

Innovative Sustainable Forest Management in the Asia-Pacific Region

Introduction and Showcase

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Chair of AP-FECM
Dean and Professor, UBC Faculty of Forestry
Feb. 24, 2016

Manila, Philippines

Outline

- Development of SFM online courses
- Showcase of courses on edX-edge platform
- Brief introduction to certificate program

Opportunities and challenges from MOOCs

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The Year of the MOOC



Clockwise, from top left: an online course in circuits and electronics with an M.I.T. professor (edX); statistics, Stanford (Udacity); machine learning, Stanford (Coursera); organic chemistry, University of Illinois, Urbana (Coursera).

By LAURA PAPPANO
Published: November 2, 2012

IN late September, as workers applied joint compound to new office walls, the building's old walls were being demolished.

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New York Times:

2013: The year of the MOOC

Instruction for Masses Knocks Down Campus Walls

College of Future Could Be Come One, Come All

The Revolution Hits the Universities



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Popular Specializations



Forestry Online Course Development for the Asia-Pacific Region

- Since November 2011, the Forestry Deans' Committee has undertaken regional surveys, issues and priority identification processes
- Six courses have been identified by 12 partnering universities in the region
- Leading professors for course development confirmed
- UBC CTLT and the Faculty of Forestry developed a demo template
- UBC provided technical support and capacity training to the project

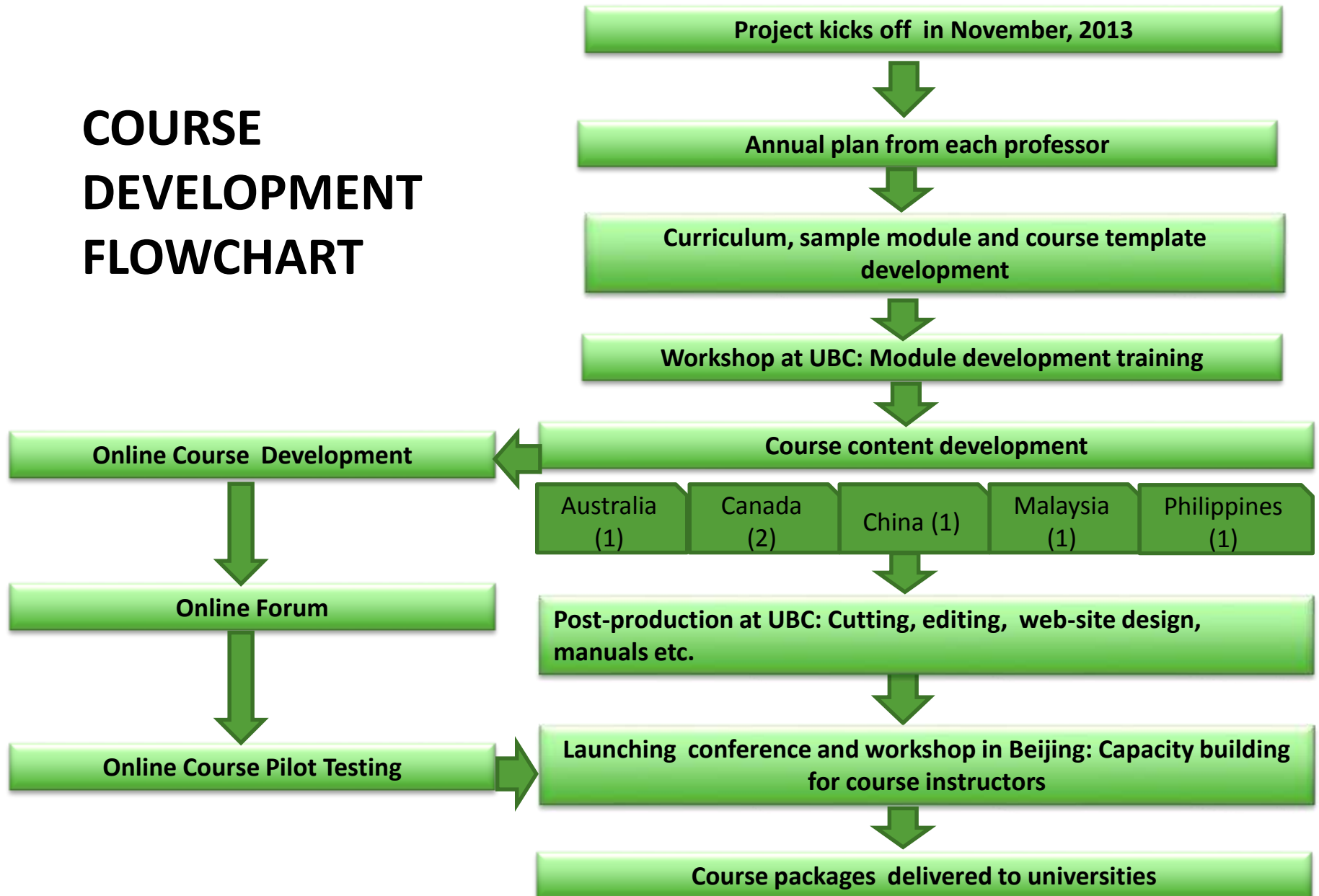
Main Goal:

Create a program that leads to a credentialed degree in Forestry, develop and build self-directed learning courses with course content as open education resources for the Asia-Pacific region.

Multinational Multi-University Collaboration

- Universities from 5 countries
 - Australia, Philippines, Malaysia, China, and Canada
- Target
 - Six Courses:
 - Sustainable Forestry in a Changing World (UBC)
 - Forest Governance, Public Relations, & Community Development (UPLB)
 - International Dialogue on Forestry Issues (UBC)
 - Sustainable Use of Forest Ecosystem Services (UPM)
 - Restoration of Degraded Forest Ecosystems & Forest Plantation Development (UM)
 - Forest Resource Management and Protection (BFU)

COURSE DEVELOPMENT FLOWCHART



Production Centre and Quality Control at UBC

- Sample (template) module development at UBC
- Workshops at UBC:
 - Module development training
 - Curriculum development evaluation and cooperation
 - Copyright issues
- Online forum at BFU with support from UBC

SFM Online Courses



Open Education Resources (OER)

Stand alone, independent courses

- Content free
No license or copyright concerns or fees
- Content rich
e.g. lecture capture presentations, videos, text
- Self-learning
Self-tests
Reflective questions
Self-directed fora

Open Education Resources (OER)

Entire course or 'parts of' courses can be re-purposed

- In current programs
- In other online courses
- In face-to-face classroom teaching
- Support blended or flipped classroom approaches
- Foundation to new programs, Certificates, Diplomas and Masters in Sustainable Forestry programs

Course Design and Development

Team-based approach

- UBC Forestry Leads
 - Academic Project Leader (1)
 - Project Coordinator (1)
- UBC CTLT Central Support
 - Project Coordinator (1)
 - Instructional Designer (1)
 - Web Designer (1)
 - Graphic Designer (1)
 - Media Expert (1)
- Local Institute Development Team
 - Leading Professor (6)
 - Course Co-authors (11)
 - Media Support Assistants/Professionals (multiple)



Example Course Layout

The image shows a screenshot of a web browser displaying an edX course syllabus. The browser's address bar shows the URL: <https://edge.edx.org/courses/course-v1:UBC+APFN0001+2015W2/courseware/165c915ca8e94910ab293fe2ae464271/a...>. The page header includes the edX logo, the course title "UBC: APFN0001 APFN0001 Sustainable Forest Management in a Changing World", and the user name "HailanChen".

The main banner features the APFNet logo on the left, a photograph of a yellow and black bird perched on a branch in the center, and the course title "Sustainable Forest Management in a Changing World" in large yellow text on the right. Below the title, it says "APF Net Curriculum 1".

A dark navigation bar below the banner contains the following links: HOME, START HERE, OVERVIEW, MODULE I, MODULE II, MODULE III, MODULE IV, MODULE V, and MODULE VI. A search icon is located on the right side of this bar.

Below the navigation bar is a large, colorful collage of images related to forest ecology. The collage includes a forest path, a close-up of tree bark, a beetle, a bird, a deer, a wolf, a flower, a map, and a forest landscape. The title "Sustainable Forest Management in a Changing World" is overlaid in yellow text on a black background across the top of the collage.

Example Course Layout



START HERE

[WELCOME TO THE COURSE](#)

[MEET YOUR INSTRUCTOR](#)

[TOUR THE COURSE SITE](#)

MEET YOUR INSTRUCTOR

Hello! My name is John Innes (you can call me John) and I am your instructor for this course.

