

Landscape Planning, Materials and Construction I

2019-2020 Academic Year

Program	Year	Semester
CFF-Horticulture Technician Diploma	1	1

Course Code: HTLD 1131	Course Equiv. Code(s): N/A
Course Hours: 56	Course GPA Weighting: 4
Prerequisite: N/A	
Corequisite: N/A	
Laptop Course: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Delivery Mode(s): In class <input checked="" type="checkbox"/> Online <input type="checkbox"/> Hybrid <input type="checkbox"/> Correspondence <input type="checkbox"/>	
Authorized by (Dean or Director): Rebecca Milburn	Date: August 2019

Prepared by		
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Course Description:

This course introduces the fundamental characteristics and use of many of the materials such as wood, concrete, concrete products, aggregates, stone, and geo textiles used in basic landscape construction projects as well as plant materials as they relate to softscaping projects. Students will demonstrate skills relating to hard and soft landscaping to produce a final project. Low maintenance species, non-invasive, drought tolerant, eco-friendly and natural garden concepts are covered. The documenting and reporting of costs of each component of the design will be stressed and the basics of project staging for time and cost effectiveness are introduced.

Subject Eligibility for Prior Learning Assessment & Recognition (PLAR):

Prior Learning Assessment and Recognition (PLAR) is a process a student can use to gain college credit(s) for learning and skills acquired through previous life and work experiences. Candidates who successfully meet the course learning outcomes of a specific course may be granted credit based on the successful assessment of their prior learning. The type of assessment method (s) used will be determined by subject matter experts. Grades received for the PLAR challenge will be included in the calculation of a student's grade point average.

The PLAR application process is outlined in <http://www.durhamcollege.ca/plar>. Full-time and part-time students must adhere to all deadline dates. Please email: PLAR@durhamcollege.ca for details.

PLAR Eligibility

Yes No

PLAR Assessment (if eligible):

- Assignment
- Exam
- Portfolio
- Other

Course Learning Outcomes

Course Learning Outcomes contribute to the achievement of Program Learning Outcomes for courses that lead to a credential (e.g. diploma). A complete list of Vocational/Program Learning Outcomes and Essential Employability Skill Outcomes are located in each Program Guide.

Course Specific Learning Outcomes (CLO)

Student receiving a credit for this course will have reliably demonstrated their ability to:

- CLO1 Construct retaining walls and hard surfaces through the use of different materials and techniques.
- CLO2 Determine an appropriate garden style, site, or arrangement for the landscape while being aware of any design specifications required by clients or regulations.
- CLO3 Identify and determine the correct use of various materials commonly used in the creation of landscapes.
- CLO4 Correctly interpret and use various systems of measurement as well as basic scaled landscape plans in plan view and in elevation.
- CLO5 Layout and construct basic hardscape and softscape elements accurately.

Essential Employability Skill Outcomes (ESSO)

This course will contribute to the achievement of the following Essential Employability Skills:

- EES 1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
- EES 2. Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- EES 3. Execute mathematical operations accurately.
- EES 4. Apply a systematic approach to solve problems.
- EES 5. Use a variety of thinking skills to anticipate and solve problems.
- EES 6. Locate, select, organize, and document information using appropriate technology and information systems.
- EES 7. Analyze, evaluate, and apply relevant information from a variety of sources.
- EES 8. Show respect for the diverse opinions, values, belief systems, and contribution of others.
- EES 9. Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.
- EES 10. Manage the use of time and other resources to complete projects.
- EES 11. Take responsibility for one's own actions, decisions, and consequences.

Evaluation Criteria:

The Course Learning Outcomes and Essential Employability Skills Outcomes are evaluated by the following evaluation criterion.

Evaluation Description	Course Learning Outcomes	EESOs	Weighting
Test #1	CLO3, CLO4	EES3	15
Test #2	CLO3, CLO4	EES3	15
Surveying Circuit and Test	CLO4, CLO5	EES2, EES3, EES9	15
Lab Group Work: 10 @ 4% each	CLO1, CLO2, CLO3, CLO4, CLO5	EES3, EES9, EES10, EES11	40
Project Completion	CLO1, CLO4, CLO5	EES3, EES10	15
Total			100%

Notes:

1. IN PROCESS ASSIGNMENTS AND ACTIVITIES occur in class and will only be given once. They cannot be made up or supplemented. Any missed in-process assignments or activities will be assigned a mark of "0".
2. TEST DATES are tentative and will be confirmed by the instructor one week prior to the scheduled test date.
3. MISSED TESTS. There will be no re-writes or make-up tests. It is the student's responsibility to discuss an absence with the professor, prior to the test if possible or within 5 days of the missed test. Marks for a missed test, with substantive reason (e.g. medical or compassionate), will be redistributed evenly over the remaining marks in the course. Missed tests, without a substantive reason, will be assigned a mark of zero
4. AN INTERIM MARK will be determined to identify student's academic progress. This mark will be based on the results of the evaluation criteria up to the mid-term date.

