

Course Information

Course Title	Course Code Number	Credit Value
Introduction to Urban Forestry in the Asian Pacific Region	FODE 012	3 credits
Prerequisites		
None.		
Corequisites		
None.		

Contacts

Course Instructor(s)	Contact Details	Office Location	Office Hours
TBD	TBD	TBD	TBD
Other Instructional Staff			
TBD			

Course Description

Students will be introduced to the interdisciplinary field of urban forestry and its implementation across the world. They will learn the principles behind urban forest governance, urban forest planning and green-space management, and their role in contributing to human health and wellbeing, more vibrant and attractive cities, improved ecosystem functioning, and building resiliency to an uncertain and changing climate. Students will develop and apply knowledge through interactive instruction, reading and writing assignments to assess and critique contemporary urban forest case studies, self-guided field trips, and conducting an urban forest site analysis and planning project. Exercises will be used throughout the course to provide a deeper understanding of the complexities and challenges faced by urban forest managers and stewards.

Topics covered in this course include the impacts of urbanization on urban nature and urban ecology, history and evolution of urban forestry, urban forest ecosystem services, urban forest management, climate change, society and human well-being, design and planning, urban/rural interface issues, and urban forest governance and policy.

Target Audience

This course is meant for students of forestry and related fields (such as ecology, arboriculture, environmental sciences) who are interested in urban forestry. The course can also be taken by students with backgrounds in e.g. urban planning, geography, and landscape architecture. The course was developed as part of a larger online graduate course within the field of forestry, but can in principle be taken as a stand-alone course. Some prior knowledge of forests and forestry will be beneficial. The course focuses on the Asia Pacific region, but also covers examples from other parts of the world.

Delivery Format

This course introduces concepts and skills through lectures, assignments and tutorials. It is designed to be a fully-online MOOC-type course with an option to issue a graduate-level course completion certificate. Course content such as readings and fundamental concepts will be offered as open educational resources for the Asia-Pacific region. It will follow a format similar to mainstream MOOCs on EdX or Coursera, which typically include presentations, mini lectures and/or videos, automatically graded tests, and moderated online discussions on a weekly basis.

In the case of self-directed learning, students will learn through light moderated online discussions, facilitated by student volunteers or TAs, and through self-review activities found at the end of each learning topic. In the case of certificate learning, students will learn through scheduled instructor-facilitated sessions and discussions and will actively engage with instructors, TAs, and their peers to complete all graded assignments to earn the certificate. Course completion certificates will be issued after students successfully pass the course. Students can access all course materials, lectures, assignments and tutorials online through the UBC Canvas system.

Learning Outcomes

This course introduces concepts and skills through lectures, self-guided field trips, exercises, case studies, and assignments. Students are introduced to key aspects of the theory and practice of urban forestry and to essential practical skills such as arboriculture, basic planning and design, resource planning, and community involvement.

By the end of this course students should be able to:

- Read with intent as a method to efficiently synthesize and summarize information.
- Explain and give examples of the role and benefits of trees and green-space in cities.
- Articulate questions necessary to understand complex urban environments and relationships between urban vegetation, urban trees, and people, at various scales.

- Gather and use information during virtual site visits and field trips for use in projects and assignments.
- Describe key aspects and characteristics of urban forestry in the Asia-Pacific region, and its state-of-art.
- Identify and describe the various players involved in urban forest governance, planning and management.
- Evaluate the merits and disadvantages of a site-specific urban forest management plan, design/build project, tree planting program or ecological restoration initiative.

Learning Materials

Required reading materials:

All the required reading materials will be available to registered students through the Canvas system.

The required course textbook is **Ferrini, F., Konijnendijk van den Bosch, C., Fini, F. (eds.), 2017. Routledge Handbook of Urban Forestry. Routledge, London etc.** *Students can purchase an electronic version of the book at <https://www.routledge.com/Routledge-Handbook-of-Urban-Forestry/Ferrini-Konijnendijk-van-den-Bosch-Fini/p/book/9781138647282>.* Hardcopies are also available, e.g., from amazon.ca.

Most required readings are drawn from the required textbook, with additional required readings as necessary. Required readings that are not from the course textbook will be made available to students on the course Canvas website. Optional supplementary readings are occasionally specified. Students may wish to read these supplementary readings for further depth.

Please see topic readings for a complete list of required and optional reading for each learning topic.

Learning Approach & Activities

Using problem-based learning approaches and systems thinking, students will develop introductory skills in urban ecology, planning and design, governance, and management. These introductory skills will be applied to real-world examples in urban or peri-urban landscape cases, helping them to develop analytical and practical experience for success in their future careers. It is expected that students will conduct collaborative work with peers, and learn to integrate theories and concepts from other disciplines such as Forestry, Plant

Science, Ecology, Landscape Architecture, Planning, Sociology, and Environmental Economics.