I am currently the Dean of Forestry in the Faculty of Forestry at the University of British Columbia. I got here via a circuitous route that involved doing undergraduate and PhD degrees at the University of Cambridge in the UK, working for a while at what was then University College Cardiff in Wales, followed by a short stint at the Climatic Research Unit at the University of East Anglia, back in England. My first real job was with the UK Forestry Commission, working on forest health surveys. After seven years I moved to Switzerland to do much the same job (but a lot better paid!), before coming to UBC in 1999. At UBC, I hold a position called the FRBC Chair of Forest Management, which was set up by an organization called Forest Renewal BC. The organization no longer exists, but its legacy lives on. As part of this, an important part of my work is to promote sustainable forest management.



Instructor: John Innes

Example Course Layout



OVERVIEW

[COURSE SYLLABUS](#)

[COURSE DESCRIPTION](#)

[COURSE FORMAT](#)

[COURSE OBJECTIVES](#)

[COURSE MATERIALS](#)

[COURSE SCHEDULE](#)

[COURSE STRUCTURE](#)

[STUDENT EVALUATION](#)

[TECHNICAL REQUIREMENTS](#)

[DEVELOPMENT TEAM](#)

COURSE OVERVIEW

- [Course Syllabus \(PDF\)](#)
- [Course Description](#)
- [Course Format](#)
- [Course Objectives](#)
- [Course Materials](#)
- [Course Schedule](#)
- [Course Structure](#)
- [Student Evaluation](#)
- [Technical Requirements](#)
- [Development Team](#)

Example Course Layout

HOME START HERE OVERVIEW MODULE I MODULE II MODULE III MODULE IV MODULE V MODULE VI



MODULE I

MODULE I: INTRODUCTION

MODULE I: OBJECTIVES

TOPIC 1: ORIGINS OF SUSTAINABLE FOREST MANAGEMENT

TOPIC 2: A CANADIAN VARIATION

TOPIC 3: ITTO'S SUSTAINABLE FOREST MANAGEMENT PRINCIPLES

TOPIC 4: THE MONTREAL PROCESS

MODULE I: SUMMARY

MODULE I: SELF-ADMINISTERED QUIZ

TOPIC 1: ORIGINS OF SUSTAINABLE FOREST MANAGEMENT

Introduction

Background Info

Video Lectures

Resources

Self-test

Background Info

Topic 1 Origins of sustainable forest management

Many of the ideas behind sustainable forest management extend back several hundred years. However, today's ideas about sustainable forest management differ from the concept of sustained yield promoted in Germany in the 18th century, which focussed on the sustained production of timber. Sustainable forest management, as you will learn, is much more holistic approach to managing forest ecosystems.



Example Course Layout



HOME START HERE OVERVIEW MODULE I MODULE II MODULE III MODULE IV MODULE V MODULE VI



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Video Lectures

1.1.1 The evolving context of sustainable forest management

The evolving context of
sustainable forest
management

Example Course Layout

MODULE I

MODULE I: INTRODUCTION

MODULE I: OBJECTIVES

TOPIC 1: ORIGINS OF SUSTAINABLE FOREST MANAGEMENT

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MODULE I: SELF-ADMINISTERED QUIZ

TOPIC 1: ORIGINS OF SUSTAINABLE FOREST MANAGEMENT

- Introduction
- Background Info
- Video Lectures
- Resources
- Self-test

Self-test

Quiz Description:

The following self-test quiz is designed to check your understanding of important learning concepts for this topic. The quiz contains ten multiple choice questions. There is no time limit for you to take the quiz and you may attempt to take it as many times as you like. After you click the Submit button, you will see your Grade, number of Correct Answers, your answers, and the Answer Key for each question.

