

Repurposing Open Education Resources (OER) in Sustainable Forest Management amid Global Pandemic: Lessons Learned and Future Implementation

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May 4th, 2022



OUTLINE

1. CHALLENGES FACED

2. SOLUTIONS DEVISED

3. STUDENT SATISFACTION/LEARNING

4. FUTURE APPLICATION



UBC Application of existing Open Educational Resources (OER)

Innovative Pedagogy

Blended learning: video lecture + face-to-face teaching

Flipped classroom: self-study + video conferencing discussion

Instructor-led Open session to Asia Pacific



FODE 001-Dev Sustainable Forest...
FODE.001.Dev



FODE 002-Dev Forest Governanc...
FODE.002.Dev



FODE 003-Dev International Fore...
FODE.003.Dev



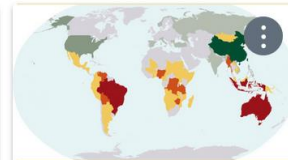
FODE 007-Dev Plantation Design ...
FODE.007.Dev



FODE 008-1-Dev Structure and C...
FODE.008-1.Dev



FODE 009-Dev Geomatics in Fore...
FODE.009.Dev



FODE 013-Dev Forests in a Chang...
FODE.013.Dev



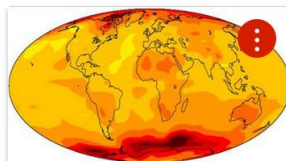
FODE 004-Dev Forest Ecosystem ...
FODE.004.Dev



FODE 005-Dev Restoration of De...
FODE.005.Dev



FODE 006-Dev Forest Resource ...
FODE.006.Dev



FODE 010-Dev Climate Modelling...
FODE.010.Dev



FODE 011-Dev Conservation in A...
FODE.011.Dev



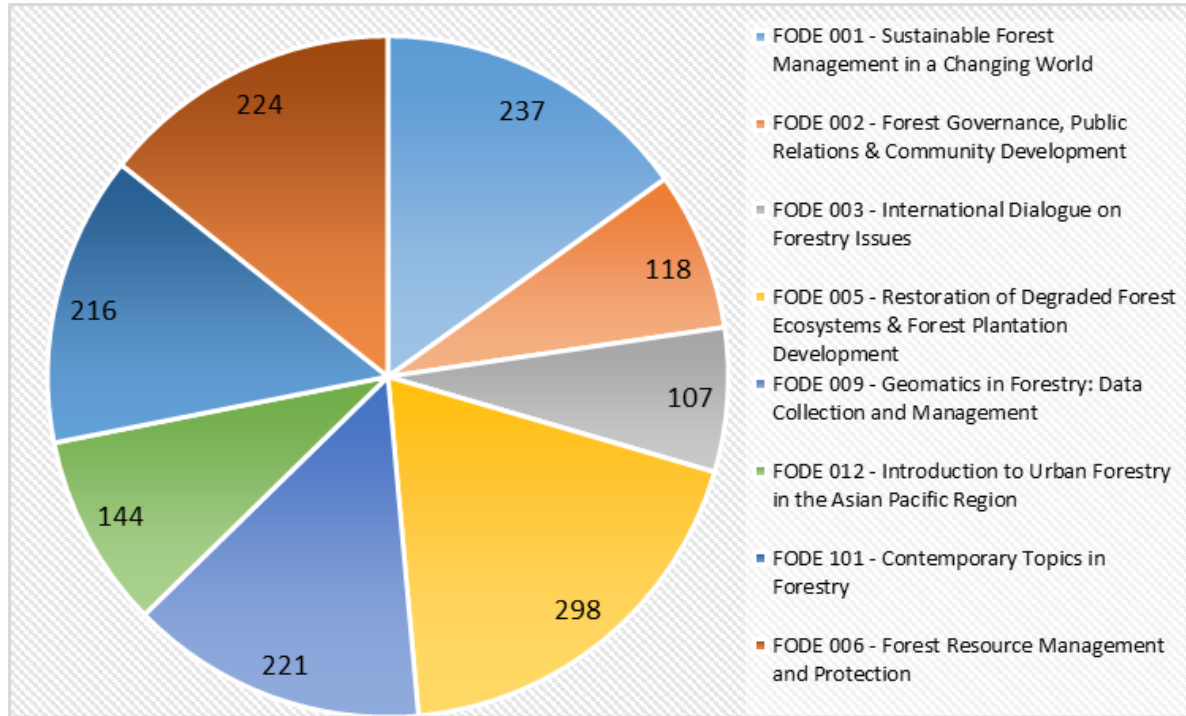
FODE 012-Dev Introduction to Ur...
FODE.012.Dev



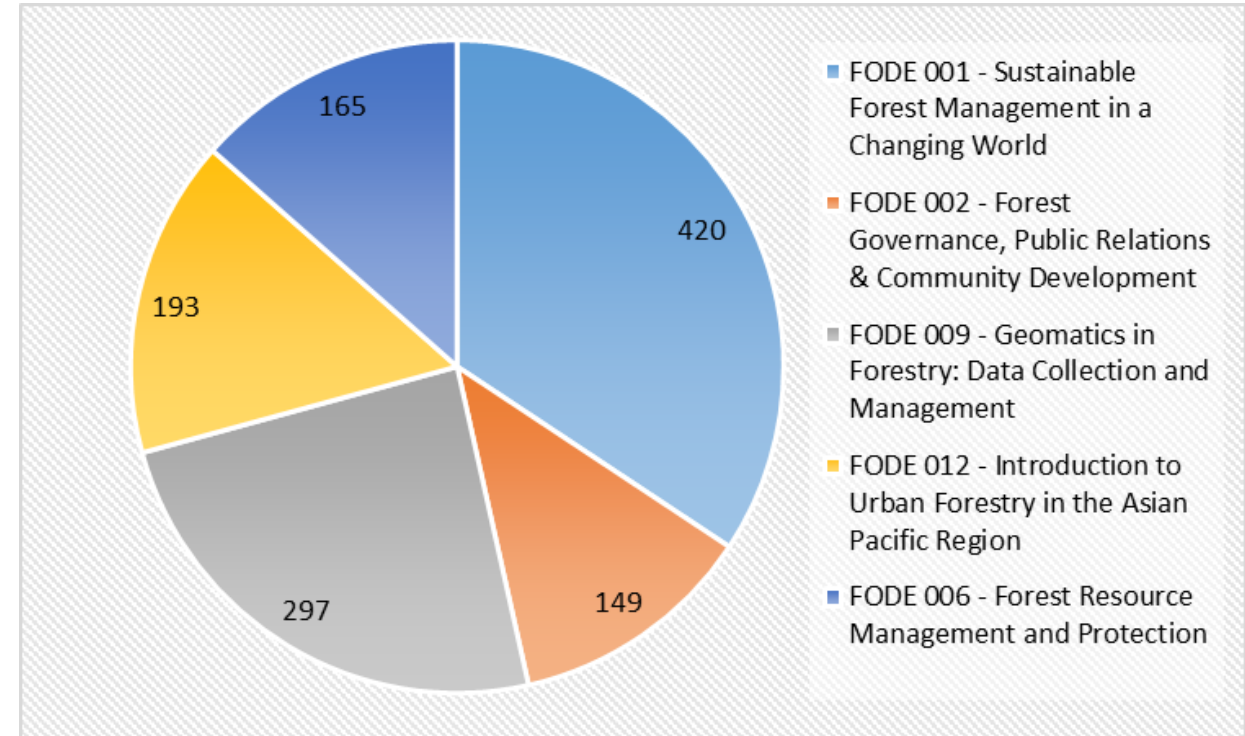
FODE 014-Dev Natural Forest Ma...
FODE.014.Dev