Course Topics

The course content will be delivered by two principal instructors supplemented by selected guest lecturers. The course is built around four major modules:

Module I. Urban Forestry History, Concepts, and Elements of the Urban Forest

Topic 1.1: Urbanization and the need for green cities

Topic 1.2: Introduction to urban forestry

Topic 1.3: Urban forest resources and urban ecology

Module II. Ecosystem Services Provided by Urban Forests and Urban Green Infrastructure

Topic 2.1: Supporting and provisioning ecosystem services of urban forests

Topic 2.2: Regulatory ecosystem services of urban forests

Topic 2.3: Cultural ecosystem services of urban forests

Topic 2.4: Green infrastructure and high-tech greening

Module III. Urban Forest Governance

Topic 3.1: Introduction to urban forest governance, and leading discourses

Topic 3.2: Actors and resources in urban forest governance

Topic 3.3: Rules of the game in urban forest governance (including public involvement)

Module IV. Urban Forest Management

Topic 4.1: Urban forest planning

Topic 4.2: Strategic management in urban forestry

Topic 4.3: Urban forest maintenance and arboriculture

Course Schedule

For self-directed learning students, you can complete the topics and modules at your own pace. The speed at which you progress through the course will depend on a number of factors, including how well you can understand English and how much you already know about the topics.

For certificate learning students, you are expected to follow the schedule below to participate in all course activities and complete all course assignments by specified due dates.

Note that all deadlines, dates and times are given in Pacific Standard Time (PST). Contact your instructors to discussion any adjustment needed to accommodate your time zone.

Start Week	Topic	Core Concepts	Learning Activities	Assignment Dues
Week 1 Day 1-7	Course Orientation	<ul style="list-style-type: none"> • Course syllabus • Course schedule • Course requirements • Assignment details 	<ul style="list-style-type: none"> • Review course introduction and overview materials. • Familiarize yourself with course platform and tools. • Post self intro on class discussion board. • Obtain required textbooks. • Ask any questions of general requirements for the course on class discussion board. 	Self Introduction due at 23:59pm on Day 3 of this week (PST).
Module 1: Urban Forestry History, Concepts, and Elements of the Urban Forest				
Week 2: Day 1-7	Topic 1.1: Urbanization and the need for green cities	<ul style="list-style-type: none"> • Globalization and urbanization • Societal context for urban forestry and city greening 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete field photo exercise #1 by 12am on Monday of Week 3. 	Post your discussion questions related to reading by midnight Wednesday PST. Field Photo Exercise #1 and all other activities must be complete by midnight Sunday PST

Week 3: Day 1-7	Topic 1.2: Introduction to urban forestry	<ul style="list-style-type: none"> • History of urban forestry • Concept and characteristics of urban forestry • Urban forestry professions 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete field photo exercise #2 by 12am on Monday of Week 4. 	<p>Post your discussion questions related to reading by by midnight Wednesday PST.</p> <p>Field Photo Exercise #2 and all other activities must be complete by midnight Sunday PST</p>
Week 4: Day 1-7	Topic 1.3: Urban forest resources and urban ecology	<ul style="list-style-type: none"> • Characteristics and components of urban forests • Urban forest inventory and assessment 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete Assignment 1 and upload it to the course website. • Complete online Module 1 test. 	<p>Post your discussion questions related to reading by by midnight Wednesday PST.</p> <p>Online Module 1 Test and Assignment 1 due midnight Friday (PST)</p> <p>All other activities must be complete by midnight Sunday PST</p>
Module 2: Ecosystem Services provided by Urban Forests and Urban Green Infrastructure				
Week 5:	Topic 2.1:	<ul style="list-style-type: none"> • Ecosystem services 	<ul style="list-style-type: none"> • Complete readings and post two discussion 	Post your discussion

Day 1-7	Supporting and provisioning ecosystem services of urban forests	<ul style="list-style-type: none"> • Categories of different ecosystem services • Supporting and provisioning ecosystem services of urban forests 	<p>questions on the class discussion board by day 3.</p> <ul style="list-style-type: none"> • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete field photo exercise #3 by 12am on Monday of Week 6. 	<p>questions related to reading by by midnight Wednesday PST.</p> <p>Field Photo Exercise #3 and all other activities must be complete by midnight Sunday PST</p>
Week 6: Day 1-7	Topic 2.2: Regulatory ecosystem services of urban forests	<ul style="list-style-type: none"> • Regulatory ecosystem services • Air pollution and urban forests • Urban hydrology • Green engineering • Temperature regulation and urban forests 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. 	<p>Post your discussion questions related to reading by by midnight Wednesday PST.</p> <p>All other activities must be complete by midnight Sunday PST</p>
Week 7: Day 1-7	Topic 2.3: Cultural ecosystem services of urban forests	<ul style="list-style-type: none"> • Cultural ecosystem services • Cultural ecosystem services of urban forests and examples 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. 	<p>Post your discussion questions related to reading by by midnight Wednesday PST.</p> <p>All other activities must be complete by midnight Sunday PST</p>
Week	Topic 2.4:	<ul style="list-style-type: none"> • Green 	<ul style="list-style-type: none"> • Complete readings and 	Post your discussion