Quiz Instructions:

While you are taking the quiz, we advise you not referring to any course materials. After you Submit your answers, you may self-reflect the missing points, review relevant contents as necessary, and re-take the quiz again until you get the full points

Answer the following questions to see how well you have learnt in this topic:

An important idea proposed by Aldo Leopold was known as: *

- The Forest Ethic
- The Water Ethic
- The Land Ethic
- The Air Ethic

Example Course Layout

HOME START HERE OVERVIEW MODULE I MODULE II MODULE III MODULE IV MODULE V MODULE VI



Meet Your Instructor

Tour the Course Site

MODULE I

MODULE I: INTRODUCTION

MODULE I: OBJECTIVES

TOPIC 1: ORIGINS OF SUSTAINABLE FOREST MANAGEMENT

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TOPIC 4: THE MONTREAL PROCESS

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MODULE I: SELF-ADMINISTERED QUIZ

TOPIC 1: ORIGINS OF SUSTAINABLE FOREST MANAGEMENT

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Resources

Self-test

Resources

- Leopold, A. (1948). *The land ethic*. Retrieved from <http://home.btconnect.com/tipiglen/landethic.html>
- Interagency Scientific Committee, United States. (1990). *A conservation strategy for the northern spotted owl*. Retrieved from http://www.fws.gov/arcata/es/birds/nso/documents/ConservationStrategyForTheNorthernSpottedOw_May1990.pdf
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- Forest Service and Bureau of Land Management, United States. (1994). *Standards and guidelines for management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl*. Retrieved from <http://www.reo.gov/documents/reports/newsandga.pdf>
- Thomas, J. W., Franklin, J. F., Gordon, J., & Johnson, K. N. (2005). The northwest forest plan: Origins, components, implementation experience, and suggestions for change. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1523-1739.2006.00385.x/pdf>
- MacCleery, D. (n.d.). *Re-inventing the United States forest service: Evolution from custodial management, to production forestry, to ecosystem management*. Retrieved from <http://www.fao.org/docrep/010/ai412e/AI412E06.htm>

Access to SFM Online Courses

- All six courses have been posted to the course blog sites by Nov 2015

<http://blogs.ubc.ca/apfnet01/>

<http://blogs.ubc.ca/apfnet02/>

<http://blogs.ubc.ca/apfnet03/>

<http://blogs.ubc.ca/apfnet04/>

<http://blogs.ubc.ca/apfnet05/>

<http://blogs.ubc.ca/apfnet06/>

- Or go to AP-FECM's website: <http://apfecm.forestry.ubc.ca/sfm-online-courses/>



SFM Online Courses



Course One: Sustainable Forest Management in a Changing World

AP-FECM Certificate Program

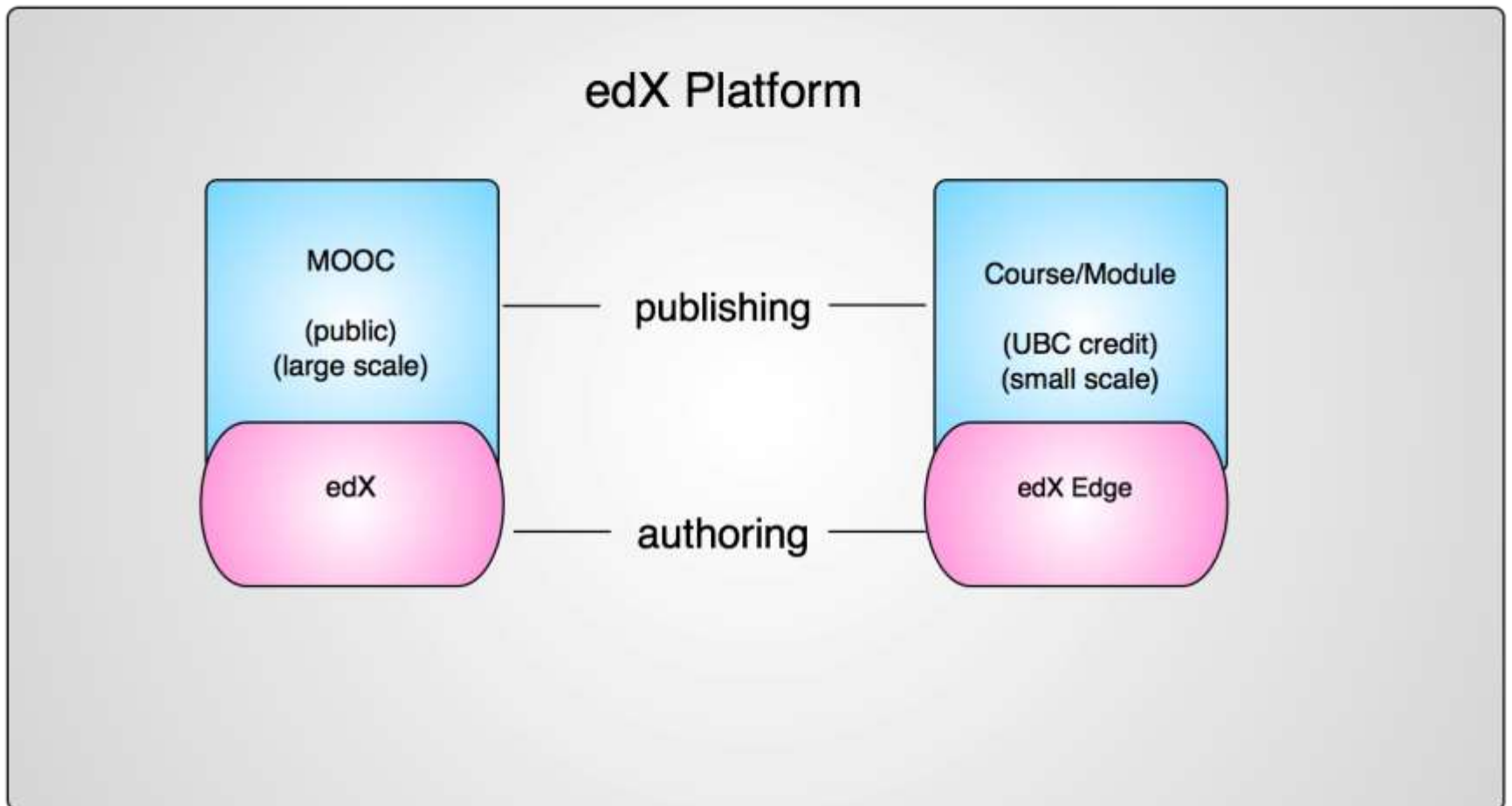
- The AP-FECM certificate program will be initiated using the six SFM online courses that have already been developed
- The AP-FECM certificate program will be open to forest stakeholders including senior forestry students, young faculty and mid-career professionals in the Asia-Pacific region
- To receive the AP-FECM SFM program certificate, students will need to complete six courses and pass the final assessment of each course to get a total of 18 credits