In Response to COVID-19 closure 2 sessions (Feb-April 2020 & Sep-Nov 2020) were offered using existing OER courses in Sustainable forest management (free)



I Offering registered by **~1500 students** from **33 universities**



II Offering registered by **~1200 students** from **135 universities**

CHALLENGES FACED

Challenges in course design

- Select and rearrange the OER course materials within required weeks of study
- Come up with feasible repurposed course schedule
- New instructors/facilitators online teaching

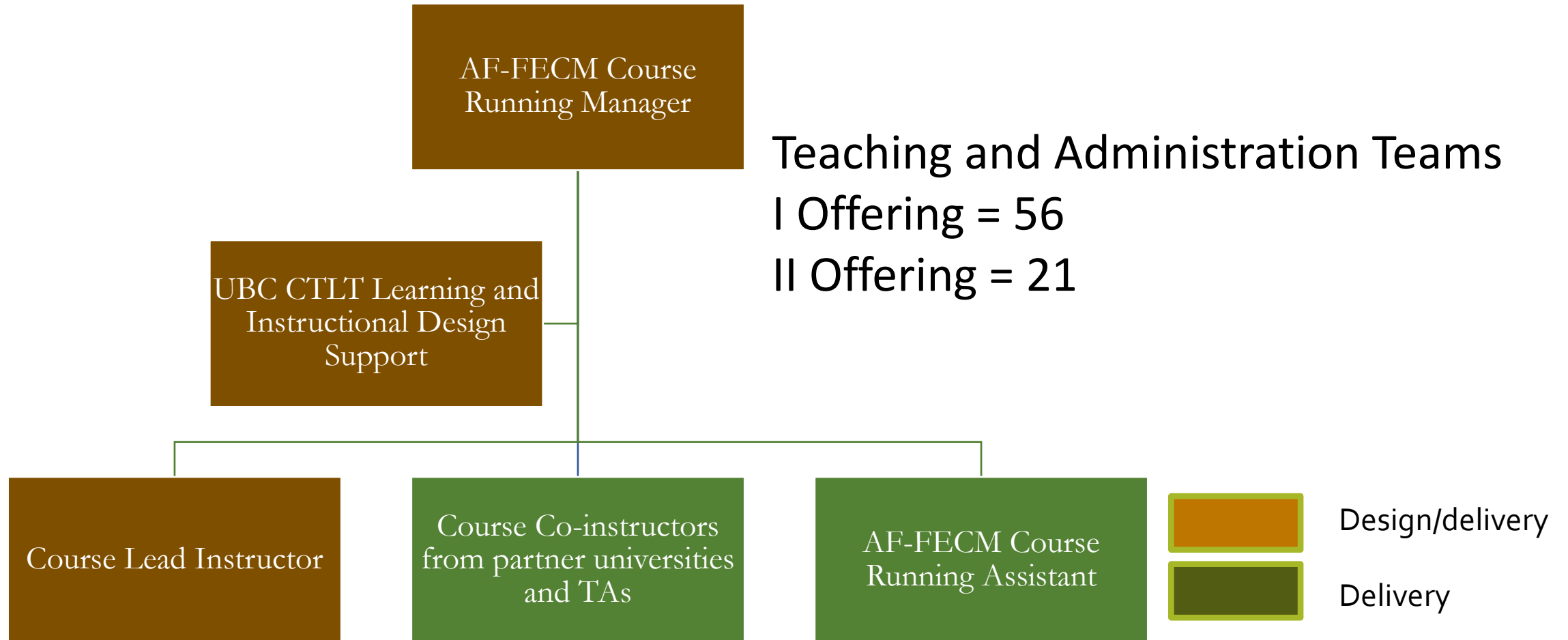
CHALLENGES FACED

Challenges in course delivery

- Interactive Learning Management System (LMS)
- Require dedicated instructors/TAs for teaching large number of students
- Potential inconsistency in assignment grading especially when many instructors/TA involved
- Providing instant feedbacks to large number of students
- Interactive learning activities
- Retaining and motivating students to complete the course
- Student expectation of direct interaction with instructor

ACTIONS TO ADDRESS REPURPOSED OER COURSE DESIGN

To address challenges in course design, we adopted team-based course design/delivery model to select and rearrange OER course materials within required weeks of study



Detailed course syllabus with weekly topics/learning activities were designed for feasible repurposing OER course schedule (9-13 weeks)

Syllabus

Forestry Online Course on Sustainable Forest Management in a Changing World

Course Description

The course guide s...
changing in relat...
this dis...
an imp...

Learning Activities

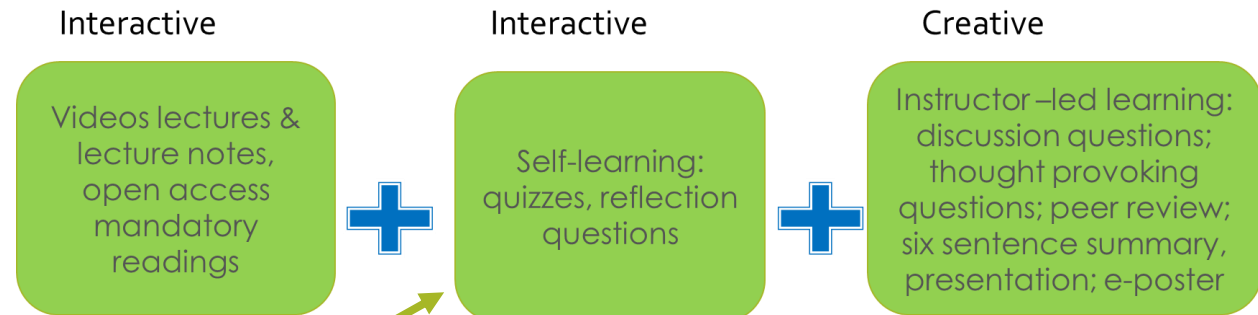
This course is based on the collaborative learning, which contains online lectures and supplementary readings on various aspects of sustainable forest management in the changing... most im...

Learning Schedule

Week	Modules	Topics	Video/Readings	Activity and assignment due
1	Course Orientation (Sep 21-27)	Get familiar with the system, find your group membership, post video introduction and complete pre-course survey		<ul style="list-style-type: none"> Post self-video introduction as soon possible but

Self-Intro
introduc...
expecta...

Typical weekly learning activities



Completion Assessment

Completion of the course will be graded as the following. The passing gr...

Components	Points
Pre-course Survey (1)	5
Self-Introduction (1)	5
Self-administered Quizzes (8)	8 x 10 = 80
Thought provoking question and peer comment (3)	3 x (10+10)=
Writing Key Summary Activity and peer comment (3)	3 x (10+10)*
Module Topic Discussion and peer comment (3)	2 x (10+10)*
Post-course Survey (1)	5

Note: *Individual's initial response and peer-comment post in the activi...

Grading Rubric for Each Thought-provoking Question Activity

Criteria (Points)	A (20-16 pts)	B (15-14 pts)	C (13-12 pts)	F (11-1 pts)
Quantity and Quality of discussion questions	(10-8) <ul style="list-style-type: none"> Post two or more thought provoking questions within deadline that results in considerable replies and discussions. 	(7.5-7 pts) <ul style="list-style-type: none"> Post two relevant thoughtful provoking question reflecting in-depth thought of the topic materials within due date but do not generate that many replies and discussion 	(6.5-6 pts) <ul style="list-style-type: none"> Late response 	0 <ul style="list-style-type: none"> No post of thoughtful provoking question.

Pre-course workshop & detailed tutorials were provided to new co-instructors and TA to get familiar with online course pedagogy/facilitation/responsibilities

Pre course training

Roles/Responsibilities

- Facilitation
- Timely Feedback
- Grading by each Monday

- All the students will be divided into the groups based on number of facilitators and number of students
- Each facilitator take responsibilities of his/her group

Sustainable Forest Management in Changing world

	Group 1	Group 2	Group 3	Group 4
Facilitators	Anil	Kaliffi	Marcos	Melike

Forest Governance, community development and public relation

	Group 1	Group 2	Group 3
Facilitators	Anil	Melike	Marcos

Change facilitator each week.

Tutorials

Tutorials how to facilitate in group discussion including posting motivation messages, approaching deadline, words of encouragements for your group.

Go to canvas.ubc.ca and provide your cwl account in login name and password as shown below

ACTIONS TO ADDRESS REPURPOSED OER COURSE DELIVERY

Existing OER course content were linked/embedded in **user friendly and interactive CANVAS LMS**

Dashboard Courses (19)

-
-
-
-
-
-
-
-
-
-

FODE001F-Sep2020

- Home
- Facilitators
- Syllabus
- Content
- Announcements
- Assignments
- Discussions
- People
- Grades
- Student Time Zones
- New Analytics
- Pages
- Files
- Modules
- Outcomes
- Quizzes
- Rubrics
- Item Banks
- Settings

FODE 001F Sustainable Forest Management in a Changing World



INSTRUCTOR CONTACT	COMMUNICATION
<p>Course Author</p> <p>Dr. John Innes (UBC)</p>	<p>Announcements</p> <p>Course General Questions Forum</p>
<p>Program Faculty Lead</p> <p>Dr. Guangyu Wang (UBC)</p>	<p>Types of UBC CWL</p> <p>Create UBC Basic CWL Account</p>
<p>Course Facilitators</p> <p>Dr. Anil Shrestha (UBC)</p> <p>Ferretti-Gallon, Kalifi (UBC)</p> <p>Marcos Riquelme (UBC)</p> <p>Melike Karaca Bulut (UBC)</p>	<p>Canvas Student Guide</p> <p>UBC Academic Misconduct Policy</p> <p>UBC Online Learner Resources</p>
<p>Course Running Manager</p> <p>Joris Jun (UBC)</p>	<p>CURRENT PACIFIC TIME</p> <p>Tue, 29. Mar 2022</p> <p>12:11 p.m.</p>
COURSE MATERIALS AND ACTIVITIES	
<p>Course Syllabus (PDF) - Read Me First!</p>	
<p>Course Content Link</p>	<p>Discussion Index</p>
<p>Pre-course Survey</p>	<p>Assignment List</p>
<p>Post-course Survey</p>	<p>Group List</p>

63 Student View

-
-
-
-
-
-
-
-

To Do

- 5 points • Sep 25, 2020 at 11:59pm
- 20 points • Oct 10, 2020 at 11:59pm
- 20 points • Oct 17, 2020 at 11:59pm
- 20 points • Oct 31, 2020 at 11:59pm
- 20 points • Nov 14, 2020 at 11:59pm

1 more...

Coming Up

Nothing for the next week

To address issues with effective facilitation for large enrollment class & inconsistency in grading, we divided students into groups with weekly rotation of trained co-instructors and TAs

Example of co-instructors involved in a course

Example of groups division in a course

INSTRUCTOR CONTACT

Course Facilitators

Dr. Anil Shrestha (UBC)

Dr. Yao Xiong (FAFU)

Dr. Dong Lingbo (NEFU)

Dr. Tang Derui (NWFU)

Dr. Zeng Yanru (ZAFU)

Dr. Ling Zhang (JXAU)

Charlotte Walter (UBC)

Tolulope Esther Afolabi (UBC)

Program Running Manager

Michelle Zeng (UBC)

020 > Discussions > Module 2 Topic Discussion

🔗 Student View

✔ Published

✎ Edit

⋮

This is a graded discussion: 20 points possible

due Mar 14, 2020

Since this is a group discussion, each group has its own conversation for this topic. Here are the ones you have access to:

- Group 1
- Group 2
- Group 3
- Group 4
- Group 5
- Group 6
- Group 7

30 49

97 106

47 67

82 82

59 59

61 61

46 48

Module 2 Topic Discussion

Feb 22, 2020 at 8:07pm

To motivate learners and their retention, weekly announcements, show-casing best 2-3 assignments, group/ individual feedbacks and course completion certificates were provided

Weekly announcements

AS

Welcome to the Week 2, mandatory learning activities

All Sections

Dear learners, greetings We are excited to start Module 1 (M1) of this course, hope you are too J....

AS

Example of writing six lesson learned from the reading and complete quiz by midnight March 4

All Sections

Dear learners, Some of you already responded to the six lesson learned from the reading while o...

AS

Attention deadline for quiz is today (midnight March 4, Pacific Time); for key lesson learned by tomorrow (midnight March 5)

All Sections

Dear learners, All of you are doing great job, well done. Please note the due date for completing ...

Group/Individual feedback



Wrapping up week 5/feedbacks to improve assignments

Oct 27, 2020 at 6:18pm

Dear Group 1,

I had wonderful time facilitating you group. Most of you did very well, very well done. I have few suggestions that will help to improve your assignment in future.

- **Be as concise and precise while writing questions as well as peer comments.** Read and re-read before you post so that it makes sense as well as free from grammatical/spelling mistakes.
- **Include relevant in-text citations in your questions and comments, and a reference list at the end including all your in text citations** (very important in academia in order to avoid plagiarism as well as evidence based argument).
- **Follow the word limit!** If your questions or answer are beyond the word limit, try to make it shorter.
- **Engaged with your peers as much as possible by commenting more than one peer's questions** (will get higher grade).
- **Be proactive by completing assignment well before the deadline.**
- **Do not forget to respond to both learning activities** (thought provoking question and peer comment, both carries 10 point each).
- **Be critical** yet respectful while commenting to your peers. Only expressing I like it, it's good etc. is **not enough**, we like to see your critical response why you liked your peer's response (i.e. justification for your response) or what they should have included based on reading/lecture video and your experience. Moreover, please do not copy and paste a link and type "here the answer is". First, express the answer by your own words, and then add the source.

Best wishes to you all. You will have new facilitators for this week. Keep well and take care.

Cheers,

Anil Shrestha, Ph.D.

