Lane Community College

Section 1. Proposed Course Outline (A general statement of course content that informs class syllabus construction. Once approved, all sections of a given course must include this content, no matter which instructor teaches the course, or the mode of delivery. Divisions must include this new course outline in the Divisional Course Outline binder as required by COPPs.)

Course Number: **WST 205** Full Course Title for print catalog: **Soils Field Methods**

Abbreviated Course Title for Banner: **Soils Field Methods** (30 character limit)

Prerequisites: None

Co-requisites: None

Grade Option: ☒ Graded (with P/NP option) ☐ Pass/No Pass only

Number/Type Credits	Term Minimum Contact	Term Maximum Contact	11-Week Term Contact
0 Lecture	0 hours (lecture credits x 10)	0 hours (lecture credits x 12)	0 hours (lecture credits x 11)
2 Lec/Lab	40 hours (lec-lab credits x 20)	48 hours (lec-lab credits x 24)	44 hours (lec-lab credits x 22)
0 Lab	0 hours (lab credits x 30)	0 hours (lab credits x 36)	0 hours (lab credits x 33)
2 **Total credits (sum)**	40 **Total hours (sum)**	48 **Total hours (sum)**	44 **Total hours (sum)**

Course Description (300 character limit):

Basic principles of experimental design, site and instrument selection for field research to study soil and slope physical and biological characteristics. Basic tools and data acquisition techniques are used in a variety of field settings combined with self-paced online learning.

Course Outcomes and Proficiencies

What will the student ***know*** or ***be able to do*** at the end of the course?

What ***attitudes*** related to the subject will the student hold?

Assessments Planned

What evidence will demonstrate that students have achieved course outcomes? (assessment tools may include departmental tests, written products, portfolios, juried performances, quizzes and exams, or alternative assessments such as qualitative studies, capstone projects, external reviewers, etc.)

Upon successful completion of this course, the student will:	How each outcome will be assessed:
use standard program-accepted soil protocols, which define the depth of knowledge required for successful completion of the outcomes listed below.	Demonstrated proficiency in Independent completion of all components of the protocols
explain the purposes and goals of the soil protocols and when and where to apply them appropriately	Homework, written quiz, exam, project write-up
describe the classification of soils, using appropriate terminology and be able recognize different soils in the field.	Homework, written quiz, exam, field and lab practical evaluations and/or tests and/or field write-up or notebook evaluation
document and classify soil organisms and describe the soil food web and soil ecology.	Homework, written quiz, exam, field and lab practical evaluations and/or tests and/or field write-up or notebook evaluation

recognize the basin geometry and geomorphic context of a soil location, using maps and other appropriate tools.	Evaluation of maps and field write-up or notebooks
measure and describe key aspects of soil - water interactions such as: infiltration, soil water storage, runoff, and below-ground water movement.	Homework, written quiz, exam, field and lab practical evaluations and/or tests and/or field write-up or notebook evaluation
…….	……..
describe, measure, and organize soil characteristics according to the protocol.	Field and lab practical evaluations and/or tests and/or field write-up or notebook evaluation
…….	……..
perform at least two soils assessments following standard protocols including: a rapid assessment, and a soils typing	Field and lab practical evaluations and/or tests and/or field write-up or notebook evaluation

Course Content by Major Topics

What topics will be presented? What are the main activities of the course? What are the central themes? (See sample at http://www.lanecc.edu/cops/format3.htm.)

Topics:

Soil characterization and classification
- Soil formation and development
- Soil structure and profiles
- Introduction to soil measurement and measurement tools
- Soil characteristics
- Soil classification

Soils and ecosystems – field studies in one or more types of soil regimes will be conducted:
- O-horizon, soil organisms, food webs, and carbon sequestration
- Soil and ecosystem links
- Upland soil regimes
  - Forest soils
  - Savanna and woodland soils
  - Prairie and meadow soils
- Other soil regimes
  - Riparian soils
  - Wetland soils
  - Agricultural soils

Soil degradation mechanisms
- Natural processes that degrade soil
  - Mass wasting
  - Soil erosion
- Human practices that impact soil

Soil health and quality

Soil management and protection practices

Section 2. Proposal Information

Course Developer:
Paul Ruscher, Stephen Clarke

Date: 10/17/2012

Catalog year to take effect:
2012-13

Type of Proposal

- ☒ New course
- ☐ Currently 199 or 299
- ☐ Experimental Course
  - ☐ 199 Special Studies
  - ☐ 299 Trends
- ☐ Revised course (If increasing credits, use credit change form)
- ☐ Reactivated course with no change
- ☐ Reactivated course with changes

Type of Course:

- ☐ Lower Division Collegiate (transfer)
- ☒ Professional/Technical (required or elective)
- ☐ Developmental, numbered below 100

Rationale:

How does this proposal further the goals of the program or department?

This is a required first-year course of the new Watershed Science Technician program and provides the formal introduction to the importance of understanding soil processes in watersheds.

What assessment evidence supports this proposal?

Soils are an integral part of watershed processes and this course has been vetted as part of the new required WST curriculum by our internal science faculty and our external Watershed Science Advisory Committee. The course teaches learning outcomes identified by industry experts.

How do you know there is a demand for this course?

