BACHELOR OF SCIENCE IN NATIVE ENVIRONMENTAL SCIENCE

The Bachelor of Science in Native Environmental Science is intended to meet the critical need for effective Native American leaders and environmental scientists who are rooted in their culture. This program will emphasize and explore the interrelatedness of Native ways of knowing, traditional ecological knowledge and Western science. Prominent aspects of the program include hands-on learning and the involvement of students in community service, research and internships. The program will prepare graduates to work within Tribal communities in support of environmental stewardship, conservation and revitalization. This program was designed with considerable input from Pacific Northwest Tribal elders, leaders, environmental managers, educators and students. Students may choose between the Environmental Science Option and the Interdisciplinary Concentration Option. Students must complete at least 60 credits at the 300-499 level.

Environmental Science Option

The Environmental Science Option is intended for students interested in pursuing careers in the fields of biology or environmental science using the tools of Western science. Students completing this option may also be interested in pursuing graduate studies in environmental science.

Four-Year Option

This option is for students who have not earned an approved Associate in Arts and Sciences or the equivalent.

NORTHWEST INDIAN COLLEGE REQUIREMENTS		Credits
CMST 101	Introduction to Oral Communication (CS) OR	4
CMST 210	Interpersonal Communication (CS, HT) OR	
CMST 220	Public Speaking (CS, HT)	
CMPS 101	Introduction to Computers or above (TE)	3
HMDV 110	Introduction to Successful Learning (NE)	4
TOTAL NORTHWEST INDIAN COLLEGE REQUIREMENTS		**11**
NORTHWEST INDIAN COLLEGE FOUNDATIONAL REQUIREMENTS		Credits
CSOV 101	Introduction to Cultural Sovereignty (HT)	5
CSOV 102	The Language of Our Ancestors (HT) or approved Native language courses[1]	5
CSOV 120	Reclaiming Our History (SS)	5
CSOV 130	Icons of Our Past (HT)	5
ECON 250	Subsistence Economies: Restoring Prosperity (SS)	5
EDUC 202	The Tide Has Changed: Educating Our Own (SS)	5
POLS 225	History of Federal Indian Policy (SS)	5
TOTAL NORTHWEST INDIAN COLLEGE FOUNDATIONAL REQUIREMENTS		**35**

[1] One or more Native language courses totaling at least 5 credits. Consult with an advisor regarding satisfying general education requirements. Requires approval by the Dean of Academics and Distance Learning.

GENERAL EDUCATION REQUIREMENTS		Credits
ENGL 101	English Composition I (CS)	5
ENGL 202	Technical Writing or ENGL 102 English Composition II (CS)	5
Quantitative Skills 5 credit requirement- met in Core Requirement		0
Humanities Distribution 15 credit requirement- met in Foundational Requirements		0
Social Science Distribution 15 credit requirement- met in Foundational Requirements		0
Natural Science Distribution 15 credit requirement- choose courses meeting Prerequisite Requirement		0
TOTAL GENERAL EDUCATION REQUIREMENTS		**10**
PREREQUISITE REQUIREMENTS		Credits
CHEM 111	Inorganic Chemistry, or CHEM 121 (NSL)	5
CHEM 112	Organic Chemistry (NSL)	5
CHEM 113	Biochemistry (NSL)	5
GEOL 101	Introduction to Geology, or GEOL 111 (NSL)	5

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PREREQUISITE REQUIREMENTS CONTINUED		Credits
MATH 102	College Algebra[2] (QS)	5
MATH 107	Elementary Statistics I (QS)	5
TOTAL PREREQUISITE REQUIREMENTS		30

[2] The MATH 102 requirement may also be satisfied by the following higher level Math courses: MATH 103, MATH 105, MATH 124, MATH 125, or MATH 126.