8: Day 1-7	Green infrastructure and urban green architecture + engineering	infrastructure planning • Green infrastructure network	post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete online Module 2 test.	questions related to reading by by midnight Wednesday PST. Online Module 2 Test due midnight Friday (PST) All other activities must be complete by midnight Sunday PST
Module 3: Urban Forest Governance				
Week 9: Day 1-7	Topic 3.1: Urban Forest Governance	• Governance in an urban forestry context • Key dimensions of urban forest governance • Discourses in urban forest governance	• Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board.	Post your discussion questions related to reading by by midnight Wednesday PST. All other activities must be complete by midnight Sunday PST
Week 10: Day 1-7	Topic 3.2: Actors and resources in urban forest governance	• Urban forest actors • Stakeholder analysis process • 'Resources' in urban forestry governance	• Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student	Post your discussion questions related to reading by by midnight Wednesday PST. All other activities must be complete by

			questions from the class discussion board.	midnight Sunday PST
Week 11: Day 1-7	Topic 3.3: Rules of the game in urban forest governance (including public involvement)	<ul style="list-style-type: none"> • 'Rules of the game' in urban forest governance • Conflict management • Public participation in urban forest governance 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete online Module 3 test. 	<p>Post your discussion questions related to reading by by midnight Wednesday PST.</p> <p>Online Module 3 Test due midnight Friday (PST)</p> <p>All other activities must be complete by midnight Sunday PST</p>
Module 4: Urban Forest Management				
Week 12: Day 1-7	Topic 4.1: Urban forest planning	<ul style="list-style-type: none"> • Strategic planning cycle • Land use planning, its application, and the issues of scale 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. 	<p>Post your discussion questions related to reading by by midnight Wednesday PST.</p> <p>All other activities must be complete by midnight Sunday PST</p>
Week 13: Day 1-7	Topic 4.2: Strategic management	<ul style="list-style-type: none"> • Strategic urban forest management • Strategic 	<ul style="list-style-type: none"> • Complete readings and post two discussion questions on the class discussion board by 	Post your discussion questions related to

	in urban forestry	management planning in urban forestry • Urban forest management plan	day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board.	reading by by midnight Wednesday PST. All other activities must be complete by midnight Sunday PST
Week 14: Day 1-7	Topic 4.3: Urban forest maintenance and arboriculture	• Arboriculture • The management cycle in the city department • Urban forest maintenance practices and examples	• Complete readings and post two discussion questions on the class discussion board by day 3. • Go through the lecture recordings. • Complete online quiz. • Answer two student questions from the class discussion board. • Complete Assignment 2 and upload it to the course website. • Complete online Module 4 test.	Post your discussion questions related to reading by by midnight Wednesday PST. Online Module 4 Test and Assignment 2 due midnight Friday (PST) All other activities must be complete by midnight Sunday PST
Week 15: Day 1-7	Course Wrap-up	• Key course contents • Course requirements and outcomes	• Review key course contents. • Review course requirements and expected outcomes for the final exam. • Conclude the course.	Final Exam (date and time TBD)

Course Certification

This is a course with an option to obtain certification for a 3-credit graduate-level course. Students would need to decide whether to pursue a certification by end of Week 3 of the course. The number of student certification for each offering of the course would be capped at 50. Assessments to student certification include the following components. Each component must be passed to successfully complete the course to get the course certificate. The passing grade is 60%.

Components	Points/Marks	Weight
Participation (self-introduction posting, pre-course survey, post-course survey)	5 each	5%
Readings and discussion questions (13)	4 each	10%
Post-lecture weekly mini quizzes (13)	5 each	10%
Photo assignments (3)	10 each	5%
Online module tests (4)	15 each	30%
Assignments (2)	100 each	20%
Final exam (online)	100	20%

Final letter grades will be given based on the following grading schema:

Letter Grade	Range
A+	90% - 100%
A	85% - 89%
A-	80% - 84%
B+	76% - 79%
B	72% - 75%
B-	68% - 71%
C+	64% - 67%
C	60% - 63%
F (Fail)	0% - 59%

Late Assignment Policy

In general, submitting assignments after the specified completion date is not considered acceptable in this course. However, in the event that a student cannot submit an assignment on the specified completion date, late work will be accepted only if it has been date stamped by the Dean's office. **Late work will NOT be accepted after five days past the due date and 10% will be deducted per day.** This means WEEKDAYS, NOT class meetings. In extreme cases of personal misfortune this policy can be extended ONLY by special arrangement with the instructors.