Lecturer, UBC

Video feedback

Course completion certificates



Collaborative and reflective learning activities were offered for more interaction to achieve higher order of learnings

Case sharing: Sothern Africa South America

Discussion question/thought provoking questions

List out three widely planted tree species in your region/country with their photographs and discuss about three key factors influencing choice of these species for a plantation.

The three principal species planted in the Peruvian amazon are:

1. *Cedrelinga cateniformis* "Tornillo"

This species is considered of high commercial importance in the Peruvian Amazon. It presents good growth in diameter and height, and high percentage of survival in the open field and in strips, excelling in the reforestation of abandoned areas. Its wood is very accepted by the market and recommended for structures, carpentry, naval constructions, car bodies, furniture, joinery, struts and toys.



Photo taken by B. Chuquisuta, Perú.

2. *Simarouba amara* "Marupá"

The marupa is a more promising native forest species in the Peruvian Amazon. The marupa trees are part of the dominant layer of the forest where they develop, with a total height that can reach between 25 m and 50 m, 13 a commercial height between 15 m to 25 m and a diameter at breast height of 6 m to 15 cm. Due to its mechanical characteristics and its good impregnability, marupa wood can be used for a wide range of jobs such as moldings, light furniture, coatings, interior joinery, music instruments (piano keys, organ pieces), toys.



Photo taken by R. Osampo, Costa Rica.

3. *Guazuma ulmifolia* Lamk "Bolina negra"

Guazuma ulmifolia is widely adapted, grows in alluvial and clayey soils, and in humid and dry climates. It is a pioneer species that grows better in full sunlight, colonizes recently altered areas and is also found growing on the banks of streams and pastures. It is a common species in the secondary growth of forests. The wood is used for posts, interior carpentry, light construction, boxes, packaging, shoemakers, tool handles, fuel and coal. The green fruits and leaves serve as food for horses and cattle, and the fruits serve to feed the pigs. It is also used as a diuretic and astringent. The seeds are edible, fresh or cooked.



Photo taken by B. Chuquisuta, Perú.

Six key sentence/peer comments

Summary

- 1) Above all, this paper points out the state quo of water and climate to elicit the significance of forests (Ellison et al., 2017).
- 2) Then, the author elucidates the great links between forests and rainfall as well as water transportation (Ellison et al., 2017).
- 3) Next, the author explains why forests can cool the temperature locally and globally (Ellison et al., 2017).
- 4) Subsequently, this paper highlights the role of forests in regulating water distribution from atmosphere to underground, and specifically shows us how this could happen (Ellison et al., 2017).
- 5) Following this, this paper suggests that the improvement of pertinent carbon projects requires corresponding policy support (Duguma et al., 2014; Locatelli et al., 2016).
- 6) In the end, the author concludes that better management for promoting sustainability, adaptation and mitigation efforts can be achieved, based on the interaction among forests, water and energy (Ellison et al., 2017).

References

- Duguma, L. A., Minang, P. A., van Noordwijk, M. (2014). Climate change mitigation and adaptation in the land use sector: from complementarity to synergy. *Environ. Manage.*, 420-432.
- Ellison, D., Morris, C. E., Locatelli, B., Sheil, D., Cohen, J., Murdiyarso, D., ... & Gaveau, D. (2017). Trees, forests and water: Cool insights for a hot world. *Global Environmental Change*, 43, 51-61.
- Locatelli, B., Fedele, G., Fayolle, A., Baglee, A. (2016). Synergies between adaptation and mitigation in climate change finance. *Int. J. Clim. Change Strateg. Manag.*, 112-128.

PEER REVIEW: Peer to Peer Interactions

Greetings from Bangladesh! Your group did a great job. But, as a Bangladeshi citizen, I think some key initiative taken by the Bangladesh Forest Department (BFD) to ensure SFM is missing in your module 1 summary. Co-management approach of the Protected Areas (PA) under Nishorgo project is one of them. Co-management approach is the management of PAs by the forest-dependent people along with the concerned government agencies. The outcome is very positive. People, who once cut trees illegally or hunt wildlife indifferently, are now protecting them. Alternative Income Generation (AIG) activity is another one. Forest-dependent peoples are given alternative profession to sustain their livelihood which reduces their forest dependency significantly.

Thank you Thomas for your valuable reviews. Adding on your point the developing and least developing countries always have other development priorities like: infrastructure and economic growth then forest or environment conservation. Where forestland, wetland and natural resource are been given considerable pressure from human, haphazard deforestation, fragmentation and habitat degradation are some major tribulations. Climate change issue have somehow manage to drag the attention toward natural resource wishful utilization. We can assume in coming days government will be giving high priorities with investing good amount budget for sustainable forest management as well as natural resource management.

Group E-poster

Evaluation of Sustainable Forest Management in Nepal
 Authors: Kamana Parajuli, Lei Yu, Jinnan Yao, Ziqing Gong
 Agriculture and Forestry University, Nepal; Beijing Forestry University, China; Beijing Forestry University, China; Beijing Forestry University, China

Introduction

- Forest of Nepal is divided into 5 phytogeographical regions (1/3 assessment) ranging from (high) Tera to High Himal with 21.25% of total under protected area network. Large portion of forest landscape originates depend on forest, their management forest on that one way. But in recent years Sustainable Forest Management (SFM) is on major focus.
- SFM is management of forest based on the concept of sustainable development. Nepal has been following the criteria and indicators of SFM from International Tropical Timber Organization (ITTO).
- SFM in Nepal has been equipped with all policies and guidelines, norms, standards, monitoring, evaluation and most of all support from local community.
- Nepal's Economy Forest (EF) is one of the eight ecological corridors development strategy in Nepal.
- Being the backbone of forest, forested community based forest management program at present, Nepal needs a long way to recover its forest cover (presently 44.74%) which was once declined 1970s to 1980s.
- There have been visible social, economic and ecological benefits from SFM but criteria and indicators defined at national and international level are difficult to apply at local level due to forest ecological complexity (Chaloi et al., 2017).

Objective

• To study on the progress of Nepal on Criteria (C), Indicator (I), of SFM: Biophysical, Protective Function, Policy legislation, Management Plan, Forest Certification and Sustainable Development and use specific sector, starting on one forest.

Methods

- Forest inventory related to SFM was reviewed.
- Specific data of Nepal were reviewed from the FAO's Global Forest Resources Assessment 2015 (GFRAS).
- Nepal's SFM report to CIO, UNDAF (2014-2020) and other sources (Global Forest Watch).

