

RECORD OF ACADEMIC ACHIEVEMENT The Evergreen State College - Olympia, Washington 98505

A00375525

Student ID

Young, Zachary G

Last, First Middle

DEGREES CONFERRED:

Bachelor of Science

Awarded 03 Sep 2021

EVERGREEN UNDERGRADUATE CREDIT:

Start	End	Credits	Title
09/2016	06/2017	46	 Ecological Niche: The Interface of Human and Animal Behavior 6 - Introduction to Field Ecology and the Nature Journal 4 - Introduction to Research and Quantitative Methods in Field Ecology 4 - Ecology 6 - Introduction to Developmental Psychology-Piaget, Systems Theory, Ethology and Intelligence 4 - Introduction to Essential Psychopathology 4 - The Self and Nature: Autobiographical writing 8 - Composition: Environmental Memoir and Social Justice 4 - Independent Literature Review: Orca Conservation: Issues and Solutions 6 - Community service: Hands on Children's Museum
09/2017	12/2017	16	 Salmon, Raven, and Whale: The Pacific Northwest in Art and Science 4 - Natural History of the Pacific Northwest 4 - Introduction to Ecology and Evolutionary Biology 4 - Introduction to Pacific Northwest Native Design 4 - Introduction to Pacific Northwest Native Woodcarving
01/2018	06/2018	30	 Environmental Problem Solving 4 - Political Science and Environmental Policy 4 - Applications of Micro Economics for Environmental Problem Solving 8 - General Ecology 5 - Field Ecology 3 - Introduction to Descriptive Statistics 4 - Environmental Problem-Solving 2 - Capstone Research Project
09/2018	06/2019	40	Integrated Natural Science 15 - General Biology with Lab I, II and III 16 - General Chemistry with Lab I, II and III 5 - Physical Geology 2 - Statistics with Excel 2 - Science Communication
09/2019	12/2019	14	Island Ecology and Evolution *5 - Island Ecology and Evolution *3 - Island Biodiversity *2 - Island Ecology Fieldwork *2 - Island Ecology Seminar *2 - Ecology Laboratory



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EVERGREEN UNDERGRADUATE CREDIT:

Start	End	Credits	Title
01/2020	06/2020	16	 Psychology and Social Justice: Making Change Happen 6 - Human Development 6 - Social Psychology 4 - Social Psychology and Social Justice
01/2020	03/2020	4	Ceramics: Foundational Skills 4 - Studio Art
01/2020	03/2020	2	Cuban Salsa 2 - Cuban Salsa
03/2020	06/2020	1	Ceramics: Expressive Portraits 1 - Visual Arts
09/2020	03/2021	20	The Fungal Kingdom *6 - Lichen Biology and Ecology *6 - Fungal Biology and Ecology *4 - Scientific Communication *2 - Fungal Taxonomy *2 - Lichen Taxonomy
03/2021	06/2021	8	Advanced Topics in the Biology of Sharks and Rays *3 - Elasmobranch Behavior *3 - Elasmobranch Evolutionary Biology *2 - Capstone Project: Pelagic Shark Fishing
03/2021	06/2021	8	Ecological Restoration Projects *4 - Ecological Restoration *4 - Wildlife Biology

Cumulative

205 Total Undergraduate Credits Earned



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The experience that I had at Evergreen has been to challenge myself to understand the world that is around me through the lens' of how we are as people and how the natural world functions. My main focuses were the natural sciences including ecological systems, population dynamics and how biological organisms function; I also took significant attention to the foundations of psychological research to understand human behavior. Evergreen supported my needs as a student with the services they had provided and the ability to work while being a student, a tough yet rewarding balance. I was given the opportunity to be a successful scholar at this institution.

My studies sharpened my critical thinking skills through analysing data, researching topics through the primary literature and following the scientific process to answer the questions I wanted to explore. Consistently I was put out of my comfort zone only to become confident in the skills I have gained, my ability to have my needs taken care of so I can access the knowledge that I am seeking. It's important for me to know myself to work in group settings effectively, this journey did not occur in a vacuum and my colleagues were important in my growth and development in this academic setting. My previously gained leadership skills allowed me to help facilitate many cooperative learning opportunities even when they were not strictly assigned as group work. I challenged myself to move forward and figure out how to be successful in ways I never had the confidence to attempt.

Thank you for taking the time to understand in my own words, the experience that I received at The Evergreen State College,

Zach Young



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March 2021 - June 2021: Ecological Restoration Projects

8 Credits

DESCRIPTION:

Faculty: Lalita Calabria, Ph.D.

During the spring quarter this year, the student engaged in a variety of **Ecological Restoration Projects** including but not limited to: oak woodland restoration and forest-unit fire prep, squirrel survey season preparation, a western pond turtle radio telemetry census w/WDFW, invasive plant surveys and noxious weed treatment (herbicide applicator licensing available), seeding/vegetation research plots, rare butterfly surveys and WDFW support, timber sale surveys (migratory bird treaty act plus ecological resource mapping), western toad surveys, steel head surveys, and others. The student also read one-two peer-reviewed articles per week about wildlife management and conservation and maintained an intellectual journal synthesizing the readings and field work performed. The student also wrote a five-page research paper on the restoration of Purple Martin habitat on Joint-Base Lewis-McChord.

EVALUATION:

Written by: Lalita Calabria, Ph.D.

During Spring quarter 2021, Zachary Young engaged in a variety of ecological restoration projects on Joint-Base Lewis McChord. His field supervisor, Dennis Buckingham, had this to report about Zach's performance:

"Zach Young participated in the JBLM Fish & Wildlife internship program and proved to be an outstanding team member on every project. Forestry and habitat projects he worked on include surveying proposed timber sales for unmapped ecological resources and rare species, removing invasive shrubs around planted oak saplings, assisting with a riparian cedar planting to shade a salmon bearing stream, backpack spraying sulphur cinquefoil in high quality native prairie (within an area occupied by streaked horned-larks), post-burn/pre-seed mowing of several open prairie and woodland edge areas, assisting our stand-development forester to maintain a replanted harvest block, and mapping English hawthorn for eradication efforts. On the wildlife side, Zach helped our partner agency Ecostudies Institute with rare butterfly surveys, helped WDFW prep their Taylor's checkerspot sampling grid for occupied habitat areas, conducted a western toad survey in some occupied kettle wetlands, joined WDFW biologists at the South Puget Sound Wildlife Area to trap and radio tag western pond turtle females to track egg laying outcomes, helped repair purple martin towers and survey occupied box and snag nesting colonies of purple martins, and served as a field leader in our western bluebird fledgling success surveys.

"Zach was a great addition to every team. He is hard working, reliable, engaged, fun to work around, careful with equipment and data, and basically everything you could ask for in an intern. He showed particular interest and acumen on our various bird surveys and our avian biologist asked for him specifically to be a lead for our annual bluebird surveys. It was great having Zach be part of our spring 2021 team and I will enthusiastically recommend him for future positions, scholarships, or opportunities."

Zach's weekly entries in his intellectual journal demonstrated a growing understanding of restoration work and familiarity with key conservation issues for several species of wildlife and habitats found on JBLM. Using various research articles Zach showed the ability to synthesize information from a variety of sources and identify key steps necessary for successful restoration project outcomes. In his final paper, Zach considered how to effectively integrate restoration management while partnering with various



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stakeholders to enhance biodiversity conservation for the Purple Martin. Overall, Zach is well prepared for continued, advanced work in the field of wildlife conservation and ecological restoration.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 8

*4 - Ecological Restoration

*4 - Wildlife Biology

* indicates upper-division science credit



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March 2021 - June 2021: Advanced Topics in the Biology of Sharks and Rays 8 Credits

DESCRIPTION:

Faculty: Amy Cook, Ph.D.

Student Originated Studies: Advanced Topics in the Biology of Sharks and Rays covered several topics in the biology of elasmobranchs (sharks and rays) including population biology, migration and aggregation, behavior, husbandry in the captive environment, and evolutionary history. Lectures introduced these topics and class discussions and assignments reinforced students learning. Many of the assignments asked students to apply concepts that they had learned in class or in reading an article in the scientific literature to a novel system or question. For example, students read the chapter "Species Selection and Compatibility" (Dehart, 2004) in *The Elasmobranch Husbandry Manual*, and were then given a list of four elasmobranch species and asked to design an exhibit around them.

Jigsaw discussions required each student to read a scientific paper on a particular topic and then bring the concepts in their paper to a larger discussion of that topic. Jigsaw topics included a hammerhead nursery in Hawaii, the white shark shared offshore foraging area ("White Shark Café"), and the paleobiology of megalodon. Students also had seminar discussions on two books - *The Lady and the Sharks* by Eugenie Clark and *Resurrecting the Shark: A Scientific Obsession and the Mavericks Who Solved the Mystery of a 270-Million-Year-Old Fossil* by Susan Ewing. In these class discussions, students were evaluated on their participation, their ability to see connections with other texts and concepts presented in class, and their critical thinking skills.

