Massive Open Online Courses (MOOCs) differ from face-to-face courses in a number of ways:

- **Resources** available to support your course innovations are greater.
- **Time commitment** is significant for developing a MOOC.
- Innovative strategies for supporting **student engagement** are essential.
- Creative methods for **assessing student learning** are necessary.
- **Alternatives to copyrighted course materials** need to be considered.

Below we list information around each of these areas, which we expect will be helpful as you craft your proposal. In advance of drafting your proposal you should also familiarize yourself with existing MOOCs, especially those offered by edX.

If you have any questions in the course of developing your MOOC proposal, please contact our support team at: innovprojects@cornell.edu. Rob Vanderlan, Center for Teaching Excellence will be the key advisor in the pre-proposal stage.

**Resources**

One difference between creating a MOOC and designing a traditional course is in the level of support available. Once your proposal is accepted, you will have a team of instructional and technological specialists to assist you in the design, development, implementation, and launch of your MOOC, as well as to advise you about related innovations and sustainability.

**Who is your support team, as you design your CornellX MOOC?**

The team includes the staff at the Center for Teaching Excellence, Academic Technologies, and the University Library:

- The **Center for Teaching Excellence** provides pedagogical support including assistance in developing an on-line syllabus, formulating learning outcomes, organizing course content into effective modules, and creating meaningful assessments.

  Rob Vanderlan, Distance Learning Specialist
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- **Academic Technologies** supports the development and production of the course within the edX platform including recording video lectures, content digitization and distribution using edX tools such as online tests, homework submission, and discussion boards.
  
  Mike Tolomeo, Instructional Media Manager  
  innovprojects@cornell.edu

- The **University Library** supports the selection of resources for the course and required permissions for materials under copyright, including textbooks, digital images, videos, etc.
  
  Jaron Porciello, Digital Scholarship Coordinator  
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**Time Commitment**

MOOCs are typically shorter than traditional courses, varying in length from 5 to 12 weeks, with shorter courses more successfully retaining students. But despite the shorter course length, creating a MOOC takes substantially more time than preparation for a traditional new course. The amount of time will vary depending on the duration and design of the online course.

*What is involved when a MOOC is under development?*

- **Advance planning** includes all aspects of the course design, from lectures to assignments to grading criteria. Each course element will need to be completed before the course actually launches on edX, and a complete course blueprint is submitted within a couple of months of acceptance.

- **A course development timeline** is developed, designed to allow enough time to build and launch an edX course. An example for a course that would be launched in February 2015 follows:

<table>
<thead>
<tr>
<th>Course design:</th>
<th>July – September, 2014</th>
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<tbody>
<tr>
<td>Develop course goals and blueprint that outlines the included learning modules and course duration.</td>
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<tr>
<th>Course initialization on edX:</th>
<th>October 2014</th>
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<tr>
<td>Four months prior to course launch—Initial course information, instructional goals, and outline of weekly learning modules completed.</td>
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<tr>
<th>Course design and production:</th>
<th>September 2014-January</th>
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</table>
Three weeks prior to launch date—Complete instructional design of each learning module, record video, and develop course on edX platform.

Launch and implement course

| 2015 |

February 2015- May 2015

What is involved when a MOOC is launched?

- Course administration, including monitoring the class and responding to students, can take up a lot of TA and instructor time.
- TA support is vital for course administration (TAs can monitor discussion boards and help manage the course), but is highly recommended for course planning and production. TAs can also help develop course content and design assessments.
- Support for edX MOOCs will be provided by Academic Technologies during launch and implementation.

It's useful to reflect on your other commitments, professional, travel, and teaching. If possible, don’t plan to teach or prepare a new course while you are developing and offering the MOOC.

Student Engagement

Engaging students in an online environment like a MOOC is challenging and essential. Large attrition rates are common for MOOCs.

How can you engage students with your course content, with each other, and with you?

This effort often requires innovative thinking and creative ideas. Some considerations around engaging students include:

- Students in MOOCs are different from typical university students. They come from all over the globe, and from different contexts, life experiences, educational levels, English language skills, motivations for taking the course, and levels of commitment to your MOOC.
- MOOC instructors thus must acknowledge a range different student motivations, including those who want to master all of the material and will complete all assignments, as well those who simply want to audit the course.
- To maintain student engagement, key effective practices include breaking the course down into smaller units, and identifying what students will be able to know or do after the unit and how the material will apply to them or answer
their needs. Students are more likely to stay in a course if they find the material engaging and understand why it is important and how they might use it.

- You can increase engagement by building in frequent and varied opportunities for students to interact with the material through questions, problems, or projects.
- You can use discussion forums to deepen course involvement, encourage students to learn from each other, and broaden the course by giving a voice to diverse perspectives.
- Some other strategies that have been successfully used to engage students include peer review of student work and group projects or assignments.
- There are also methods available, to enable you to simulate face-to-face interaction with the students. Some ideas include timely video updates on discussions or assignments, and videos that create the perception of office hours.

Assessing Student Learning

Methods of assessment you have used in the past will likely need to be reshaped to work for the extremely large numbers of students in a typical MOOC (30,000-50,000, on average). Assessing in MOOCs is challenging, but instructors and course designers have come up with many creative and effective ways to address this challenge.

What creative ways can be included to enable students to demonstrate their learning?

Considerations for designing assessment processes include:
- Manual grading of or response to quizzes, exams, or papers is not possible.
- Thoughtfully designed machine-graded quizzes and exams can effectively assess student learning.
- Self-graded and peer-graded writing assignments can offer opportunities for both substantive and reflective assessment.
- To support peer-grading, you can set clear expectations for assignments and provide grading guidelines and rubrics.
- Group projects or assignments can offer opportunities for collaborative learning.

Alternatives to copyrighted course materials

Most MOOC platforms, including edX, require that course readings be open access and free, which frequently means that traditional textbooks, books, and journal articles are
not available to be used. In general, however, MOOCs rely less on outside reading than do traditional courses.

*How can instructors find alternative resources to the copyrighted materials used in traditional courses?*

- Work with the University Library to find out whether publishers will grant permissions for desired content.
- The support team in the Library will help you locate alternative readings when necessary.
- Design the course to work without substantial outside reading, if necessary.

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**MOOC Support Team**

Rob Vanderlan, Distance Learning Specialist  
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Jaron Porciello, Digital Scholarship Coordinator

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