Results

1. Biophysical

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

2. Policy and legislation

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

3. Protective functions

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

4. Living no one behind

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

5. Management plans

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

6. Forest certification

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

7. Stakeholder

Nepal has been successful progress of forest and biodiversity management. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

Conclusions

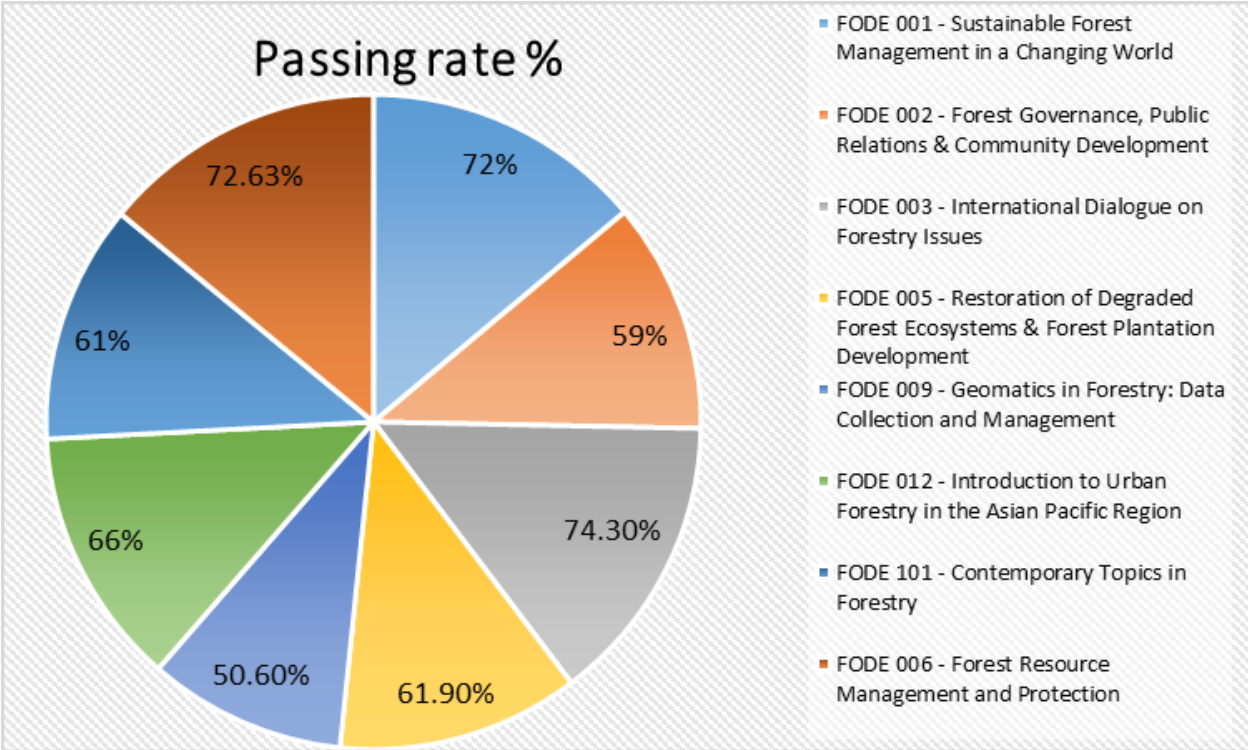
Nepal is gradually making positive progress towards the SFM. The forest cover has been increased from 1970s to 1980s. The forest cover has been increased from 1970s to 1980s.

Reference

Chaloi, S., et al. (2017). Forest cover and biodiversity management in Nepal. *Global Environmental Change*, 43, 51-61.

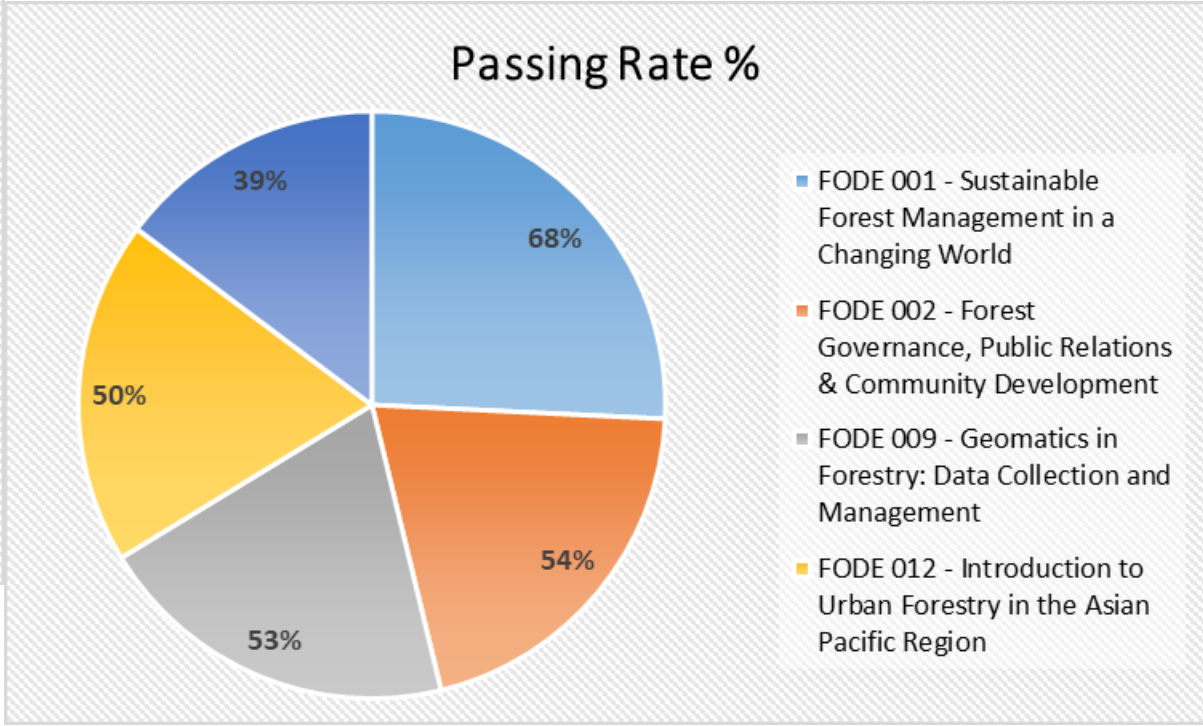
Overall course completion rate was **64% in I offering** and **57% in II offering**

I offering (Feb 2020)



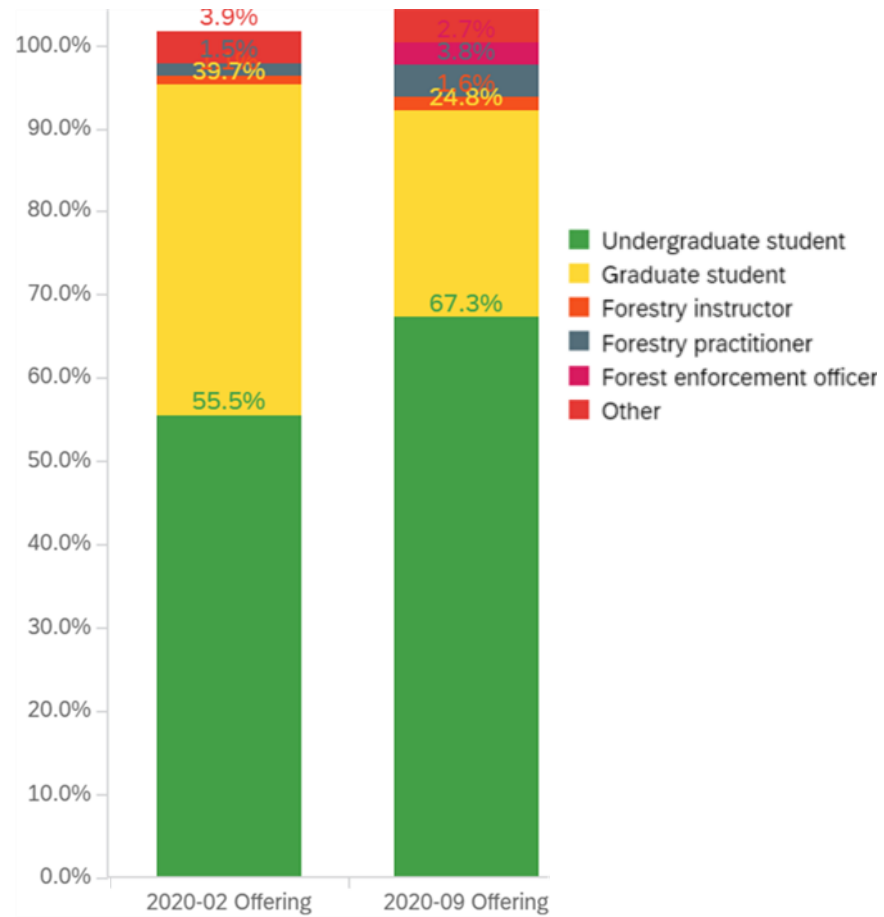
Overall 64%

II offering (Sep 2020)