Each student chose a topic of elasmobranch biology to research. This research was based on the primary literature on their chosen topic and was presented in a paper in which they were expected to clearly demonstrate a firm grasp of the biology presented in class, the depth of their understanding of the topic, and good scientific writing.

EVALUATION:

Written by: Amy Cook, Ph.D.

Over the course of this quarter Zachary (Zach) developed a solid grounding in elasmobranch (sharks and rays) biology. He demonstrated a firm grasp of the population biology, migration and aggregation, behavior, husbandry, and evolutionary biology in these animals.

In class assignments Zach effectively applied concepts from the lectures and readings to other systems and problems. His vulnerability and resilience assignment clearly demonstrated his understanding of the relationship between a species' biology and life history characteristics and its sensitivity to things like overfishing and habitat degradation. In Zach's elasmobranch exhibit design he provided a detailed and well-researched description of a three-tank exhibit plan he developed for four species - blacknose shark (Carcharinus acronotus), southern stingray (Dasyatis americana), epaulette shark (Hemiscyllium ocellatum), and spotted wobbegong (Orectolobus maculatus). This plan clearly took into account these species' size, locomotor behavior, and ability to get along with each other and fish and invertebrate species that might share the exhibit. Zach also described the key aspects of captive care of each species. In the final assignment of the guarter he provided a good analysis of the behavior of sharks at whale carcasses based on a series of YouTube videos. His assignment also included a well thought-out discussion of the paper "Social behaviour in sharks and rays: analysis, patterns and implications for conservation" (Jacoby et. al., 2012) that demonstrated a deep understanding of social behavior in sharks and described how the concepts in the paper might be applied to the study of social networks in leopard shark aggregations. Throughout his assignments in this program, Zach clearly demonstrated his ability to apply concepts from the literature and material presented in class to a novel system.



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In the jigsaw discussions, Zach presented the following papers – "Habitat use, growth rates and dispersal patterns of juvenile scalloped hammerhead sharks *Sphyrna lewini* in a nursery habitat" (Duncan and Holland, 2006), "Migration patterns of white sharks *Carcharodon carcharias* tagged at Guadalupe Island, Mexico, and identification of an eastern Pacific shared offshore foraging area" (Domeier and Nasby-Lucas, 2008), and "Geographical distribution patterns of *Carcharocles megalodon* over time reveal clues about extinction mechanisms" (Pimiento et. al., 2016). He participated fully in each discussion. Zach was comfortable with the terminology and concepts in the papers and in the discussions he frequently made connections among the ideas in the different papers. In the jigsaw discussions he demonstrated good critical thinking skills including developing well-reasoned conclusions from the research in the papers and describing that research in terms of its broader implications and consequences. These skills were also evident in his performance in the seminar discussions. Reading the two seminar books clearly deepened Zach's understanding of shark biology, paleontology, and research. His comments in the discussion showed that he recognized the challenges of studying shark behavior and of trying to reconstruct the anatomy and biology of an extinct animal from its fossils.

Zach developed and carried out a research project that focused on pelagic shark fishing in the Pacific Ocean. The project included research in the primary literature to support a paper. The paper provides a good discussion of the challenges of studying and monitoring pelagic fisheries and overview of shark fishing. Zach presented well-researched discussions of who the regulating agencies are, the main metrics that they use to track catches, and the challenges behind fishing regulations that contribute to population declines in the species regulated. He made good use of the shark fishery in Tanjung Laur, Indonesia as an example of some of the concepts he presented. The project paper was generally well written with proper use of in-text citations, and a clear bibliography.

Zach was an active participant in all class activities and took full advantage of the learning opportunities presented in the class. He significantly expanded his view of the biology of chondrichthyans and clearly demonstrated the ability to do advanced work in this field.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 8

- *3 Elasmobranch Behavior
- *3 Elasmobranch Evolutionary Biology
- *2 Capstone Project: Pelagic Shark Fishing

* indicates upper-division science credit



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September 2020 - March 2021: The Fungal Kingdom

20 Credits

DESCRIPTION:

Faculty: Lalita Calabria Ph.D. and Paul Przybylowicz, Ph.D.

The Fungal Kingdom was a two-quarter, junior/senior program focused on the taxonomy, physiology and ecology of fungi, with an emphasis on Pacific Northwest fungi and lichens. There were both 16- and 12-credit options available in winter quarter. This program was taught primarily as a distance-learning offering with limited on-campus field work due to COVID-19. Students remote work was centered around hands-on, direct observation of fungi and lichens in the field with access to laboratory tools for identifying fungi including compound and dissecting microscopes.

The major learning objectives were to: 1) develop a detailed understanding of the biology, ecology and taxonomy of lichens and fungi; 2) become proficient using field methods for mushroom and lichen collection and laboratory methods for identification, including dichotomous keys, dissection and compound microscopy, molecular systematics, and chemical testing; 3) demonstrate the ability to recognize the common fungi and lichen species of the PNW; and 4) to develop scientific writing, critical thinking and research skills, as well as science communication skills. Students' understanding was assessed through weekly quizzes and several quarter-long projects. Some students opted to take portions of the program; each major component of the program is described below.

Texts for fungal biology and physiology included *The Fungi* by Watkinson, Boddy and Money and the

21st Century Guidebook to fungi by Moore, Robson and Trinci, along with selected scientific research papers. Lichen lectures were supported by readings from *Lichens of North America* by Brodo, Sharnoff and Sharnoff, a series of essays titled *Ways of Enlichenment* by Goward and a selection of peer-reviewed literature. Topics covered during fall quarter included: lichen biodiversity, evolution and reproduction, fungal diversity and classification, molecular systematics, cell biology, spore production and discharge, genetics, human uses of fungi, and bioinformatics.

During winter quarter, the focus was fungal and lichen ecology and diversity. Topics covered included: ecophysiology of lichens and fungi, environmental monitoring using lichens, lichen conservation and the ecology of various groups of fungi—pathogens, decay, mycorrhizae, and endophytes.

In the fall, field collection and identification skills were a significant focus. Students used dichotomous keys to identify unknown mushroom and lichen specimens and developed fluency in identification terminology. Every student compiled both a lichen and mushroom Identification Notebook. Each Notebook contained a minimum of ten specimens, with a description of morphological and chemical characteristics, field notes, dichotomous key paths used for identification as well as photos for each specimen and drawing of key features for three specimens. Field identification skills were further developed using *iNaturalist*, an online citizen science tool to document biodiversity. Weekly observations for both mushrooms and lichens were required. A sight identification exam tested students' ability identify local mushrooms and lichens from memory using scientific names.

During the winter, students learned lichen field sampling methods and further expanded their lichen ID skills. Students worked in teams to survey lichen plots in two different forest types using standard Forest Inventory Analysis (FIA) protocols and identified all the collected lichens. Students analyzed the data and presented their results. Microlichen collection and identification skills were developed through completion of a crustose lichen Identification Notebook. This required use of a compound microscope to measure spores and to verify other morphological characters.



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Students further developed microscope skills through a microscopic fungal diversity project. The project included isolation of endophytes and other fungi from the environment, which were used as source material for DNA isolation and sequencing, as well as detailed observations of characteristic features for different groups of microscopic fungi.

Students completed a two-part workshop in fall focusing on the application of molecular tools for identifying fungi. Students learned to edit and align raw sequence data using MEGAX software (Molecular Evolutionary Genetics Analysis) and then used BLAST (Basic Local Alignment Sequence Tool) to compare their data with sequences in online DNA databases. During winter quarter, students repeated the entire process a second time to identify the endophytes and other fungi they isolated. All the sequence data generated in fall and winter was used to learn multiple sequence alignment and how to build phylogenetic trees.

During the fall, students also explored a topic in mycology/lichenology of their choice through research in the scientific literature and summarized their findings through an annotated bibliography, draft revisions and a final 4-6 page paper. Peer-review workshops, along with faculty reviews guided the project. Each student also gave a presentation via Zoom to the class.

In winter, scientific writing was a four-credit option within the program. Students participated in weekly writing workshops, anchored by the text *Writing Science*, that analyzed primary papers and how to improve them. Students worked in pairs to develop, write and present a research proposal. Students presented their proposals at the end of the quarter.

EVALUATION:

Written by: Lalita Calabria Ph.D. and Paul Przybylowicz Ph.D.

Zachary Young, who goes by Zach, was an engaged, hard-working student who participated actively in our learning community. This was Zach's first upper-division science class which was both challenging and motivating. Zach made significant progress in fungal and lichen biology and ecology. He attended a majority of the synchronous meetings and completed most of the assigned work. His answers on the weekly study questions and his performance on the quizzes indicated a good understanding of fungal and lichen biology in fall. In winter Zach showed an adequate to fair understanding of fungal and lichen ecology topics covered.