Required Text(s) and Supplies:

Recommended Resources (purchase is optional):

N/A

Policies and Expectations for the Learning Environment:

General Policies and Expectations:

General College policies related to	General policies related to
+ Acceptable Use of Information Technology	+ attendance
+ Academic Policies	+ absence related to tests or assignment due dates
+ Academic Honesty	+ excused absences
+ Student Code of Conduct	+ writing tests and assignments
+ Students' Rights and Responsibilities can be found on-line at http://www.durhamcollege.ca/academicpolicies	+ classroom management can be found in the Program Guide (full time programs only) in MyCampus http://www.durhamcollege.ca/mycampus/

Course Specific Policies and Expectations:

ALL PERSONAL PROTECTIVE EQUIPMENT (PPE) is required to attend Lab activities. If a student is missing PPE they will not be able to participate or attend lab. Missed labs will result in missed evaluations for that lab period.

STUDENT CONDUCT: Students are expected to conduct themselves in a professional manner while on campus and off campus. Students are expected to comply with the program's professional conduct, appearance, and safety expectations found in the Program Guide and to understand and comply with off-site policies and procedures. It is everyone's responsibility to have respect for their peers.

PEER INTERACTION AND FEEDBACK: Students are expected to participate with their peers in active learning activities and demonstrations. These demonstrations provide students with opportunities for written/verbal feedback from their peers, instructor, and others on the application of learned course material.

General Course Outline Notes:

1. Students should use the course outline as a learning tool to guide their achievement of the learning outcomes for this course. Specific questions should be directed to their individual professor.
2. The college considers the electronic communication methods (i.e. DC Mail or DC Connect) as the primary channel of communication. Students should check the sources regularly for current course information.
3. Professors are responsible for following this outline and facilitating the learning as detailed in this outline.
4. Course outlines should be retained for future needs (i.e. university credits, transfer of credits etc.)
5. A full description of the Academic Appeals Process can be found at <http://durhamcollege.ca/gradeappeal>.
6. Faculty are committed to ensuring accessible learning for all students. Students who would like assistance with academic access and accommodations in accordance with the Ontario Human Rights Code should register with the Access and Support Centre (ASC). ASC is located in room SW116, Oshawa Campus and in room 180 at the Whitby Campus. Contact ASC at 905-721-3123 for more information.
7. Durham College is committed to the fundamental values of preserving academic integrity. Durham College and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments could be subject to submission either by themselves or by the faculty member for a review of textual similarity to Turnitin.com. Further information about Turnitin can be found on the Turnitin.com Web site.

Learning Plan

The Learning Plan is a planning guideline. Actual delivery of content may vary with circumstances.

Students will be notified in writing of changes that involve the addition or deletion of learning outcomes or evaluations, prior to changes being implemented, as specified in the Course Outline Policy and Procedure at Durham College.

Wk.	Hours:	2	Delivery:	In Class	
1	Course Learning Outcomes				
	CLO3				
	Essential Employability Skills				
	Taught:		EES2, EES11	Practiced: EES2, EES11	
	Intended Learning Objectives				
	Introduction to Course Navigating the course online and setting up avenues for communication. Expectations for Class Learning Environment.				
Intended Learning Activities					
Introduction exercise, discussion and development of the learning environment. Students will be introduced to the tools that are used to measure distances as well as systems of measurement (metric and Imperial).					
Resources and References					
N/A					
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
1	Course Learning Outcomes				
	CLO4				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES9, EES11	Practiced: EES2, EES3, EES9, EES11	
	Intended Learning Objectives				
	Students will be introduced to systems of measurement and how to correctly use measuring tools as well as how to record measurements in a logical manner to ultimately draft a space to scale.				
Intended Learning Activities					
Students will work in groups to measure a space and draft it using a simple scale.					
Resources and References					
N/A					
Evaluation					