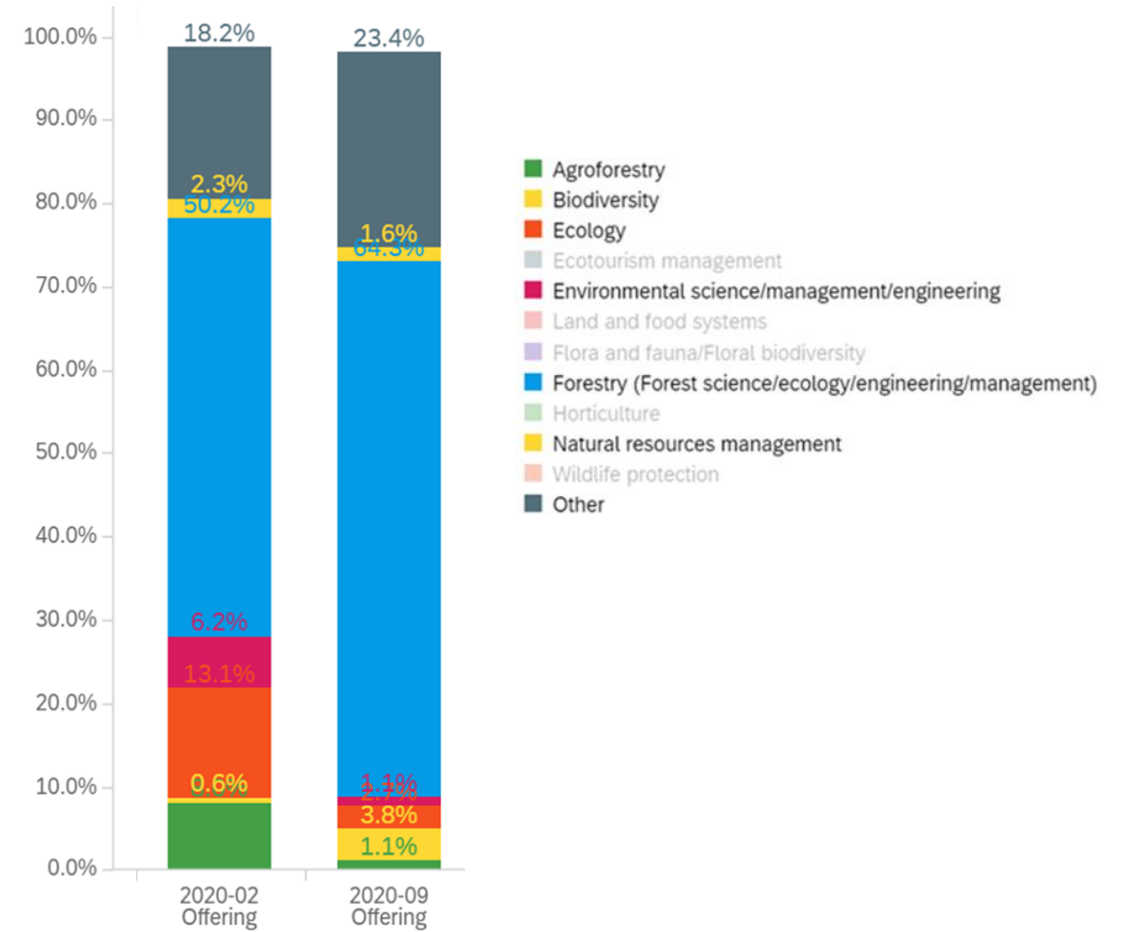


Overall 57%

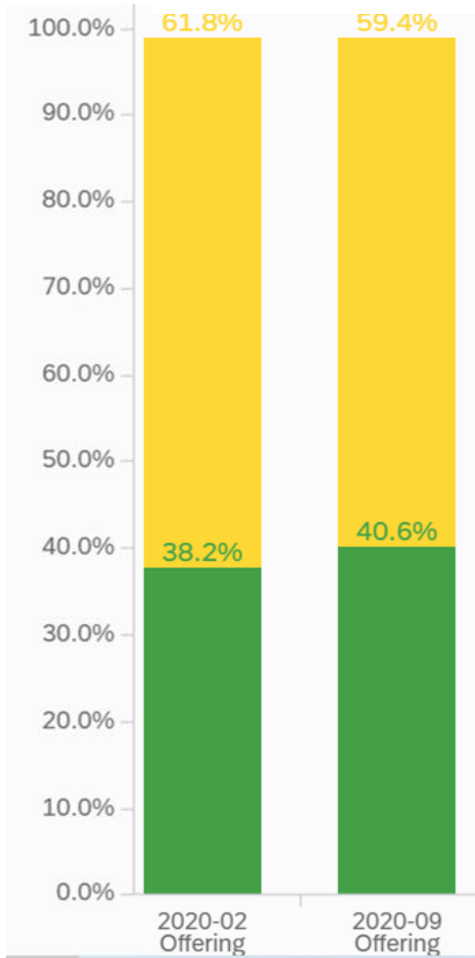
Education



Major

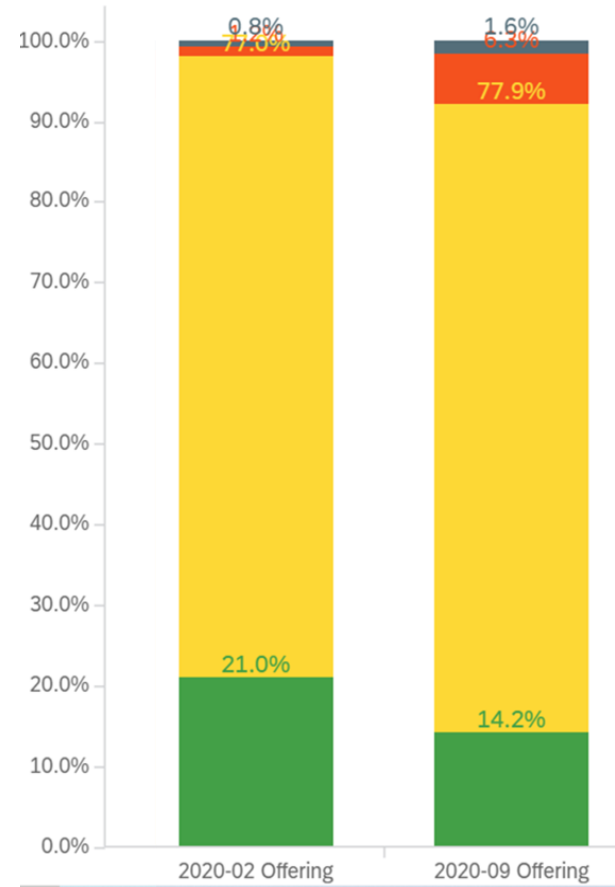


Gender



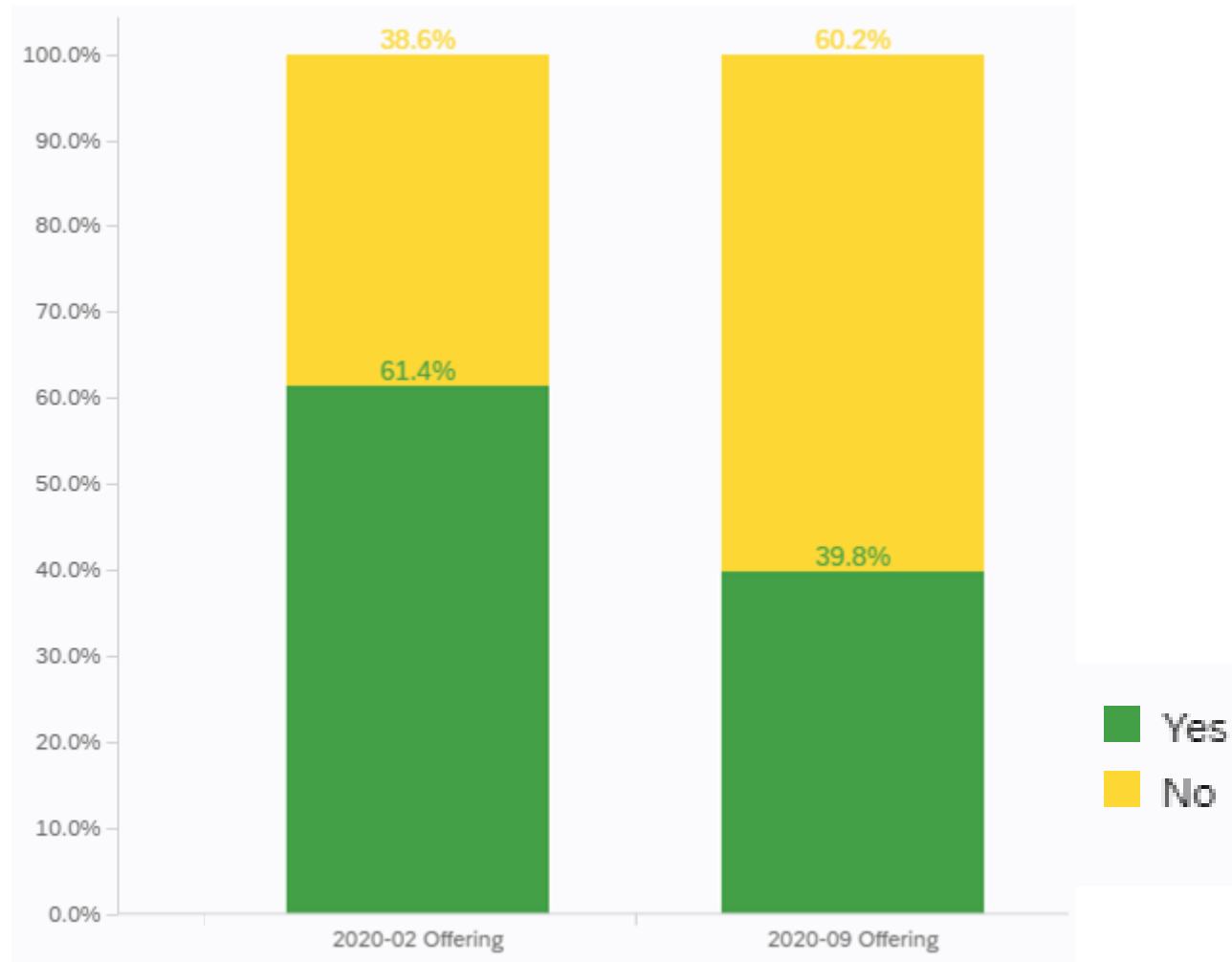
Male
Female

Age group

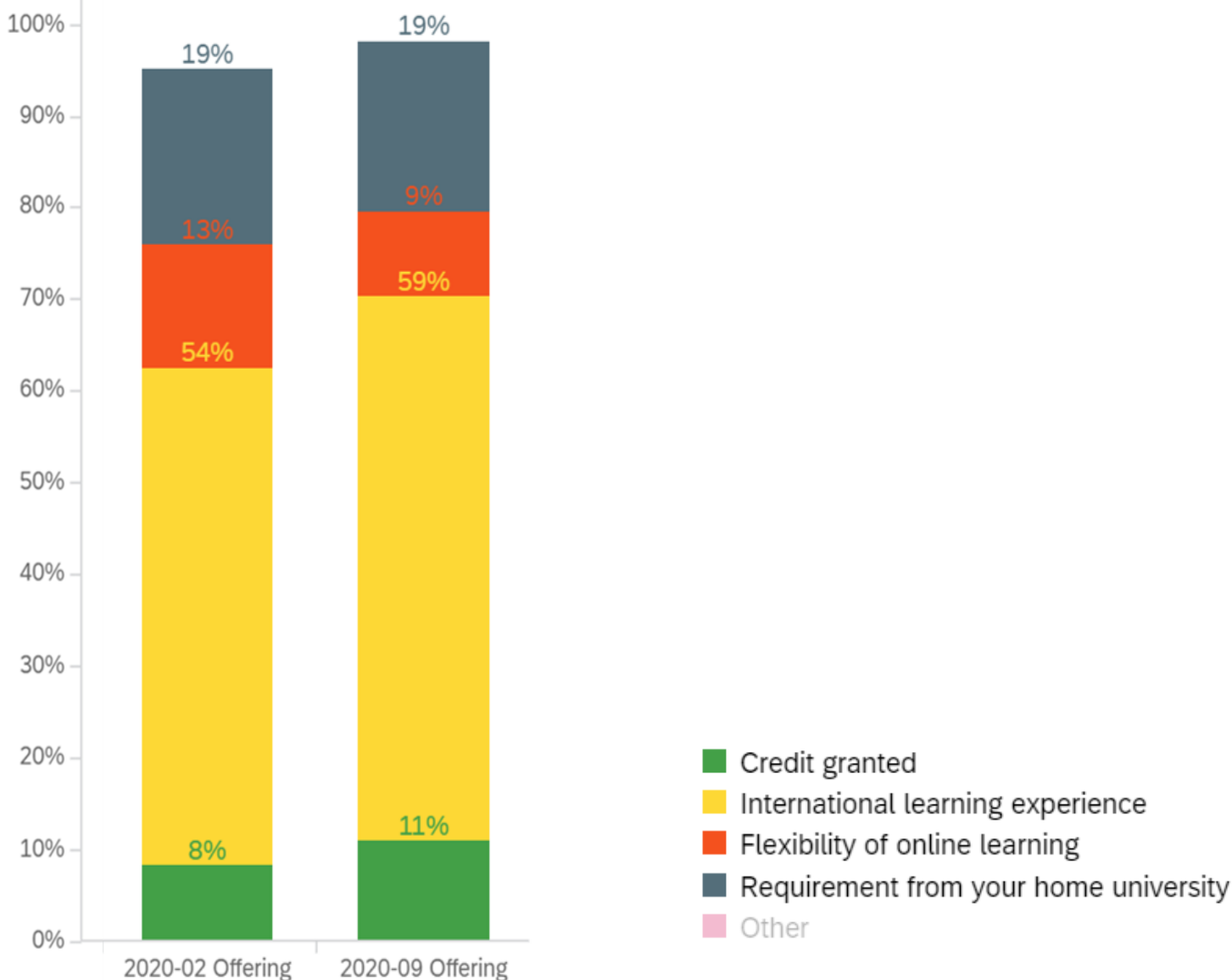


Under 20
20-30
30-40
Over 40

Is this first time participating in a course with English learning environment?

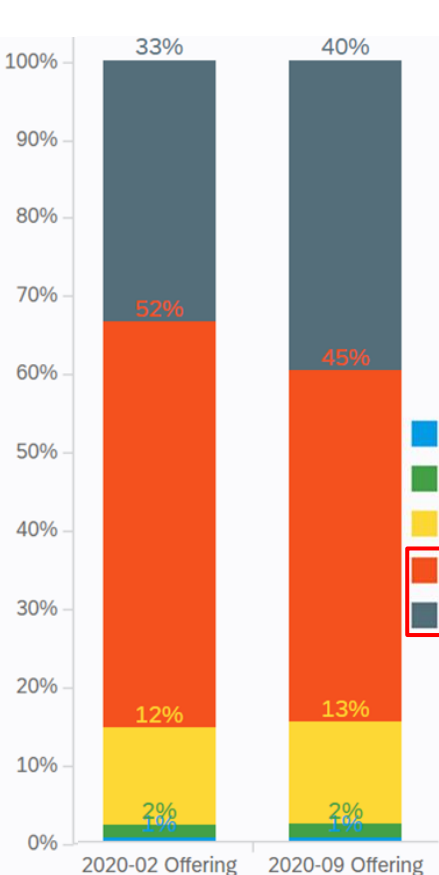


Motivation to participate in the course