CORE PROGRAM REQUIREMENTS		Credits
NESC 310	Native Science	5
NESC 393A-C	Native Environmental Science Seminar III (1 credit per quarter for 3 quarters)	3
NESC 493A-C	Native Environmental Science Seminar IV (1 credit per quarter for 3 quarters)	3
NESC 497	Internship in Native Environmental Science	5
NESC 499A	Native Environmental Science Capstone Project (taken during the junior year)	5
NESC 499B	Native Environmental Science Capstone Project (taken during the senior year)	5
POLS 319	From the Beginning of Time: Native American Fishing Rights	5
TOTAL CORE PROGRAM REQUIREMENTS		31

ENVIRONMENTAL SCIENCE OPTION REQUIRED COURSES		Credits
BIOL 201	Cell Biology (NSL)	5
BIOL 202	Plant Biology (NSL)	5
BIOL 203	Animal Biology (NSL)	5
BIOL 310	Ecology	5
MATH 210	Biostatistics (QS, NS)	5
And a combination of two of the three following courses:		10
ENVS 430	Aquatic Ecology OR	(5 each)
ENVS 440	Ecology of the Salish Sea OR	
ENVS 481	Ecophysiology	
TOTAL ENVIRONMENTAL SCIENCE OPTION REQUIREMENTS		**35**

ELECTIVES	Credits
Choose electives in consultation with a faculty advisor. A minimum of 19 elective credits must be at the 300-499 level. A maximum of 10 elective credits may be taken through individualized studies coursework (courses numbered 189, 289, 389, or 489) following the Native Environmental Sciences individualized studies course guidelines.	28
TOTAL ELECTIVE REQUIREMENTS	**28**
TOTAL DEGREE REQUIREMENTS, FOUR-YEAR OPTION	180

BACHELOR OF SCIENCE IN NATIVE ENVIRONMENTAL SCIENCE

Transfer Option

This option is for students who have earned an approved Associate in Arts and Sciences or the equivalent. Students who have completed another type of associate's degree should consult with an advisor about the transfer alternative. Transfer students may apply 90 credits from an approved transfer degree toward completion of the requirements for completion of the Bachelor of Science in Native Environmental Science. The following describes the coursework for the remaining 90 credits required for completion of the Environmental Science Option of the Bachelor of Science in Native Environmental Science.

TRANSFER CREDITS		Credits
Transfer credits		90
TOTAL TRANSFER CREDITS		**90**
PREREQUISITE REQUIREMENTS		Credits
Students are expected to complete the prerequisite courses as preparation for the Native Environmental Science core and required courses.		
CHEM 111	Inorganic Chemistry, or CHEM 121 (NSL)	5
CHEM 112	Organic Chemistry (NSL)	5
CHEM 113	Biochemistry (NSL)	5
GEOL 101	Introduction to Geology, or GEOL 111 (NSL)	5
MATH 102	College Algebra[2] (QS)	5
MATH 107	Elementary Statistics I (QS)	5
TOTAL PREREQUISITE COURSE REQUIREMENTS		**30**

[2] The MATH 102 requirement may also be satisfied by the following higher level Math courses: MATH 103, MATH 105, MATH 124, MATH 125, or MATH 126.

NATIVE ENVIRONMENTAL SCIENCE CORE REQUIREMENTS – MUST BE TAKEN AT NWIC		Credits
CSOV 300	Cultural Sovereignty Transfer Seminar	5
NESC 310	Native Science	5
NESC 393A-C	Native Environmental Science Seminar III (1 credit per quarter for 3 quarters)	3
NESC 493A-C	Native Environmental Science Seminar IV (1 credit per quarter for 3 quarters)	3
NESC 497	Internship in Native Environmental Science	5
NESC 499A	Native Environmental Science Capstone Project (taken during the junior year)	5
NESC 499B	Native Environmental Science Capstone Project (taken during the senior year)	5
POLS 319	From the Beginning of Time: Native American Fishing Rights	5
TOTAL NATIVE ENVIRONMENTAL SCIENCE CORE REQUIREMENTS		**36**
ENVIRONMENTAL SCIENCE OPTION REQUIRED COURSES		Credits
BIOL 201	Cell Biology (NSL)	5
BIOL 202	Plant Biology (NSL)	5
BIOL 203	Animal Biology (NSL)	5
BIOL 310	Ecology	5
MATH 210	Biostatistics (QS, NS)	5
And a combination of two of the three following courses:		10
ENVS 430	Aquatic Ecology OR	(5 each)
ENVS 440	Ecology of the Salish Sea OR	
ENVS 481	Ecophysiology	
TOTAL ENVIRONMENTAL SCIENCE OPTION REQUIRED COURSES		**35**
ELECTIVES		Credits
Choose electives in consultation with a faculty advisor. Prerequisite courses completed following transfer may be included as electives. A minimum of 14 elective credits must be at the 300-499 level. A maximum of 10 elective credits may be taken through individualized studies coursework (courses numbered 189, 289, 389, or 489) following the Native Environmental Sciences individualized studies course guidelines.		up to 9
TOTAL DEGREE REQUIREMENTS, TRANSFER OPTION		180