Participation Expectations

Problem-based learning requires that students participate in all course activities and engage in peer-learning. Students will be evaluated based on their progress in the course (e.g. whether they can complete the lectures and other associated activities on time) and participation on the discussion board (e.g. post questions on the discussion board, participate in the discussion with other classmates).

Netiquette Expectations

Adapted from policies created by the University of Florida's Office and Development & Teaching Excellence: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.

Security

Remember that your password is the only thing protecting you from pranks or more serious harm.

- Don't share your password with anyone
- Change your password if you think someone else might know it
- Always log out when you are finished using the system

General Guidelines

When communicating online, you should always:

- Treat instructors and teaching assistants with respect, including in emails or in any other online communication
- Always use your instructors' and teaching assistants' proper title: Dr. or Prof., or if you in doubt use Mr. or Ms.
- Unless specifically invited, don't refer to them by first name.
- Use clear and concise language
- Remember that all college level communication should have correct spelling and grammar
- Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you"
- Use standard fonts such as Times New Roman and use a size 10 or 12 pt. font

- Avoid using the caps lock feature AS IT CAN BE INTERPRETTED AS YELLING
- Limit and possibly avoid the use of emoticons such as :) ☺
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be interpreted seriously or offensively
- Be careful with personal information (both yours and other's)

Email Netiquette

When you send an email or other online message to your instructor, teaching assistant, or classmates, you should:

- Use a descriptive subject line
- Be brief
- Avoid attachments unless you are sure your recipients can open them
- Sign your message with your name and return e-mail address
- Think before you send the e-mail to more than one person. Does everyone really need to see your message?
- Be sure you really want everyone to receive your response when you click, "reply all"
- Be sure that the message author intended for the information to be passed along before you click the "forward" button

Message Board Netiquette and Guidelines

When posting on the Discussion Board in your online class, you should:

- Make posts that are on topic and within the scope of the course material
- Take your posts seriously and review and edit your posts before sending
- Be as brief as possible while still making a thorough comment
- Always give proper credit when referencing or quoting another source
- Be sure to read all messages in a thread before replying
- Don't repeat someone else's post without adding something of your own to it
- Avoid short, generic replies such as, "I agree." You should include why you agree or add to the previous point
- Always be respectful of others' opinions even when they differ from your own
- When you disagree with someone, you should express your differing opinion in a respectful way
- Do not make personal or insulting remarks
- Be open-minded

Academic Integrity

UBC is an academic community in which commitment to the principles of truth and academic honesty is essential. The Code of Academic Integrity prohibits students from committing the following acts of academic dishonesty:

1. Cheating: intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.
2. Fabrication: intentional and unauthorized falsification or invention of any information or citation in any academic exercise.
3. Facilitating academic dishonesty: intentionally or knowingly helping or attempting to help another violate any provision of the Academic Code.
4. Plagiarism: intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.

ANY PLAGIARISM will result in a mark of zero for the assignment/exam. As a student, you are expected to submit original work and give credit to other people's ideas and writing. Plagiarism includes copying other people's ideas or writing without citing the source. If a quotation is used, it must be identified as a quotation and correctly cited. **Plagiarism is considered a very serious issue and can affect your career.**

Please make sure you know UBC's policies on plagiarism and read tips for avoiding it (see <http://help.library.ubc.ca/planning-your-research/academic-integrity-plagiarism/>).

For additional guidance on what plagiarism is and how to avoid it, please see:

UBC Calendar: <http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,54,111,959>

UBC Learning Commons, Avoiding Plagiarism: <http://learningcommons.ubc.ca/resource-guides/avoiding-plagiarism/>

Other Course Policies

Learning Analytics

Learning analytics includes the collection and analysis of data about learners to improve teaching and learning. This course will be using the following learning technologies: Canvas, etc. Many of these tools capture data about your activity and provide information that can be used to improve the quality of teaching and learning. In this course, I plan to use analytics data to:

- View overall class progress
- Track your progress in order to provide you with personalized feedback
- Review statistics on course content being accessed to support improvements in the course
- Track participation in discussion forums

- Assess your participation in the course

Copyright

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the Course Instructor(s) or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline.