer to a question, inspiration as you design a course, or an opportunity for a deep, guided dive into a subject along with other students, MIT has a digital learning opportunity for you.

New Courses

- [ES.S41 Speak Italian With Your Mouth Full](#)
- [6.046J Design and Analysis of Algorithms](#)
- [17.922 Dr. Martin Luther King, Jr. IAP Design Seminar](#)
- [18.357 Interfacial Phenomena](#)

Updated Courses

- [ESD.36 System Project Management](#)
- [8.592J Statistical Physics in Biology](#)
- [16.660J Introduction to Lean Six Sigma Methods](#)
- [WGS.615 Feminist Inquiry: Strategies for](#)

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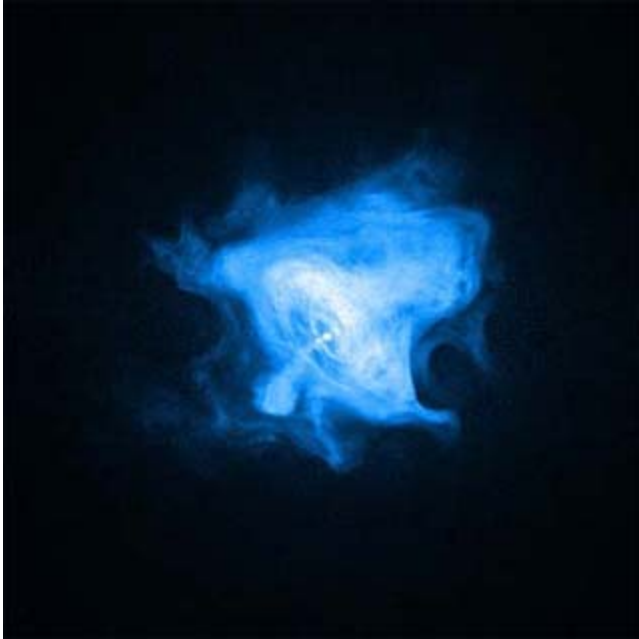
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Highlights for High School



This image gives the first clear view of the faint boundary of the Crab Nebula's X-ray emitting pulsar wind nebula. (Image courtesy of [NASA/CXC/SAO/F. Seward, et al.](#))

You may have recently heard that NASA's Voyager 1 spacecraft officially entered interstellar space; it's approximately 12 million miles from Earth.

If you find this fascinating, we encourage to check out the Chandra Astrophysics Institute's course on Highlights for High School.

The program was held on the MIT campus for students in grades 9-11 to train for and undertake astronomy projects.

Learn about black holes, supernovas, galaxy clusters, and much more.

> [Visit Chandra Astrophysics Institute](#)

MITx News



MITx introduces 'XSeries' course-sequence certificates on edX

EdX also introduces new ID verification service.

MITx, the massive open online course (MOOC) effort at MIT, has announced new certificates for completion of sequences of related modules or courses on the edX platform. The sequences, called "XSeries," represent a new approach to MOOC instruction and certification across integrated offerings more expansive than the individual courses that have thus far defined the MOOC landscape.

The two initial XSeries sequences are "Foundations of Computer Science" and "Supply Chain and Logistics Management." Curriculum for each XSeries is developed by MIT faculty members and overseen by their academic departments.

"These sequences are an opportunity for MIT to both explore how subjects can be addressed in depth through the MOOC format and to better understand student interest in various types of certification," said Anantha Chandrakasan, the Joseph F. and Nancy P. Keithley Professor of Electrical Engineering at MIT and head of MIT's Department of Electrical Engineering and Computer Science (EECS). "XSeries sequences allow our departments to reimagine the building blocks that structure teaching in our disciplines for the digital environment."

Each XSeries will cover content equivalent to two to four traditional residential courses and take between six months and...

- > [Read the complete article](#)
- > [View the XSeries requirements](#)

Views from Supporters



"I've been using MIT OCW as an important source for academic material since the last 5years and I feel it's worth



supporting this great initiative!"

- Rene, Student -
College/University, Sweden

[> Read more](#)

Tell us what you think of OCW [here](#).



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