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Interdisciplinary Concentration Option

The Interdisciplinary Concentration Option allows students flexibility in designing a program that meets their own academic, professional, and personal goals within the framework of the Native Environmental Science degree. Students design a concentration under the guidance of a concentration committee. The Native Environmental Science Program Handbook provides guidelines for constructing a concentration. This option requires students to take significant responsibility for the concentration's design and development.

Four-Year Option

This option is for students who have not earned an approved Associate in Arts and Sciences or the equivalent.

NORTHWEST INDIAN COLLEGE REQUIREMENTS		Credits
CMST 101	Introduction to Oral Communication (CS) OR	4
CMST 210	Interpersonal Communication (CS, HT) OR	
CMST 220	Public Speaking (CS, HT)	
CMPS 101	Introduction to Computers or above (TE)	3
HMDV 110	Introduction to Successful Learning (NE)	4
TOTAL NORTHWEST INDIAN COLLEGE REQUIREMENTS		**11**

NORTHWEST INDIAN COLLEGE FOUNDATIONAL REQUIREMENTS		Credits
CSOV 101	Introduction to Cultural Sovereignty (HT)	5
CSOV 102	The Language of Our Ancestors (HT) or approved Native language courses[1]	5
CSOV 120	Reclaiming Our History (SS)	5
CSOV 130	Icons of Our Past (HT)	5
ECON 250	Subsistence Economies: Restoring Prosperity (SS)	5
EDUC 202	The Tide Has Changed: Educating Our Own (SS)	5
POLS 225	History of Federal Indian Policy (SS)	5
TOTAL NORTHWEST INDIAN FOUNDATIONAL REQUIREMENTS		**35**

[1] One or more Native language courses totaling at least 5 credits. Consult with an advisor regarding satisfying general education requirements. Requires approval by the Dean of Academics and Distance Learning.

GENERAL EDUCATION REQUIREMENTS		Credits
ENGL 101	English Composition I (CS)	5
ENGL 102	English Composition II (CS) OR	5
ENGL 202	Technical Writing (CS)	
Quantitative Skills 5 credit requirement- met in Prerequisite Requirements		0
Humanities Distribution 15 credit requirement- met in Foundational Requirements		0
Social Sciences Distribution 15 credit requirement- met in Foundational Requirements		0
Natural Sciences Distribution 15 credit requirement- met in Prerequisite Requirements		0
TOTAL GENERAL EDUCATION REQUIREMENTS		**10**

PREREQUISITE REQUIREMENTS		Credits
Students are expected to complete the prerequisite courses as preparation for the Native Environmental Science core and Interdisciplinary Concentration Option requirements.		
BIOL 101	Introduction to Biology, or BIOL 100, 111, 130, or 201 (NSL)	5
CHEM 111	Inorganic Chemistry, or CHEM 121 (NSL)	5
GEOL 101	Introduction to Geology, or GEOL 111 (NSL)	5
MATH 107	Elementary Statistics I[3] (QS)	5
TOTAL PREREQUISITE COURSE REQUIREMENTS		**20**

[3] MATH 107 is the recommended course for students who may not plan on pursuing graduate studies where additional precalculus or calculus-based math coursework is required. Consult with a faculty advisor in choosing the best math course for your area of interest. Students may also satisfy this mathematics requirement by taking MATH 102, MATH 103, MATH 105, MATH 124, MATH 125, MATH 126, or MATH 210.