Wk.	Hours:	2	Delivery:	In Class	
2	Course Learning Outcomes CLO4, CLO5				
	Essential Employability Skills				
	Taught:		EES2, EES3	Practiced: EES2, EES3	
	Intended Learning Objectives Plan reading and types of landscape plans will be discussed. Students will expand upon the topic of plans and scale measurement. The 3-4-5 method of determining square will be introduced.				
	Intended Learning Activities Students will examine different types of landscape and construction plans and identify the differences and uses. They will use scale to draft and to derive real measurements from plans using simple tools.				
	Resources and References N/A				
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
2	Course Learning Outcomes CLO4, CLO5				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES9, EES11	Practiced: EES2, EES3, EES9, EES11	
	Intended Learning Objectives Students will discern how to use a plan with a simple scale to accurately lay out a small space with specific elements.				
	Intended Learning Activities Scaled plans detailing a small space will be provided to groups of students to give the pertinent information for them to layout a small space with specific elements.				
	Resources and References N/A				
Evaluation					

Wk.	Hours:	2	Delivery:	In Class	
3	Course Learning Outcomes				
	CLO3				
	Essential Employability Skills				
	Taught:		EES2	Practiced: EES2	
	Intended Learning Objectives				
	<p>Students learn the importance of locates and laws concerning job sites. recognizing hazards, job site staging, and preservation of selected elements. Students will identify the common aggregates used in landscape construction as well as the units of measurement that are associated with their purchase and transport.</p> <p>Students will be introduced to geotextiles and aggregates and the use of sustainable products and processes and will understand the differences and application for each. Students will assess the process of excavation and installation of base material.</p>				
Intended Learning Activities					
<p>Students will examine construction details typical to retaining wall construction in the landscape industry. Online resources for construction locates will be identified. Students will calculate volumes of aggregates and estimate material requirements for example job sites.</p>					
Resources and References					
N/A					
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
3	Course Learning Outcomes				
	CLO1, CLO4, CLO5				
	Essential Employability Skills				
	Taught:		EES9, EES10, EES11	Practiced: EES9, EES10, EES11	
	Intended Learning Objectives				
	<p>Excavation and Base preparation will be introduced. Students will examine the qualities of a completed base and various methods of preparing the bedding course, focusing on the screed rail method.</p>				
Intended Learning Activities					
<p>Excavation and/or base preparation will begin on the identified project. Subgrade and base material will be graded and compacted. Students will apply their skills in setting the grade and installing the bedding course to the project.</p>					
Resources and References					
N/A					
Evaluation					
Lab Group Work			Weighting	4	

Wk.	Hours:	2	Delivery:	In Class
4	Course Learning Outcomes CLO1, CLO2, CLO4			
	Essential Employability Skills			
	Taught: EES2, EES11		Practiced: EES2, EES11	
	Intended Learning Objectives Students compare different precast retaining wall blocks and coping to help identify the differences and limitations of different systems. Students will identify the components of a retaining wall. They will discuss the various circumstances in which a retaining wall may be required as well as bylaws that govern them.			
	Intended Learning Activities Students will study the walls most commonly used in industry focusing on gravity walls constructed of precast concrete units. Students will examine the differences between using a precast unit for a retaining wall and discuss how it differs when the same unit is used as a step.			
	Resources and References N/A			
Evaluation				
Wk.	Hours:	2	Delivery:	Lab
4	Course Learning Outcomes CLO1, CLO3, CLO5			
	Essential Employability Skills			
	Taught: EES2, EES9, EES10, EES11		Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students will demonstrate the starting point of subsequent rows of retaining walls and the placement of cut stones and the installation of successive steps using precast wall units.			
	Intended Learning Activities Students will use manipulatives to set grade using appropriate tools. The process of screeding will be introduced. Students will observe the installation of the base row of the retaining wall and identify the steps to proceeding to subsequent rows.			
	Resources and References N/A			
Evaluation Lab Group Work			Weighting 4	

Wk.	Hours:	2	Delivery:	In Class	
5	Course Learning Outcomes CLO2, CLO3				
	Essential Employability Skills				
	Taught:		EES2, EES11	Practiced: EES2, EES11	
	Intended Learning Objectives Students will compare different retaining walls and identify wall failure as well as systems and designs to prevent failure.				
	Intended Learning Activities Students will examine case scenarios and describe how retaining walls failed as well as identifying how that failure could have been avoided through proper construction techniques.				
	Resources and References N/A				
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
5	Course Learning Outcomes CLO1, CLO5				
	Essential Employability Skills				
	Taught:		EES2, EES9, EES10, EES11	Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students will identify the importance of the coping installation and how to correctly place coping units.				
	Intended Learning Activities Students will continue to build retaining walls and/or steps, paying attention to subsequent row starting points and placement of cut blocks. Backdrains will be installed where appropriate.				
	Resources and References N/A				
Evaluation Lab Group Work			Weighting 4		

Wk.	Hours:	2	Delivery:	In Class	
6	Course Learning Outcomes CLO2, CLO3, CLO4				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES11	Practiced: EES2, EES3, EES11	
	Intended Learning Objectives Test #1				
	Intended Learning Activities Evaluate the learning of materials to this point in the course.				
	Resources and References N/A				
Evaluation Test #1		Weighting 15			
Wk.	Hours:	2	Delivery:	Lab	
6	Course Learning Outcomes CLO1, CLO5				
	Essential Employability Skills				
	Taught:		EES2, EES9, EES10, EES11	Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students will apply knowledge to the finished construction to the retaining wall and all elements.				
	Intended Learning Activities Students will finish retaining walls and/or steps and complete any necessary backdrains.				
	Resources and References N/A				
Evaluation Lab Group Work		Weighting 4			

Wk.	Hours:	2	Delivery:	In Class
7	Course Learning Outcomes CLO2, CLO3			
	Essential Employability Skills			
	Taught: EES2, EES11		Practiced: EES2, EES11	
	Intended Learning Objectives Students will describe the steps involved in creating a hard surface with modular units and recognize the situations that allow for their failure and how to prevent failure. Students will assess the process of excavation and oversee its completion.			
	Intended Learning Activities Students will use catalogues and materials from various precast paver suppliers to compare the resources available and the correct installation.			
	Resources and References N/A			
Evaluation				
Wk.	Hours:	2	Delivery:	Lab
7	Course Learning Outcomes CLO1, CLO5			
	Essential Employability Skills			
	Taught: EES2, EES9, EES10, EES11		Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students will be introduced to setting the grade of the bedding course in preparation of a precast paver installation.			
	Intended Learning Activities Students will begin screeding the bedding course for the installation of the precast paver units in the project.			
	Resources and References N/A			
Evaluation Lab Group Work			Weighting 4	

Wk.	Hours: 2	Delivery: In Class
8	Course Learning Outcomes CLO2, CLO3	
	Essential Employability Skills	
	Taught: EES2, EES11	Practiced: EES2, EES11
	Intended Learning Objectives Students will distinguish between different patterns and methods for laying those patterns efficiently.	
	Intended Learning Activities Students will examine different pavers and their patterns and manipulate actual pavers to produce patterns in a defined space.	
	Resources and References N/A	
Evaluation		
Wk.	Hours: 2	Delivery: Lab
8	Course Learning Outcomes CLO1, CLO5	
	Essential Employability Skills	
	Taught: EES2, EES9, EES10, EES11	Practiced: EES2, EES9, EES10, EES11
	Intended Learning Objectives Students will examine starting points for modular paver installations as well as identify different paver patterns and their installation. Student will identify the best pattern with the chosen paver units for the project they are working on. They will examine how pattern choice will affect the cuts required to finish the project.	
	Intended Learning Activities Students will continue their construction of the Project defined for them in their assigned places.	
	Resources and References N/A	
Evaluation Lab Group Work		Weighting 4

Wk.	Hours:	2	Delivery:	In Class	
9	Course Learning Outcomes CLO2, CLO3				
	Essential Employability Skills				
	Taught:		EES2, EES11	Practiced: EES2, EES11	
	Intended Learning Objectives They will identify best methods for the cutting of pavers in different circumstances and the tools required to achieve those methods.				
	Intended Learning Activities Students will examine various methods form the marking and cutting of pavers in patterns using tools common to the landscape industry.				
	Resources and References N/A				
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
9	Course Learning Outcomes CLO1, CLO5				
	Essential Employability Skills				
	Taught:		EES2, EES9, EES10, EES11	Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students will apply their skills in the safe use of cutting tools to mark, label and cut pavers to create a finished hard surface that meets industry standards.				
	Intended Learning Activities Students will apply their skills to complete the cuts for the interlocking pavers and finish the patio by sweeping.				
	Resources and References N/A				
Evaluation Lab Group Work			Weighting 4		