In the taxonomy portion of the program, Zach completed much of the work and made good progress. Zach's mushroom identification notebook was incomplete and demonstrated a developing ability to identify mushrooms using available resources. On the final sight identification exam, Zach demonstrated a good ability to identify 30 common mushrooms using scientific names.

Zach's lichen identification notebook was incomplete and demonstrated a limited grasp on applying morphological terminology and using dichotomous keys to identify an unknown lichen species. On the final sight identification exam, Zach demonstrated a good ability to identify 30 lichen species using scientific names. Overall, Zach showed a developing ability to identify lichens using available resources.

Zach completed most of required entries into our class iNaturalist projects. He also supported others through suggesting identifications. Based on the quality and completeness of Zach's entries and his learning reflection, it was clear that Zach used this online community science tool effectively.

In winter quarter, Zach further developed his lichen identification skills through two projects: the lichen plots and the crustose lichen project. Zach contributed to all aspects of the FIA lichen plot research including field sampling, macrolichen identification, data entry and organization. At the end of the quarter, Zach's team developed a research question to explore using the class data. Zach's team did an excellent



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job of accurately identifying all lichens in their plots, including several taxonomically challenging species. Their summary and analysis of the data was a good and included a well-defined research question with graphs/tables illustrating their results. In summary, Zach was a hard-working, collaborative and engaged member of his lichen plot research team and met the major learning objectives for this project.

During winter quarter, Zach found the microscopic fungal diversity project challenging in the remote learning environment and he completed a fraction of the work. His final lab report demonstrated a very basic grasp of the microscopic skills covered. Overall, Zach's work on this project improved his microscopy skills and he demonstrated a developing proficiency with a compound microscope.

Zach also gained additional experience with molecular techniques to identify fungi and bioinformatics in winter quarter. Zach demonstrated solid lab skills and successfully isolated fungal DNA during an inperson lab. He successfully aligned DNA sequences and constructed a phylogenetic tree from class data. Zach did an excellent job with analyzing and interpreting the results of the phylogenetic analysis.

Zach was a regular participant in research seminar. He completed all of the seminar responses and group annotations, which deepened his skills in interpreting primary scientific papers from a critical perspective.

Zach's understanding of effective scientific writing has increased this quarter, as demonstrated through the completion of a literature review paper on the topic of pathogenic yeast. Zach took advantage of the opportunities for faculty and peer feedback on revisions, and this was reflected in his final paper which was excellent. Zach's final presentation to the class was similarly excellent, well-rehearsed and informative.

Overall, Zach made significant progress in understanding fungal biology, ecology and taxonomy, including lichens. He gained hands-on skills with identification of Pacific Northwest lichens and mushrooms using dichotomous keys. Zach is well prepared for more advanced work in mycology. It was a pleasure having him in the program.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 20

- *6 Lichen Biology and Ecology
- *6 Fungal Biology and Ecology
- *4 Scientific Communication
- *2 Fungal Taxonomy
- *2 Lichen Taxonomy

* indicates upper-division science credit



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March 2020 - June 2020: Ceramics: Expressive Portraits

1 Credits

DESCRIPTION:

Faculty: Joelle Montez

In this course, Ceramics: Expressive Portraits, students learned how to draw and sculpt the human figure. Using asynchronous video tutorials and live, synchronous demonstrations, students worked with wire armatures and clay to learn anatomy of the full figure. A series of projects focused on skeletal structure, movement, balance, musculature, and creating expression through form were assigned weekly culminating in a final expressive figure sculpture.

Students gained skills through figure sketching exercises, working from recorded live-model sessions. They learned how to capture the essence of a pose with gesture and blind contour drawing, visualizing the body in shapes and planes, and sight sizing to confirm proportions. Using oil based clay students worked from the same live-model sessions and translated the skills learned with two dimensional drawing into three dimensional maquettes. These exercises built skills in spacial-awareness working with contours, shadows, and positive and negative space.

Throughout the quarter, each student worked on a primary oil clay maquette which they built up from a skeleton form to a fully fleshed figure. Each week they submitted progress photos and were given feedback on their work.

Students participated in critique discussing formal and conceptual elements in figurative art. They wrote a comprehensive research essay comparing two figurative artists of their choice, dissecting the methods used by the artist to convey meaning.

Students learned to use two types of clay: Plasteline oil based clay served as our "sketching" material, allowing us to rapidly sculpt exercise pieces and maquettes, and Polymer clay was used to create finished pieces. These final figures were fired to low temperatures and surfaced with paint and other mixed media. Upon completing this course students have a solid foundation in artistically rendering the human figure, and are ready for intermediate and advanced studies in visual arts and anatomy.

EVALUATION:

Written by: Joelle Montez

Zachary, who goes by Zach, took the online course Ceramics: Expressive Portraiture. Though incomplete, his participation and submitted assignments showed that he has the potential to create dynamic figurative work, but struggled with self-direction. During critique, Zach gave positive feedback to peers and participated thoughtfully. With more focus and direction I know Zach will exceed expectations as a student.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 1

1 - Visual Arts



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January 2020 - March 2020: Cuban Salsa

2 Credits

DESCRIPTION:

Faculty: Scott Saunders

Cuban Salsa, also called Casino in Cuba, is a social partner dance performed to modern Salsa music, known as Timba in Cuba. In this course students learned the basic rhythms, steps, and body movements of Cuban Salsa. Students practiced individually, with partners, and a circle known as Rueda de Casino. Emphasis was placed on understanding the basic rhythmic structure of Salsa music through listening, counting, stepping and connecting movements. Students practiced basic moves/steps for both lead and follow roles in this partner dance, typically focusing on lead or follow roles, and then advancing to a coordinated circle (Rueda de Casino) following called moves that included frequent changing of partners. Students learned by dancing every week in classes, nearly 100% of class time was spent moving. Students also learned about the history of Cuban Salsa and its varied roots in Cuban folkloric music, dance and culture. Students learned to coordinate body movements, combining steps, hips, shoulder and arm movements. Calls are in Spanish, so students learned applied Spanish language and elements of the dance culture of Cuban Salsa.

EVALUATION:

Written by: Scott Saunders

Zachary participated in weekly Cuban Salsa dance classes. They participated in warm up footwork activities, reviews of moves and Rueda de Casino sessions. They also performed lead and follow roles, frame activities to develop partner dancing sensibility and individual salsa dancing movements. By the end of the quarter they were able to demonstrate all of the basic salsa patterns studied. It was a pleasure to have Zachary in class.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 2

2 - Cuban Salsa



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January 2020 - March 2020: Ceramics: Foundational Skills

4 Credits

DESCRIPTION:

Faculty: Joelle F. Montez

Ceramics: Foundational Skills was an introductory class that covered the basics of working in clay. The main goal of the course was for students to gain an understanding of the stages of clay, from greenware through firing, learning how to utilize building and finishing techniques appropriate for each stage. They were introduced to an array of handbuilding techniques from slab to solid sculpture, as well as throwing on the potter's wheel.

Students were assigned 5 studio projects along with a quiz and a one page research/personal reflection paper. The ceramics projects were a 3-part pinch pot finished with burnished terra sigillata; a slab plate decorated with slips using stencils, carving and painting; a hard slab box; a conceptual self-portrait sculpture using an armature; and 3 bowls thrown on the potter's wheel. There were informal class critiques involving each student's work as well as journaling workshops designed to inform their creative process and generate conceptual imagery. We had a seminar discussion about identity, art, and cultural appropriation leading into the research paper. The class concluded with a workshop on writing professional artist statements and a final critique of finished work.

EVALUATION:

Written by: Joelle F. Montez

Zachary (Zach) produced excellent work in Foundational Ceramics, dedicating time and creative energy to the class. He was present for class critiques and gave positive feedback to his peers during group workshops. He put a lot of thought into the studio projects, showing growth in his ability to learn advanced building techniques and apply theory to practice. Zach displayed a working understanding of the materials and succeeded with completing all of the studio projects and research assignments. This studio based class required 5-8 hours of independent work each week outside of class, which Zach utilized regularly based on the quality and breadth of his work. His quiz score demonstrated a proficient knowledge of the stages of clay and when to appropriately use techniques covered in class. Zach's independent research paper was thorough and introspective, expressing ideas of personal identity, cultural history, and the symbolic use of formal elements. The themes in his paper were reflected boldly in a self-portrait sculpture, showing integrated ideas and critical thinking. He described during this process, "every day I was working on this piece I was working on myself." Zach participated respectfully and collaboratively in the studio community and is prepared for continued studies in the visual arts field.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 4

4 - Studio Art



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January 2020 - June 2020: Psychology and Social Justice: Making Change Happen 16 Credits

DESCRIPTION:

Faculty: Marcella Benson-Quaziena, Ph.D. and George Freeman, Ph.D.