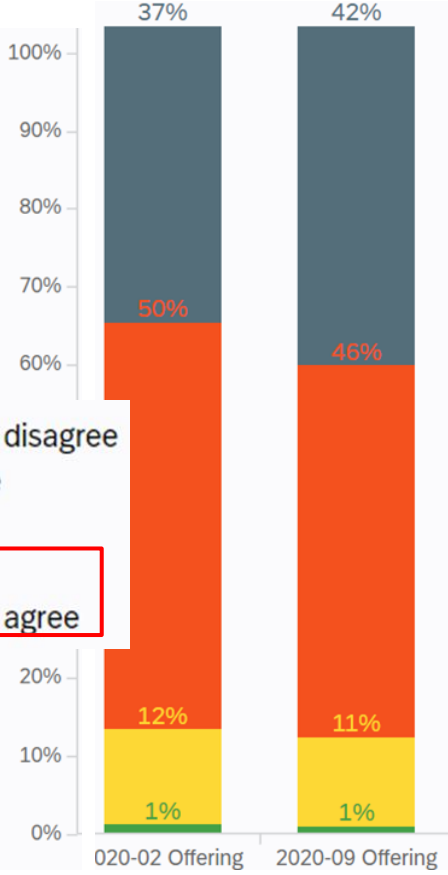


Majority of students reported the course improved their critical analytical thinking, argumentation/discussion and English writing skills, and met the course expectation.

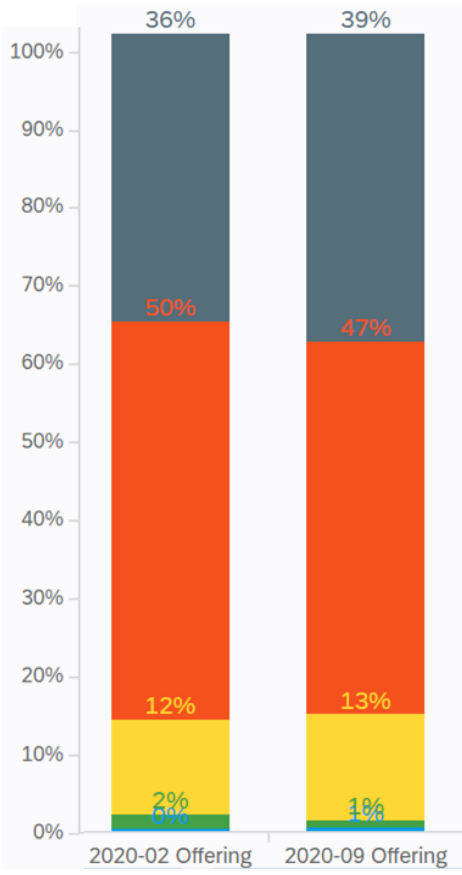
1. Improve critical analytical thinking



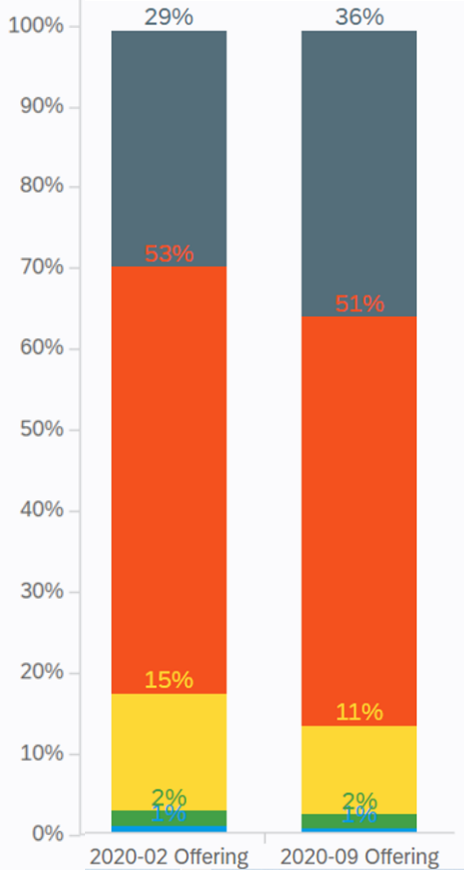
2. Improve argumentation /discussion skills



3. Improve English writing skills and writing summary



4. Meet the course expectation



■ Strongly disagree
■ Disagree
■ Neutral
■ Agree
■ Strongly agree

Team based approach in designing and delivery is recommended with fully online or blended synchronous flipped class room for offering existing OER courses in the new normal

Acknowledgments

- APFNet



- Partner universities & co-instructors/TAs in Asia-Pacific universities
- Learners

THANK YOU!!!

guangyu.wang@ubc.ca
anil.shrestha@ubc.ca

<https://apfecm.forestry.ubc.ca/sfm-online-courses/?login>