This is required by the WST program. The course will serve CT students in the program and may also serve others seeking field skills in this area.

Section 3. Curriculum Equity (http://www.lanecc.edu/cops/curric.htm)

To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane's Curriculum Equity policy in the following way(s):

Using gendered examples equally when illustrating theories and concepts.
Use research sources, graphics, videos and other media that portray women and men from diverse cultural and ethnic backgrounds in roles related to the science and field studies.
Use gender-neutral terms such as people, human, you, they wherever possible and alternate genders where this is not possible.

Section 4. For revised courses only: PREVIOUS Catalog/Course Information:

Course Number: _____ Course Title in Banner: _____ (30 characters maximum)

Full Course Title in print catalog:

Prerequisites:

Co-requisites:

Grade Option: ☐ Graded (with P/NP option) ☐ Pass/No Pass only

Number/Type Credits	Term Minimum Contact	Term Maximum Contact	11-Week Term Contact
__ Lecture	__ hours (lecture credits x 10)	__ hours (lecture credits x 12)	__ hours (lecture credits x 11)
__ Lec/Lab	__ hours (lec-lab credits x 20)	__ hours (lec-lab credits x 24)	__ hours (lec-lab credits x 22)

__ Lab	__ hours (lab credits x 30)	__ hours (lab credits x 36)	__ hours (lab credits x 33)
__ **Total credits (sum)**	___ **Total hours (sum)**	___ **Total hours (sum)**	___ **Total hours (sum)**

Course Description:

What will change? ☐Course Number ☐Title ☐Course Description ☐Credit hours ☐Contact hours

Section 5. Support Courses **(New Professional/Technical course proposals must complete.)**

Professional/Technical courses are tracked within programs for purposes of Carl Perkins funding and budgetary planning. Indicate all degree or certificate programs for which this course will be required.

Program	Division
Watershed Science Technician	Science

Section 6. Overlap Courses **(New course proposals must complete.)**

While overlap of course materials is not necessarily a flaw, duplication of course materials may lead to inefficient use of college resources. If there is overlap, the faculty of overlapping courses must agree on the extent of overlap and attach a rationale explaining its necessity.

Indicate all departments/courses that this course may overlap. Division Dean of existing course enters one of two options at right. Note: N/A is not an option.

Options:
1. Approved: overlap is acceptable. Rationale attached.
2. Disapproved: reasons attached.

Division	Course Number / Title	% Overlap	Option	Division Dean of existing course (Signature required for all options)	Date
Science	ENVS 181	5%	1		
Science	ENVS 183	5%	1		
Science	G 102/202	5%	1		
Science	GS 102	10%	1		
Social Science / Geography	Geog 141	5%	1		

Section 7. Qualification to fulfill degree requirements (complete all relevant forms, available at http://www.lanecc.edu/currsched/drrcforms.htm, and send to Mary Brau for the Degree Requirements Review Committee):

☐ Form(s) applying for the following degree requirement status have been attached. (Only check this box when forms have been completed and attached.)

AAOT, ASOT-Bus, OTM:

☐ Arts & Letters

☐ Social Sciences

☐ Science / Mathematics / Computer Science

AAOT:

☐ Ethnic/Gender/Cultural Diversity

AAS, 1-year and 2-year certificates:

☐ Human Relations

Section 8. Library Impact Statement

Under accreditation standards, Library consultation is essential for new programs, new courses and for substantively revised courses when the revisions entail any change in library use.

What assignments will require the use of library and information resources?
None

Each academic area has a Liaison Librarian (http://www.lanecc.edu/library/services/liaison.htm). Contact the designated librarian to discuss the library needs of your course. Please allow the librarian at least one week to assess library resources.

To be completed by Liaison Librarian:
☒ Library resources are adequate to support this proposal.
☐ Additional resources are needed but can be obtained from current funds.
☐ Significant additional Library funds/resources are required to support this proposal.

Liaison Librarian _____ Date _____

Section 9. Divisional Approval (To be completed by Division Chair and Administrative Assistant)

Human, Physical, and Financial Resources:
☒ Additional instructional costs (staff, materials, services or facilities) will be incurred to offer this course.
Source of funding: General Fund

☐ No additional instructional resources (staff, materials, services or facilities) are needed to offer this course.
Explain:

Required Certifications:
☐ We have developed minimum course certification standards according to the COPPs procedure "Instructor Qualifications: Credit," to be filed with OISS upon course approval.
☐ We have completed faculty certification form(s) for faculty qualified to teach this course, to be filed with OISS and Human Resources upon course approval.

Fees:
☒ We have completed fee rationale and fee request forms to be submitted to OISS upon course approval, in compliance with the COPPs procedure, "Fees: Special"
☐ No special fees will be required for this course.

Divisional Recommendation:
☐ The Division Chair and Administrative Assistant have reviewed this course proposal and kept a copy for divisional files.
☐ Faculty review of this course was completed within the division on 10/15 (date).

☐ Pass ☐ Do Not Pass

Administrative Assistant/Coordinator _____ Date _____

Division Dean _____ Date _____

Section 10. College Approval

Curriculum Committee Chair _____ Date _____

Executive Dean _____ Date _____

Curriculum Approval Committee hearing: _____ Date

Vice President, Academic Affairs, Chief Academic Officer _____ Date _____