Students in *Making Change Happen* developed knowledge in human development and organizational change. The guiding questions of this program were framed in terms of democracy, social justice, welfare, civil rights, and personal transformation and transcendence. We examined the psychology of change, what role transcendence plays in our ways of thinking about change, and how equity and justice are served. This program explored these questions in the context of systems theory, multicultural and anti-oppression frameworks, leadership development, and within the context of the civil rights movement. The stance of the program was a belief that the personal is political and vice-versa so we have to understand what experiences inform our stance towards change.

The Objectives of the program were: 1) To develop the ability to balance action in the world and self reflection; 2) To develop awareness of self in relation to change and opportunities for change; 3) To gain a greater understanding of human development from Western and non-Western perspectives; 4) To better develop critical thinking skills as expressed through public presentation and written work; 5) To develop better collaborative learning skills through work groups, seminar, and group and individual exercises; 6) To discover one's potential as an agent of change at both the individual and group level.

Winter quarter:

The focus winter quarter was on the self, particularly from a cultural and autobiographical perspective, as these experiences inform our world view. Fall quarter texts included: Newman and Newman: *Theories of Human Development;* Barbara Rogoff's *The Cultural Nature of Human Development;* Isabel Briggs Myers. *Introduction to* Type; James Baldwin's *The Fire Next Time*; Ken Wilber's *No Boundaries: Eastern and Western Approaches to Personal Growth*; Gloria Anzaldua's, *La Frontera/Borderlands,* and Marian Edelman's memoir, *Lanterns: A Memoir of Mentors.*

Spring quarter:

Spring quarter of Making Change Happen (MCH) focused on cultural groups and their development, norms, and boundaries. We will examined what defines the boundaries of a group, the norms and variation to these norms present to a group. We worked on the relationship of cultural groups to the larger society geared toward understanding the collective group's position in the world and the personal and small group interface to a target group: ability/disability; race, gender, and sexual orientation. This included the central themes of democracy, social justice, inclusivity and exclusivity that form the foundation of the program. Through our readings and films, we developed an understanding of how social movements develop, how agents of change realize their roles and move towards leadership, and how to build community towards collaboration. We discussed the role of conflict and resolution to create significant change. Students used our written assignments, our readings and films, small group discussions and whole community discussions along with individual and group assignments to establish the desired foundation of skills and knowledge. Students earned an additional four credits this term with a focus on understanding social movements, leadership, and change.

Our texts for the spring quarter included: Adams, <u>M.</u>, Blumenfeld, W.J, <u>Castaneda</u>, R., <u>Hackman</u>, H.W., <u>Peters</u>, M.L., <u>Zuniga</u>, X. (Eds.). *Readings for Diversity and Social Justice: An Anthology on Racism, Sexism, Anti-Semitism, Heterosexism, Classism, and Ableism*; Rousseau, Jean-Jacques. *The Social Contract;* Mills, Charles W. *The Racial Contract*; Pateman, Carole. *The Sexual Contract*; Russell,



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M., Beyond Ramps: Disability at the End of the Social Contract; Stevenson, Bryan. Just Mercy: A Story of Justice and Redemption.

Students completing additional four credits added the following readings: Alinsky, S. *Rules for Radicals*; Komives, S. and Wagner, W. *Leadership for a better world.*

EVALUATION:

Written by: George Freeman, Ph.D.

Zachary Young, who goes by Zach, was a member of the two-quarter program, Making Change Happen. He completed the work of the program. The work he completed demonstrated the consistent quality of his work. This was made evident in his written work, insightful thoughts on our texts, and responses to colleagues. Zach was open to the process of personal and academic transformation through the activities of the program. These transformations were demonstrated through his winter quarter autobiographical writing which was clear, concise and revealed the power of his life journey, by his responses to our texts and his colleagues in seminar, and his small group projects for both quarters. The progression of his life to the accomplished person of today was well articulated through his work. He had strong writing skills and was able to express his inner experience through effective prose.

Generally speaking his writing was well-constructed and captured the central themes of the assignments. His critiques of the texts were well-written and demonstrated his mastery of the material, personal responses to the readings, and an ability to provide effective critiques of ideas and themes in our reading. He developed a solid understanding of human development from a traditional as well as cross-cultural perspective winter quarter, as well as the intersection of identity development. He more fully understands the role of Rousseau's Social Contract as it impacts marginalized communities. He gained a better understanding of social activism, equity and social justice.

Over the course of the two quarters, Zach proved to be an excellent member of his small groups by providing consistent feedback, timely responses, and working well in collaboration. In winter quarter the group presented on their group identity through their formation at different levels of the group. Their presentation was moving and thoughtful. During spring quarter, Zach was a member of a small group addressing issues impacting the Queer community. Zach presented on the issue of Queer civil rights at the federal level including workplace, housing, education and health care. He reported on some of the gains such as marriage equality and the change in sodomy laws and he noted the conflict of state laws and the absence of Queer people as protected by Rousseau's social contract and our democracy. Their presentation was excellent.

His writing across both quarters and our discussions revealed a sensitive and aware man who used this program to deepen his experience and understanding of social justice issues of marginalized peoples. He further developed his foundational understanding of the work required to be a successful ally to members of marginalized communities. I was fortunate to see Zach across a four-year span as I was his faculty in his first year at Evergreen. He has matured into an interesting person who understands the complexities of his own personality and is able to hold, as effectively, the experience of others. It has been a delight working with Zach and I wish him the best as he pursues his Bachelor of Science degree this next year.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 16

- 6 Human Development
- 6 Social Psychology
- 4 Social Psychology and Social Justice

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Last, First Middle

A00375525 Student ID

September 2019 - December 2019: Island Ecology and Evolution

14 Credits

DESCRIPTION:

Faculty: Erik V. Thuesen, Ph.D. and Amy E. Cook, Ph.D.

Students in this junior/senior level program studied ecology and evolution through the lens of island biogeography. There was a weekly lecture series about evolutionary biology, and each student was required to give four in-class presentations and lead a seminar on an article from the primary scientific literature. Presentations were about an ecological concept, an introduced species, a specific island, and a contemporary topic related to a specific island. During the second week of the quarter, we visited Hope Island State Park in southern Puget Sound on a 4-day field trip, where we carried out a BioBlitz and conducted plant biodiversity surveys. Students uploaded their BioBlitz observations into iNaturalist. Plant biodiversity data were analyzed using two on-line biodiversity analysis tools: iNEXT and SPADE. Laboratory sessions included learning molecular techniques of DNA barcoding and examining the competitive exclusion principle using protist cultures. Students developed technical writing skills through several on-line writing assignments and peer review. Students were assessed through two take-home exams and two in-class final exams.

Textbooks used in this program:

Losos, J.B., 2015. The Princeton Guide to Evolution.

Darwin, C., 1871. Voyage of the Beagle.

Lauchman, R., 2004. Plain Language: A Handbook for Writers in the U.S. Federal Government.

McMurrey, D.A. 2002. Power Tools for Technical Communication (on-line version).

EVALUATION:

Written by: Erik V. Thuesen, Ph.D.

Zachary (Zach) had a very good quarter in this program. He participated fully and enthusiastically. Zach gave his ecological concepts lecture on Foster's rule (aka, the island rule). The lecture included very good examples. Zach gave his island presentation on Cuba and his invasive species presentation on the common myna, *Acridotheres tristis*. These presentations contained appropriate amounts of information and would have been improved by including more specific examples from the primary scientific literature. For his presentation on contemporary island issues, Zach spoke about heavy metals in soil and bioremediation on Vashon Island in Puget Sound. Zach led a seminar on the paper "Invasional meltdown potential: Facilitation between introduced plants and mammals on French Mediterranean islands" (Bourgeois, et al. 2005. *Écoscience*, 12: 248–256). After a brief introduction, he had the group break up into small groups, then later facilitated discussion by the entire class.

During the 4-day fieldtrip to Hope Island, Zach was an enthusiastic participant in all activities. He documented his BioBlitz results using iNaturalist with 24 entries. For the data analysis of the plant biodiversity surveys, Zach generated a good figure with species accumulation curves and correctly interpreted his results.

Zach had a satisfactory performance on the ecology section of an in-class practice biology GRE exam at the end of the quarter. His performance on the final in-class exam was satisfactory. He demonstrated fair breadth of ecological concepts and very good knowledge of island geography.



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Dr. Amy Cook reported the following about Zach's performance in the program:

"Over the course of the quarter Zach has developed a firm grasp of evolutionary biology in the context of islands. In his exams he showed a detailed understanding of concepts around selection, some aspects of adaptive radiation, population biology, and characteristics of island populations like insular dwarfism and reduced dispersal ability in island species. Zach was clearly comfortable navigating and interpreting phylogenetic trees including the use of the progression model to understand speciation in island chains. Zach demonstrated good critical thinking skills in evolutionary biology; making very effective use of examples to support his answers on exams and applying concepts he had learned in class to novel situations. A good example of this was his well-reasoned discussion of how the environmental conditions support reduced dispersal in the Northern saw-whet owls on islands off the coast of British Columbia. Zach has developed a solid foundation in evolutionary biology that will support advanced work in this area as well as in organismal biology and evolutionary ecology."