EdX Edge web-based course platform has been selected as the provider of the Certificate program



The image shows a screenshot of the EdX website. At the top, there is a navigation bar with the EdX logo and links for 'Courses', 'How it Works', 'Schools & Partners', and 'About'. A search bar on the right contains the text 'I want to learn about...'. Below the navigation bar is a large banner with a background image of a man working on a laptop. The banner text reads: 'Learn from the best. Anytime. Anywhere. Join our growing global community of over 5 million learners'. A blue button labeled 'Find Courses' is positioned at the bottom left of the banner. At the bottom of the page, there is a row of logos for partner institutions: MIT, Massachusetts Institute of Technology, Harvard University, Berkeley University of California, The University of Texas System, and a logo for a place of mind at the University of Eastern California.

Platform for APFNet Certificate Courses: UBC edX (Edge)



Features of edX/Edge

Closed Learning Management System (LMS)

- Log in without UBC CWL
- Open to external learners
- Track learner activity and engagement
- Scalable to MOOC if needed

Interactive Learning Community

- Inbound communications: discussion board & wiki
- Outbound communications: announcements & email
- Additional communications: web conferencing & social media

Variety of learning content/materials

- Videos, text pages, problem sets
- Link to e-textbooks and other external sources

Variety of assessment types

- Multiple choice, numeric input, math expressions, drag-and-drop
- Problem types allow hints and immediate feedback
- Peer and self assessment tool
- Additional assessment types possibly integrated with the LTI

Look & Feel of SFM Certificate Course on UBC edX (Edge)

The screenshot shows a web browser window displaying the course syllabus page. The browser's address bar shows the URL: <https://edge.edx.org/courses/course-v1:UBC+APFN0001+2015W2/courseware/165c915ca8e94910ab293fe2ae464271/a...>. The page header includes the edX logo, the course title "UBC: APFN0001 APFN0001 Sustainable Forest Management in a Changing World", and the user name "HailanChen".

Below the header, there is a navigation bar with tabs for "Courseware", "Course Info", "Discussion", "Wiki", "Progress", and "Instructor". The "Courseware" tab is selected.

The main content area is titled "Overview > Overview > Course Syllabus". It features a horizontal navigation bar with document icons and a "VIEW UNIT IN STUDIO" button. A "Bookmark" button is also visible.