ELECTIVE CREDITS TO TOTAL AAS DEGREE REQUIRED 90 CREDITS	14

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NATIVE ENVIRONMENTAL SCIENCE CORE REQUIREMENTS – MUST BE TAKEN AT NWIC		Credits
NESC 310	Native Science	5
NESC 393A-C	Native Environmental Science Seminar III (1 credit per quarter for 3 quarters)	3
NESC 493A-C	Native Environmental Science Seminar IV (1 credit per quarter for 3 quarters)	3
NESC 497	Internship in Native Environmental Science	5
NESC 499A	Native Environmental Science Capstone Project (taken during the junior year)	5
NESC 499B	Native Environmental Science Capstone Project (taken during the senior year)	5
POLS 319	From the Beginning of Time: Native American Fishing Rights	5
TOTAL NATIVE ENVIRONMENTAL SCIENCE CORE REQUIREMENTS		**31**
INTERDISCIPLINARY CONCENTRATION OPTION REQUIREMENTS (MINIMUM 29 CREDITS MUST BE 300-499)		Credits
NESC 305	Native Environmental Science Concentration Seminar (taken the 1st or 2nd quarter in concentration)	5
Individualized studies courses within concentration[4]		21
Selected courses taken within concentration as approved in Interdisciplinary Concentration Option proposal		33
TOTAL INTERDISCIPLINARY CONCENTRATION OPTION REQUIREMENTS		**59**
TOTAL DEGREE REQUIREMENTS, FOUR-YEAR OPTION		180

[4] Individualized studies courses focus on key areas of inquiry contained in the concentration, such as: relevant work experience, travel study projects, service learning, field school, and volunteer projects. It is suggested that at least 5 credits of the interdisciplinary concentration coursework contain a service learning component.

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Transfer Option

This option is for students who have earned an approved Associate in Arts and Sciences or the equivalent. Students who have completed another type of associate's degree should consult with an advisor about the transfer alternative. Transfer students may apply 90 credits from an approved transfer degree toward completion of the requirements for completion of the Bachelor of Science in Native Environmental Science. The following describes the coursework for the remaining 90 credits required for completion of the Interdisciplinary Concentration Option of the Bachelor of Science in Native Environmental Science.

TRANSFER CREDITS		Credits
Transfer credits		90
TOTAL TRANSFER CREDITS		**90**
PREREQUISITE REQUIREMENTS		Credits
Students are expected to complete the prerequisite courses as preparation for the Native Environmental Science core and Interdisciplinary Concentration Option requirements.		
BIOL 101	Introduction to Biology, or BIOL 100, 111, 130, or 201 (NSL)	5
CHEM 111	Inorganic Chemistry, or CHEM 121 (NSL)	5
GEOL 101	Introduction to Geology, or GEOL 111 (NSL)	5
MATH 107	Elementary Statistics I[3]	5
TOTAL PREREQUISITE COURSE REQUIREMENTS		**20**

[3] MATH 107 is the recommended course for students who may not plan on pursuing graduate studies where additional precalculus or calculus-based math coursework is required. Consult with a faculty advisor in choosing the best math course for your area of interest. Students may also satisfy this mathematics requirement by taking MATH 102, MATH 103, MATH 105, MATH 124, MATH 125, MATH 126, or MATH 210.