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 14

- *5 Island Ecology and Evolution
- *3 Island Biodiversity
- *2 Island Ecology Fieldwork
- *2 Island Ecology Seminar
- *2 Ecology Laboratory

* indicates upper-division science credit



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A00375525 Student ID

September 2018 - June 2019: Integrated Natural Science

40 Credits

DESCRIPTION:

Faculty: John Kirkpatrick, Ph.D., Nancy C. Murray, Ph.D., and Ken Tabbutt, Ph.D.

This program integrated general chemistry, physical geology, and general biology, providing a rigorous and intensive foundation in the natural sciences.

It is intended for students who are interested in pursuing more advanced coursework in biology, chemistry, and the earth sciences. This interdisciplinary program focused on transformations of matter and energy in and between living and nonliving systems. This provided students an opportunity to gain an understanding of biological, chemical, and physical earth processes on a variety of scales. Students engaged with these themes using an experimental approach to develop critical and quantitative reasoning skills.

Using the text *Biological Science*, 6th ed., by Freeman, students studied the basic tenets of evolution, mitosis and meiosis, Mendelian genetics, DNA replication, transcriptional regulation (prokaryotic and eukaryotic), translation, and biological molecules, cellular respiration, photosynthesis, cell cycle regulation, developmental biology, and cardiac and neurophysiology, plant and animal sensory systems, and ecology. In the lab, students acquired bench skills in data collection and analysis, aseptic technique, bacterial growth and antibiotics, polymerase chain reaction (PCR) and restriction digest, enzyme regulation, differential centrifugation, cardiac physiology plant growth, meiofauna exploration (tardigrades), taxonomy and sampling with transects. Students were assessed based on their performance on weekly quizzes and homework assignments, workshop sessions and laboratory notebook and reports.

Physical and environmental geology provided a foundation in the Earth Sciences. *Earth: An Introduction to Physical* Geology by Tarbuck, Lutgens and Tasa was used as a text and topics covered included plate tectonics, minerals, rock forming processes, crustal deformation and time. Data analysis using quantitative methods was integrated with theory. Two field trips to Mount St. Helens and the Washington coast examined geological features and allowed students to synthesize information and connect theory to practice.

During winter quarter the focus shifted to geologic processes and human communities; natural hazards, including volcanism, earthquakes, floods and tsunamis were examined as well as fossil fuel, mineral resources, and global climate change. Primary literature, articles from the popular press and informational videos augmented the textbook readings. Students demonstrated their understanding of the material through discussions, quizzes, and workshops. Students often worked in peer groups in order to develop collaborative skills.

Chemistry covered college-level General Chemistry, using *Chemistry: the Central Science* by Brown et al. as a foundation. Autumn quarter covered essential concepts for college-level work, including dimensional analysis, unit conversion and significant figures, & SI units; the nature of atoms, molecules, and ions; stoichiometry; solution chemistry; thermochemistry and calorimetry; and electronic structure, orbitals, and the nature of energy. The winter quarter moved beyond foundational concepts to include chemical bonding, molecular geometry, intermolecular forces, gas chemistry, properties of solutions, and kinetics. The program concluded in spring with equilibria, acid-base chemistry and solubility, thermodynamics, and an introduction to organic chemistry.

Chemistry topics were examined in lecture, through individual and group problem-solving, and through an assortment of laboratory activities including qualitative analysis, calorimetry and bond enthalpy,



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titration, spectrometry, colligative properties, gas chemistry, and assessment of unknown solutions. Evaluation of students is based on their conceptual understanding of these concepts as well as their ability to apply them to solve questions quantitatively.

Statistical analysis with Excel taught students how to import, analyze and display numeric data. Students learned descriptive statistics, histograms, skewness and kurtosis; probability (classical and relative frequency); inferential statistical test including Chi-square and t-tests; and regression analysis (linear and nonlinear).

In spring quarter, students engaged in a 2 month group research project focused on analyzing water chemistry at three local sites and the biology of microfauna at one site in Puget Sound (Bud Bay). This was a collaborative project, with student groups all working together to create and share a time series data set capturing key parameters of local watersheds over the spring season. Measurements and observations included pH, alkalinity, nutrients, suspended particulate matter, and phytoplankton microscopy. Students kept field notebooks, recorded observations, and took water and plankton samples. In the lab, students were asked to specialize in one analytical technique, learn and optimize that technique, and apply it to provide data for their own and their peers' use. Techniques for analyzing nitrate, phosphate, and alkalinity were based on EPA protocols. Student groups then analyzed data and presented their findings in short talks in front of their peers.

Scientific Communication was a spring quarter module that provided students opportunities to distill complex primary literature into understandable language for a lay audience. One project had students examining a primary literature paper and a corresponding NPR article for a general audience. Students worked in groups to examine what parts of the paper were included and excluded from the NPR article and to provide a rationale for those decisions. For the second assignment, students were asked to read a primary literature paper on ocean acidification and pH changes. They were tasked with writing an article for a non-science audience based on that paper. The third and final assignment required students to research the pros and cons of a local issue regarding an endangered species, the Mazama pocket gopher. For all three of these projects, students were required to present their findings to their peers, giving them experience presenting information in front of an audience.

EVALUATION:

Written by: Faculty: John Kirkpatrick, Ph.D., Nancy C. Murray, Ph.D., and Ken Tabbutt, Ph.D.

Zachary Young, who goes by Zach, was a positive and thoughtful member of Integrated Natural Science (INS). He made progress through the year in his understanding of the natural world as well as his ability to organize his schedule and optimize his effectiveness as a student. What follows is a review of his accomplishments.

General Biology I, II and III with Lab

Zach leaves the INS program with a very good command of the biological concepts covered this year. His quiz scores confirm this. Of note were his performances on the weekly quizzes from fall to winter and spring. Near the end of fall quarter, he figured out better ways to study and prepare and the results were striking. On many of the winter and spring quizzes, he had several perfect scores. During worksop sessions, Zach was an active participant and seemed to enjoy discussing the material with his peers. In the lab, Zach has developed good lab skills. His laboratory notebook began with pithy and disorganized entries but he accepted feedback and ultimately learned how to maintain a notebook. His current notebook bears little to no resemblance to his original one. In the spring, Zach took full advantage of the outdoor field exercises and microscopy labs. He seemed to enjoy learning and sharing the local flora and fauna in the Pacific Northwest. Overall, Zach has had a successful year of learning and is prepared for more advanced work in biology.



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General Chemistry I, II and III with Lab

Zach completed one year of general chemistry studies as part of his enrollment in INS. In short, his work was fair.

Zach's participation in class and laboratory was active and welcome, and he demonstrated curiosity for the material and a willingness to work with his peers. When engaged with the material, in and out of class, he demonstrated strong comprehension. Throughout the ups and downs of his studies, Zach did a good job of communicating with faculty about his progress. Zach's engagement in laboratory activities was another strength of his, and he worked well with a variety of lab partners. One step that could benefit future studies would be completion of all assignments with added attention to detail. In the majority of weekly quizzes, designed to show how students are keeping up with new material and its applications, Zach had mixed results that were overall satisfactory. Typically, it was apparent that Zach learned from his mistakes and was able to learn from them when given the opportunity. With a bit of review, depending on what topics he chooses to pursue, Zach will be prepared for further studies in chemistry and the sciences.

Physical Geology

Based on the results of his quizzes, problem sets and field trip workshops, Zach gained a poor understanding of the material covered this quarter. He collaborated well with others but missed several classes. Zach completed six of eight quizzes and the results indicated a lack of understanding, particularly when trying to solve quantitative problems. He completed six of the eight problem sets and his performance improved as the quarter progressed. His final scatter plot of hypocenter data was particularly well done. Zach attended both field trips and his workshops reflected the ability to synthesize information and apply his knowledge in the field.

Statistics with Excel

Zach completed all the statistics labs and demonstrated a proficiency with Excel. Based on the labs, his understanding of descriptive statistics, probability, inferential statistics and regression was good. In general, he worked diligently and only made a few mistakes. Zach also worked collaboratively, helping peers that were stuck on a problem.

Science Communication

In the science communication component of the program, Zach completed all of the assignments. The work in this portion of the program was heavily group focused, and he showed a good ability to work as part of a team. During group presentations, Zach was willing and able to stand in front of an audience and present his group's work. Zach's written contributions were also good, showing ability to synthesize information in written form. His communication style is open and engaged, showing both preparation and the ability to make eye contact and connect with an audience.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 40

- 15 General Biology with Lab I, II and III
- 16 General Chemistry with Lab I, II and III
- 5 Physical Geology
- 2 Statistics with Excel
- 2 Science Communication



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A00375525 Student ID

January 2018 - June 2018: Environmental Problem Solving

30 Credits

DESCRIPTION:

Faculty: Amy Cook, Ph.D. and Ralph Murphy, Ph.D.