Wk.	Hours:	2	Delivery:	In Class	
10	Course Learning Outcomes CLO2, CLO3				
	Essential Employability Skills				
	Taught:		EES2, EES11	Practiced: EES2, EES11	
	Intended Learning Objectives Students will identify the industry approved methods and materials used in the completion of precast pavers and hardscape surfaces.				
	Intended Learning Activities Students will discuss the approved finishing techniques from various hardscape suppliers and conclude the correct methods consistent with industry.				
	Resources and References N/A				
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
10	Course Learning Outcomes CLO1, CLO5				
	Essential Employability Skills				
	Taught:		EES2, EES9, EES10, EES11	Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students apply skills to complete the final stages of a hardscape construction project.				
	Intended Learning Activities Students will complete their projects for the final assessment of all elements.				
	Resources and References N/A				
Evaluation Lab Group Work			Weighting 4		

Wk.	Hours:	2	Delivery:	In Class
11	Course Learning Outcomes CLO3, CLO4			
	Essential Employability Skills			
	Taught: EES2, EES3, EES11		Practiced: EES2, EES3, EES11	
	Intended Learning Objectives Test #2			
	Intended Learning Activities Evaluation of Pavers and Hard Surfaces			
	Resources and References N/A			
Evaluation Test #2			Weighting 15	
Wk.	Hours:	2	Delivery:	Lab
11	Course Learning Outcomes CLO1, CLO2, CLO5			
	Essential Employability Skills			
	Taught: EES2, EES9, EES10, EES11		Practiced: EES2, EES9, EES10, EES11	
	Intended Learning Objectives Students will analyse feedback and apply skills to submit their project for final evaluation.			
	Intended Learning Activities Students will use feedback from the previous lab to consider changes to elements of their hardscape construction project for final evaluation.			
	Resources and References N/A			
Evaluation Lab Group Work Final Project Completion			Weighting 19	

Wk.	Hours:	2	Delivery:	In Class	
12	Course Learning Outcomes				
	CLO2, CLO4				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES11	Practiced: EES2, EES3, EES11	
	Intended Learning Objectives				
	Students will be introduced to the basics of surveying and grading. They will learn the names and uses of the tools associated with surveying, as well as the terms and vocabulary.				
Intended Learning Activities					
Students will use printed examples of simple surveying circuits and work to complete the calculations to find the correct existing elevations.					
Resources and References					
N/A					
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
12	Course Learning Outcomes				
	CLO2, CLO4				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES9, EES11	Practiced: EES2, EES3, EES9, EES11	
	Intended Learning Objectives				
	Students will be introduced to basic in surveying. They will identify appropriate sites to set up instruments and points to be measured.				
Intended Learning Activities					
Students will set up surveying equipment and take measurements of grades in a prescribed area to complete a circuit.					
Resources and References					
N/A					
Evaluation					

Wk.	Hours:	2	Delivery:	In Class	
13	Course Learning Outcomes CLO2, CLO4				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES11	Practiced: EES2, EES3, EES11	
	Intended Learning Objectives Students will be introduced to surveying circuits with turning points and how to recalculate the Height of Instrument.				
	Intended Learning Activities Students will use printed examples of surveying circuits with turning points and work to complete the calculations to find the correct existing elevations.				
	Resources and References N/A				
Evaluation					
Wk.	Hours:	2	Delivery:	Lab	
13	Course Learning Outcomes CLO2, CLO4				
	Essential Employability Skills				
	Taught:		EES2, EES3, EES9, EES11	Practiced: EES2, EES3, EES9, EES11	
	Intended Learning Objectives Students will develop group work skills as they work together to set up surveying equipment and complete a simple circuit.				
	Intended Learning Activities Students will participate in groups to set up and complete a simple surveying circuit.				
	Resources and References N/A				
Evaluation Lab Group Work			Weighting 4		

Wk.	Hours:	2	Delivery:	In Class
14	Course Learning Outcomes CLO2, CLO4			
	Essential Employability Skills			
	Taught:	EES2, EES3, EES11	Practiced:	EES2, EES3, EES11
	Intended Learning Objectives Surveying Test: Written Portion			
	Intended Learning Activities Evaluation of surveying terms, associated calculations and interpreting grades.			
	Resources and References N/A			
Evaluation Surveying Test			Weighting 5	
Wk.	Hours:	2	Delivery:	Lab
14	Course Learning Outcomes CLO2, CLO4			
	Essential Employability Skills			
	Taught:	EES2, EES3, EES9, EES10, EES11	Practiced:	EES2, EES3, EES9, EES10, EES11
	Intended Learning Objectives Students will learn to complete a surveying circuit that contains a turning point and calculate the existing elevations for the space.			
	Intended Learning Activities Students will participate in groups to complete a surveying circuit including a turning point			
	Resources and References N/A			
Evaluation Surveying Circuit			Weighting 10	