The syllabus content is displayed in a large, dark-themed box with the following text:

APF Net Curriculum 1
Sustainable Forest Management in a Changing World

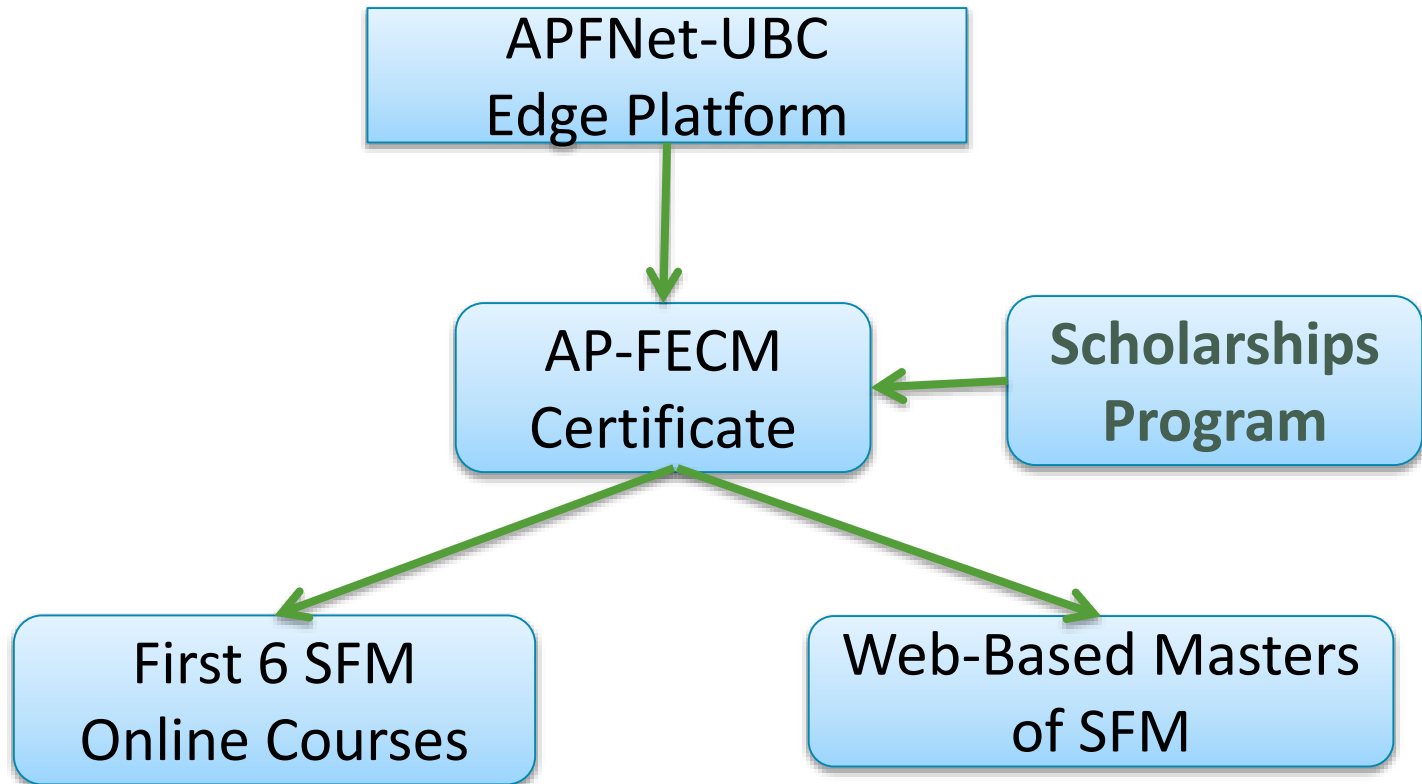
The left sidebar contains a "Bookmarks" section and a list of course sections: "Start Here", "Welcome to the Course", "Meet Your Instructor", "Tour the Course Site", "Overview", "Module 1", "Module 2", "Module 3", and "Module 4".

Potential new courses for next phase

Six new proposed courses focused on tropical forests:

- Plantation design and management
- Geomatics in forestry measurement
- Climate modelling and forest application
- REDD and forest carbon management
- Forest resources decision making
- Community forests and livelihoods

Certificate/Degree Program for SFM Online Courses



Web-Based Masters of Sustainable Forest Management