The goal of this program was to provide students with an introduction to the key disciplines of the field of environmental studies including ecology, social science, research methods, statistics, and fieldwork. Midterm and final exams, seminar papers, lab/field notebooks, statistics workbook with homework problems, and field trip papers were required of all students.

Ecology. Work in ecology was supported by the textbook *Ecology* by William Bowman, Sally Hacker, and Michael Cain. Students were exposed to key ecological principles including physiological ecology, evolutionary ecology, population biology, and community and ecosystem ecology with a focus on how these principles interact with environmental issues and conservation biology. Emphasis was placed on specific topics like species interactions, life history strategies, optimal foraging, demography, feeding ecology, disturbance and succession, and nutrient cycling. These concepts were presented in lectures that tied concepts in the readings to a variety of examples in marine, freshwater, and terrestrial communities and labs that introduced students to techniques in field ecology. In late spring quarter, students were asked to apply the ecological and political concepts they learned to conservation biology, focusing on topics like reserve design, adaptive management, ecosystem services, and habitat assessment. To develop and refine their habitat assessment skills students collected data on abiotic and biotic characteristics of riparian zones, streams, and beaches in the local area and asked to describe the health of those ecosystems based on that data. Students were evaluated on their knowledge of key concepts, their ability to apply them to a variety of situations, and their critical thinking skills through a series of exams and field ecology assignments.

Social Science. The social science part of the program focused on political science and economics. In winter quarter, law, and public policy for understanding environmental policy and problem solving was emphasized. Two texts were used: The Political Science Toolbox, Frantzich and Ernst and Governing Washington, Clayton and Lovrich. Issues examined included understanding the U.S. Constitution, political federalism; fiscal federalism for understanding how we pay for environmental mitigation and restoration, a detailed examination of state level policy making with emphasis on the Washington State Legislative Session in 2018; and selected aspects of American political economic history from 1790 through the present focused on environmental law and policy-making. Several specific issues were explored in depth, including the landmark tribal fishing rights case US v. Washington State (the Boldt Decision), including the policy outcomes of the response to the court case; Timber Fish and Wildlife. which established treaty tribes as co-managers of fishery resources; shellfish aquaculture; and major environmental laws such as the Endangered Species Act. In spring guarter, we shifted focus to understanding applications of economics for environmental problems solving. Nature and the Marketplace, by Geoffrey Heal supported this work. Students worked with core micro economic principles including supply and demand, equilibrium, Pareto optimality and Pareto improvement, price elasticity of demand, discounting and present value analysis, market failures, the differences between nominal and real measures and the concept of normalizing data. Students completed comprehensive, in class midterm and final exams on this aspect of the program during both quarters.

<u>Statistics.</u> The introductory statistics component of the program focused on understanding the key concepts, formulas, and calculations used in descriptive and inferential statistics. In winter quarter, we covered 13 of the 24 chapters of the text *Statistics, Concepts and Controversies*, Moore and Notz. Topics covered included observational and experimental studies, data collection and organization, sampling methodologies, scales of data, confidence intervals, variance and standard deviation, measures of central tendency, normal distributions, and standard scores. Spring quarter emphasized inferential



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statistics including probability theory, correlation and regressions, chi square and tests of significance on numeric and categorical data and problems. Understanding variables and parameters and the significance of confounding variables in research was stressed, as were type I and type II statistical errors. Emphasis was placed on developing a strong understanding of statistics at both the conceptual and computational level for applications in science and social science. Students completed assigned homework from all chapters of the book. Homework answers were required to include complete sentence explanations of findings to ensure understanding of both the math and what the findings actually mean.

<u>Environmental Problem Solving.</u> Over the course of the program students were introduced to environmental problem-solving frameworks from several sources including *Navigating Environmental Attitudes* by Thomas A. Heberlein, *Environmental Problem-Solving: A Case Study Approach* by Isobel Heathcote, *The Influential Mind: What the Brain Reveals About Our Power to Change Others* by Tali Sharot, and *Environmental Problem Solving: A How-To Guide* by Jeffrey W. Hughes. In a series of workshops focused around case studies, students looked closely at the source of people's attitudes and values concerning environmental issues, the process through which we define problems, and what approaches work and do not work in environmental problem solving. In three field trips in spring quarter, students observed the elements of these problem-solving frameworks in the context of wastewater treatment, the production of hydroelectric power, and salmon habitat and population recovery. On a field trip to the Hood Canal Salmon Enhancement Group, students had the opportunity to learn more about stakeholder engagement through a lecture and workshop.

<u>Research Project.</u> In spring quarter, students completed a research project around a topic of their choice that was linked to some of the themes of the program. The project required a paper based on students' research in the primary and secondary literature on their topic that demonstrated the depth of their understanding and connected to concepts they were learning in class. Students presented their literature review findings with a presentation to the class complimented with PowerPoint slides. Students answered questions from the audience and faculty to demonstrate their depth of understanding of the topic.

EVALUATION:

Written by: Amy Cook, Ph.D. and Ralph Murphy, Ph.D.

Zachary (Zach) Young completed the Environmental Problem Solving Program this winter and spring quarters. Zach is a good student who achieved most of his academic goals and potential in the program.

<u>Seminar and Writing</u>. Zach was productive member of seminar discussions throughout the program. He was engaged in the readings and was willing to share his thoughts and observations in a manner that facilitated good discussions. His seminar preparation assignments were well done and his winter quarter seminar synthesis paper made some points, but overall tended to be too general and not sufficiently focused to the readings on shellfish. The paper also needed careful proofreading and refinements to writing mechanics. The winter paper covering the Washington State Legislature field trip was good in terms of substance and reflections on what he learned by attending legislative hearings. It could be improved with more attention to proof reading. The spring quarter field trip papers developed key information from the LOTT Treatment Plant, Cushman Dam and Salmon Center field trips.

Spring Quarter Research Project. Zach's spring quarter research project *Elwha River Watershed Salmon Recovery* was interesting and informative of the impacts of the dam removal experiment on the Elwha River. The paper reviewed a good literature to support his findings. The paper could be improved with a careful proofreading to correct writing issues and he needed in text citations on key points and observations. His conclusions and linkages to the program were good (but a little contradictory). Zach included an appendix with useful information, but it needed to be referenced in the text of his report. Zach's public presentation was delivered in a clear voice and was complimented with effective



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PowerPoint slides. Zach answered questions from the audience effectively demonstrating knowledge of his subject.

Ecology, Laboratory and Fieldwork and Workshops. Over the course of the program, Zach has gained a firm understanding of the central concepts of general ecology presented in the program including physiological ecology, evolutionary ecology, population biology, and community and ecosystem ecology. He was comfortable with the terminology in these fields as evidenced by his writing in assignments and on exams and demonstrated good critical thinking skills in ecology. On exams and in workshops Zach applied foundational concepts in ecology to conservation biology and demonstrated a firm grasp of topics like adaptive management and reserve design. Over the course of the program students engaged with several aspects of the quantitative side of ecology including the aggregation index, species diversity indices, creating life tables from cohort data, and reading graphs. Zach was comfortable with the calculations and data interpretation in these activities. Zach is clearly prepared to move on to do more advanced work in the field of ecology.

Zach's work in the lab and field has taught him field research techniques including the use of transects and quadrats, habitat assessment, and data collection and presentation. His lab assignments demonstrated Zach's ability to accurately collect data and present it in clear tables and graphs. He is becoming increasingly skilled at using several lines of evidence, including abiotic factors, ecosystem structure, and indicator species to assess the health of ecological communities, including riparian zones and streams, and understands the broader use of these techniques on conservation biology.

In class workshops, Zach learned about several different frameworks for approaching environmental problem solving and, from readings like *The Influential Mind* by Tali Sharot and *Navigating Environmental Attitudes* by Thomas Heberlein, some of the psychology behind people's behavior in the problem-solving process. Working in small groups, Zach applied these ideas to analyze and assess problem-solving processes around topics like trying to lower electricity consumption in Hood River, Oregon and controlling water pollution in Puget Sound. He has also learned strategies for incorporating stakeholder engagement in environmental problem solving.

<u>Social Science.</u> Zach completed good work in this part of the program. In winter quarter, he demonstrated understanding of the U.S. Constitutional framework of the structure and function of all levels of American government, American federalism (both political and fiscal), and a good understanding of the landmark tribal fishing rights case, United States v Washington State (the Boldt Decision). Zach could improve his understanding of the role grant in aid programs play in fiscal federalism. Spring quarter we shifted focus to examining applications of economics in environmental problem solving. Zach's work on economics was very good. He worked effectively with selected micro economic principles, Pareto optimality and Pareto improvement, how market failures impact environmental issues such as fisheries management and climate change. Zach also worked with discounted present value analysis, price elasticity of demand, and the differences between nominal measures, real measures and normalizing data. Overall, Zach developed a very good understanding of the social science we examined throughout the program.