NATIVE ENVIRONMENTAL SCIENCE CORE REQUIREMENTS – MUST BE TAKEN AT NWIC		Credit
CSOV 300	Cultural Sovereignty Transfer Seminar	5
NESC 310	Native Science	5
NESC 393A-C	Native Environmental Science Seminar III (1 credit per quarter for 3 quarters)	3
NESC 493A-C	Native Environmental Science Seminar IV (1 credit per quarter for 3 quarters)	3
NESC 497	Internship in Native Environmental Science	5
NESC 499A	Native Environmental Science Capstone Project (taken during the junior year)	5
NESC 499B	Native Environmental Science Capstone Project (taken during the senior year)	5
POLS 319	From the Beginning of Time: Native American Fishing Rights	5
TOTAL NATIVE ENVIRONMENTAL SCIENCE CORE REQUIREMENTS		**36**
INTERDISCIPLINARY CONCENTRATION OPTION REQUIREMENTS (MINIMUM 24 CREDITS MUST BE 300-499)		Credits
NESC 305	Native Environmental Science Concentration Seminar (taken the 1st or 2nd quarter in concentration)	5
Individualized studies courses within concentration[4]		21
Selected courses taken within concentration as approved in Interdisciplinary Concentration Option proposal[5]		28

[4] Individualized studies courses focus on key areas of inquiry contained in the concentration, such as: relevant work experience, travel study

[5] A total of 28 credits of selected courses within the concentration are required. Some of these credits may also be used to satisfy prerequisite requirements. Choose selected courses in consultation with the concentration committee as part of the Interdisciplinary Concentration Option proposal.

TOTAL INTERDISCIPLINARY CONCENTRATION OPTION REQUIREMENTS	**54**
TOTAL DEGREE REQUIREMENTS, TRANSFER OPTION	180

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BACHELOR OF SCIENCE IN NATIVE ENVIRONMENTAL SCIENCE

PROGRAM OUTCOMES

SENSE OF PLACE

Indigenous peoples have deep and sustained connections to place. Knowledge of the environment has been, and continues to be, critical in supporting and maintaining resilient and thriving communities. Indigenous peoples have historically created and continue to create new technologies appropriate to their places. Native environmental scientists build upon their connection to place by being innovative and using Indigenous knowledge and technologies to promote sovereignty and self-determination.

Upon successful completion of this program, students will be able to:

- Value the interrelationships between people and the environment.
- Ground and apply concepts and methodologies to place.

RELATIONALITY

Awareness of self and knowledge of relational ancestry has been, and continues to be, an essential quality of Indigenous peoples. This awareness provides guidance and accountability to carry out the work of the ancestors for future generations. Relationality and self-location position Native environmental scientists to lead in the restoration and revitalization of the environment.

Upon successful completion of this program, students will be able to:

- Demonstrate competence in bodies of knowledge associated with environmental science (e.g., chemistry, biology, ecology, etc.)
- Value relationality in the practice of Native Environmental Science.Match the intended purpose/intent with the appropriate technology.
- Evaluate and interpret environmental laws, policies, and acquired rights, and advocate for inherent rights.

INQUIRY

Inquiry is deeply embedded in relationality, sense of place, and worldview, and it is inclusive of ways of knowing and research. Native environmental scientists perform inquiry by engaging in research and addressing questions that are relevant to Indigenous communities with the goal of restoring and revitalizing the environment. Native environmental scientists approach inquiry in ways that are respectful of and in service to Indigenous communities.

Upon successful completion of this program, students will be able to:

- Use Indigenous theories and methods to conduct inquiry-based research and evaluation that respond to the needs of Indigenous communities and serve to promote Indigenous self-determination.
- Evaluate and use appropriate technologies for inquiry-based research in support of restoration and revitalization of the environment.
- Evaluate and apply quantitative, qualitative, and mixed methodologies and concepts that include the synthesis of complex information.

COMMUNICATION

Communication is foundational to the survival and identity of Indigenous peoples and includes intergenerational and intertribal transmission of knowledge about the relationships between people and place. Native environmental scientists enact the transfer of knowledge by communicating effectively in diverse settings through the use of a strong oral tradition, the written word, and imagery. Native environmental scientists effectively synthesize and communicate complex information to a variety of audiences with the intent to promote Indigenous self-determination and the restoration and revitalization of the environment.

Upon successful completion of this program, students will be able to

- Communicate using oral, written, and graphical (visual) methods to support Indigenous self-determination.
- Communicate effectively to multiple audiences, including Indigenous communities, policy makers, scientific communities, and the general public.