<u>Statistics.</u> Zach made progress with statistics during the program. His winter midterm and final exams demonstrated a good ability with the statistics we covered, including random sampling, data collection and organization, confidence intervals, standard deviation, normal distributions and standard scores. Spring quarter was more of a challenge as we covered correlation and regression, probability theory, chi square and tests of significance on numeric and categorical data. Zach spring exams demonstrated an incomplete understanding and ability with these topics. In particular, Zach struggled with tests of significance on numeric addata. Zach attended three out of the six tutoring sessions in winter quarter, but only one of eight in spring. This impacted his ability with the spring curriculum. His homework was incomplete and therefore did not fulfill the expectations for the assignment. Overall, Zach



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developed a beginning foundation in introductory statistics and research design, but will need to continue working at the introductory level before proceeding to more advanced applications or coursework.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 30

- 4 Political Science and Environmental Policy
- 4 Applications of Micro Economics for Environmental Problem Solving
- 8 General Ecology
- 5 Field Ecology
- 3 Introduction to Descriptive Statistics
- 4 Environmental Problem-Solving
- 2 Capstone Research Project



Last, First Middle

A00375525 Student ID

September 2017 - December 2017: Salmon, Raven, and Whale: The Pacific Northwest in Art and Science

16 Credits

DESCRIPTION:

Faculty: Alexander McCarty, MiT and Amy Cook, Ph.D

Salmon, Raven, and Whale was an interdisciplinary program that focused on art and science. Common learning goals included refining students' observation skills, the practice of observational drawing, and the development of students' understanding of what was behind the things they drew from the perspective of biology, culture, and human history and their ability to write clearly about this.

Through two-dimensional drawing and design, students explored and researched the historical and contemporary perspectives of traditional and innovative Indigenous artists from the Pacific Northwest regions. Students learned about cultural appropriation, diverse visual languages, design strategies, pattern recognition, and regional traditions. Working only on paper, students created unique images guided by the principles and elements of Northwest Coast form-line and Coast Salish design. Students created a conceptual body of work that interacted with their natural history lab and fieldwork. This aspect of the program was supported by lectures and readings including *Coast Salish Design* by Shawn Peterson, *Northwest Coast Indian Art: An Analysis of Form* by Bill Holm, and excerpts from *Solitary Raven: The Selected Writings of Bill Reid* by Bill Reid.

The woodcarving portion emphasized proficiencies and demonstrations where students learned the proper, safe use of the band saw and scroll saw to shape out carving projects. Students used hand-carving tools including traditional curved and straight knives, and gouges to finish their carving projects. Students created their own concept drawings to guide their carving work. The concept design process included gathering resource images and creating full-size concept drawings for each project. Students learned how to transfer their drawings to their three-dimensional carvings.

The natural history portion of the program focused on five areas – biodiversity, distribution, adaptation, behavior, and human interactions with the environment. Within biodiversity the emphasis was on students learning taxonomy, and understanding species diversity, including the major drivers of diversity, and the ecological roles that different organisms play. Lectures on distribution covered the influence of environmental tolerances, critical habitat needs, dispersal ability, and completion on the distribution of species. We also discussed the factors that affect small-scale distribution focused on types of selection and types of adaptation with an emphasis on functional morphology. In labs students observed and drew specimens of Pacific Northwest birds and fishes and were asked to make connections between morphology and the ecology of species including where they live, how they feed, and locomotor (swimming and flying) performance. Lectures on animal behavior covered categories of description that behaviorists use (empirical description, consequences, spatial relation), proximate and ultimate causes of behavior, and how behavior is studied, particularly in the field.

In addition to the concepts in natural history discussed above, labs also gave students the opportunity to learn how to lay out transects, collect fishes and stream macroinvertebrates, and identify Pacific Northwest birds, fishes, and plants. Through drawing specimens in lab, students practiced scientific illustration skills and learned to refine their observation skills.

On exams and in other assignments, students were asked to make connections between what they were learning and human interactions with the natural world including the ways that human activities effect organisms and landscapes, cultural, societal, and political perspectives on particular animals. This aspect of the program was supported by lectures and readings including *Mind of the Raven* by Bernd Heinrich



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and excerpts from *In the Company of Crows and Ravens* by John Marzluff and Tony Angell and *Of Orcas and Men* by David Neiwert and a reading from *First Fish, First People* (edited by Judith Roche and Meg McHutchison) by Sandra Osawa, describing the history of Indigenous fishing rights in Washington State.

EVALUATION:

Written by: Amy Cook, Ph.D. and Alex McCarty, MiT

Zach (Zachary) demonstrated a good understanding of the ideas and concepts presented in class and took full advantage of the learning opportunities presented in the program. He attended class regularly and earned full credit.

Over the course of the program, Zach has gained a better understanding of the central concepts of natural history presented in the program including diversity, adaptation, distribution, and behavior. He demonstrated a good grasp of taxonomy and ecological diversity including the factors that influence species diversity and quantitative measurement of diversity in communities. It was clear that Zach understood the relationship between form and function in feeding and locomotion in both birds and fishes. He made connections between characteristics like physiological tolerances, behavior and critical habitat components and the distribution of plants and animals on the scale of an individual's local distribution or home range. Within animal behavior, Zach showed a fairly good understanding of the key concepts and terminology of the discipline but definitely developed a more detailed understanding of the behaviors of select species like ravens and orcas. On exams, Zach provided detailed discussions of human interactions with the environment from an ecological, cultural, and political perspective.

Zach's work in the lab and field has taught him basic field research techniques including the use of transects and quadrats, the collection of fishes and invertebrates, and the identification of Pacific Northwest trees, fishes, birds, and aquatic macroinvertebrates. He demonstrated close observation skills in his lab assignments in the form of sketches of individual specimens he observed and notes on those observations. Zach is developing good scientific illustration skills and practices including the importance of indicating scale on his drawings, effectively and accurately representing both overall shape and details of the organisms that he drew, good use of shading to show three-dimensionality, and accurately showing the coloration of invertebrates using watercolors.

For the 2D design portion of the program, Zach's Indigenous 3D Arts faculty Alex McCarty wrote the following: "In 2D design, Zach did fine. He demonstrated very good skills in all of the techniques and learning objectives covered. A notable strength was his ability to utilize Coast Salish design in order to create visually striking images. Zach was very communicative with faculty and never hesitated to ask questions. He successfully completed six well-crafted images for his portfolio that he submitted at the end of the quarter. Pacific Northwest Indigenous art was a primary focus in the program and Zach demonstrated an emerging understanding of both Northwest Coast form-line and Coast Salish design elements in his work."

For the woodcarving portion of the program, Zach's Indigenous 3D Arts faculty Alex McCarty wrote the following: "In woodcarving Zach did great. He had excellent attendance and was always ready to work. His focus on his work was exemplary and provided a strong model of collaborative use of a community studio. Zach was highly self-directed, set to work quickly, and always helped with the community cleanup at the end of each class. A notable strength was Zach's ability to follow through with project responsibilities and schedule enough time to complete his assignments. Zach was a pleasure to work with."

Zach was an engaged participant in seminar discussions. In his weekly seminar pass assignments, he developed good, substantial questions around excerpts from the reading that he found compelling. These questions contributed to substantive discussions of the text and Zach participated regularly in these



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small-group discussions. It was clear from both his seminar assignments and his comments that Zach was reading and comprehending the seminar texts at an analytical level and making compelling connections among the readings. He only needs to work on effectively and clearly expressing his ideas in discussions.

In this program, Zach has consistently exhibited an enthusiasm for learning the central ideas of natural history, 2D and 3D design, and human history and has brought together these disciplines into a deeper understanding of the Pacific Northwest from a number of different perspectives. His performance in the program reveals him as a critical thinker with the ability to pull together ideas from a wide variety of sources.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 16

- 4 Natural History of the Pacific Northwest
- 4 Introduction to Ecology and Evolutionary Biology
- 4 Introduction to Pacific Northwest Native Design
- 4 Introduction to Pacific Northwest Native Woodcarving



Young, Zachary G

Last, First Middle

A00375525 Student ID

Student Self Evaluation for Salmon, Raven, and Whale: The Pacific Northwest in Art and Science 09/2017 - 12/2017

This quarter has challenged me in ways that I have not expected it to. Coming into this program as a sophomore with a head of steam I thought I knew what to expect, well I do, to a degree but there are always new aspects to learn and my past experiences mean that I can not been challenged in ways I have not thought of. There is always more to learn and one cannot expect to know what is around every corner.

There has not been a lab, workshop or seminar that I have missed, but one day of open shop (unless I have forgotten to sign in). I have completed every assignment expect the reflection on the evergreen gallery, I will also say that I have misplaced two seminar passes and the mid quarter reflection checklist. I have done what is asked and not much more and this is what has challenged me. There is this delusion that was/is in my head that everything was going to be layed out nice and neat out in front of me and all I had to do was navigate the channels and boom I am fulfilled. This is partly true, this program has laid out what is expected, the work was clear and the faculty was open to help as much as possible. What I am trying to get at is that I need to shift to challenge my own capabilities and privilege.

I am coming to is the understanding that I need to unpack my expectations, and set up clear goals for myself and use school as a platform to achieve these goals. Organization, time management. Artistic skill, understanding the natural world around me, all of these are important to me to improve myself for both the short and the long term. I have touched a bit on all of those practices but not given them more then a thought or glance. To really get where to a new level of understanding I need to unpack norms that have been engraved in me. George Freeman, a faculty of mine last year posed a choice to me, do I want to be a good student, or do I want to be a scholar? I choose scholar.



Last, First Middle

A00375525 Student ID

September 2016 - June 2017: Ecological Niche: The Interface of Human and Animal Behavior

46 Credits

DESCRIPTION:

Faculty: George Freeman, Ph.D. and Alison Styring, Ph.D.

The word environment encompasses multiple meanings, from the natural to the built, from the interiors of our minds to the spiritual. In each case there is a constant interface of environments with one another and with other creatures, each defining and circumscribing our experience of the world. Some of our essential questions revolve around how we define the environment and how we are shaped by as well as how we shape the environment, both natural and built. For example, does the concept of wilderness include humans? Is the ecological niche of a human essentially different from that of other living things? We explored the habitats we occupy along with other creatures in those environments. We explored dichotomies that foster dynamic tensions, such as the dichotomy between concepts of "natural" versus "human." We investigated these tensions through our study of psychology, personal biography, biology, environmental studies, ornithology and cultural studies.

In fall quarter we developed the foundational skills in environmental studies and psychology needed to understand and critique the writings and current research in predictive ecology, animal behavior and conservation biology, and to examine the concept of the Self and the theories of perception and cognition in psychology. We examined linkages among disciplines in terms of methods, assumptions and prevailing theories. To build our learning community we used experiential collaboration activities such as Challenge and Experiential Education as a means to develop a sense of commitment and group citizenship. We used multicultural discussion opportunities to explore the politics of identity and meaning. Students explored our content through the production of art projects, lectures and workshops. We developed our observational skills via field mandala assignment, ecology labs, workshops and field trips. Students explored developmental theory through the lens of Piaget, ethology, brain development, and intelligence using workshops, lectures and readings.

During winter guarter students developed a stronger understanding of their personal relationship to nature through continued work in ecology. Our field and lab work in ecology focused on research methodologies and quantitative reasoning. Students completed two bird labs, three soundscape labs, a macroinvertebrate lab and an epiphyte lab. In each they worked with concepts of diversity and calculations of means and standard deviations. Labs introduced students to skills in field ecology and data collection and management as well as promoting skills in collaboration and working across significant differences. Students continued developing their skills in field journaling through weekly observations of and writing about the natural world. In psychology students constructed a similar foundation in the social sciences by reviewing current research literature, data collection and analysis. Each student worked alone or in a small group to complete collaborative projects across both areas of study. Our reading and writing for the quarter continued to focus on exploring themes of our readings along with appropriate citations towards the development of their own claims and effective analyses of the claims made in our texts. Students completed a literature review based on a topic of their choice. They established foundational skills in using library research data bases, online resources and an increased familiarity with the peer-reviewed literature for their project. Each student participated in a community service opportunity for a total of five hours per week. Students new to the program completed fall guarter's community scan. Students not completing a community service component opted for an alternative activity. Students continued to explore their studies in ecology and psychology and further developed their skills in collaboration through the completion of a group-based art project integrating nature and developmental theory.



Young, Zachary G

Last, First Middle

A00375525

Student ID

In spring quarter students implemented the knowledge gained from the prior quarters through specific student-directed projects and our field work and field trips. The program content continued our study of ecology and includes greater depth in ornithology, personality theory and abnormal psychology. The faculty fostered an environment of creativity, experimentation, and imaginative processes as means of discovering and bringing a new awareness to this extraordinary world. Students were expected to craft a stronger understanding of self-directed work, internalizing the standards required of high-performing students, academic excellence and content mastery. Students selected projects and/or community service opportunities to advance their specific academic goals. The students continued further development of our program themes the themes through individual and collaborative projects.

Students came to a stronger understanding of their personal lives as situated in a variety of contexts. Through the use of autobiography and memoir they explored experiences that gave meaning to their understanding of the environment. They developed strategies for engaging in a stronger sense of the learning community towards the goals of in-depth personal development, increased self-awareness, critical commentary and analyses, and practices that promote stewardship of our personal lives, our immediate environment and global communities. They came to a more complete understanding of promoting community engagement and service as well as establishing an understanding of group process and their personal role in environmental activism. Student developed a stronger understanding of the five foci of The Evergreen State College and moving that understanding from theory to practice. They developed a broad area of interest in ecology and psychology as well as having the opportunity to explore in-depth areas of interest. They moved towards a stronger sense of political engagement in diverse communities and an understanding of their personal responsibility to support movement and change towards greater equity and diversity for a better environment.

Readings included:

Fall:

Mind of the Raven: Investigations and Adventures with Wolf-Birds; Self-theories, Carol S. Dweck; The Bonobo and the Atheist, Frans de Waal; The Forest Unseen, David George Haskell; The Shallows: What

the Internet is doing to our brains, Nicholas Carr; *The Transition to College Writing*, 2nd edition, Keith Hjortshoj; *The Web of Life*, Fritjof Capra.

Winter:

Refuge by Terry Tempest Williams; The natural history of Puget Sound country by Arthur R. Kruckeberg; Presentation Zen by Garr Reynolds; The Norton Psychology Reader by Gary Marcus; Gardens in the Dunes by Leslie Marmon Silko; Unbowed: One Woman's Story by Wangari Maathai; No Boundary by Ken Wilber; Field Guide to the Birds of Western North America, David Sibley, Christopher Helm (optional fall quarter).

Spring:

The Colors of Nature by Alison Hawthorne Demming; The Art of Racing in the Rain by Garth Stein; Silent Spring by Rachel Carson; The Sibley Guide by David A. Sibley; The Power of Place by Winifred Gallagher; Desert Solitaire by Edward Abbey; Blessed Unrest by Paul Hawken; Natural History of Puget

Sound Country, Art Kruckeberg; *Psychopathology: A contemporary Understanding*, 4th Edition. James Maddux and Barbara Winstead; *Leadership for a Better World* by Susan Komives and Wendy Wagner.

Selections from other texts:

Theories of Developmental Psychology, Patricia Miller; Ornithology, Frank B Gill.

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Last, First Middle

EVALUATION:

Written by: Alison Styring, Ph.D. and George Freeman, Ph.D.

Mr. Zachary Young completed most of the required work over the course of this academic year including: individual and group assignments; the fall quarter autobiography series; his field journal compiling a minimum of 60 hours of observation, including field trips, the field mandalas and the ecology labs; the weekly posts on our seminar readings; three art projects for fall quarter; and the community scan in preparation for the winter quarter community service project. For winter and spring quarter he continued making progress in all areas of his work completing all labs, field journal entries, seminar responses and two of the three reflections on the Rachel Carson Forum and the Indigenous Climate Justice Symposium. He generally completed his work in a timely manner and provided good to exceptional quality for every assignment. His collaboration in groups was excellent as he supported the work of the group. He made strong relationships in the learning community and provided excellent support to others. He monitored his participation towards greater parity and equity of voices and used his well developed leadership skills. He was well liked by his community members. He did a great job balancing the needs of his community while focusing on his personal and academic growth.

Zachary demonstrated marked improvement skills in reading, writing and critical analysis. He effectively tackled tough intellectual and academic themes. As the year progressed he improved his ability to develop specific claims and support those claims using our texts. Zachary's critical-thinking skills are well developed from an excellent foundation based on his participation in seminar, discussions and the quality of his personal reflections.

Zachary developed the necessary foundation to engage in field ecology. His nature journal entries clearly conveyed Zachary's emerging skills in nature observation, species identification and interactions in the natural environment. His ecology labs supported his growing understanding of the study of ecology, environmental racism, natural resources, and natural history. He developed greater depth and breadth in his understanding of ecological research including field methods, basic quantitative skills and scientific writing. Zachary developed a foundation in developmental theory and psychopathology, the workings of the brain, and systems theory. He deepened his understanding of research methods and quantitative reasoning in the social sciences. His psychology assessment demonstrated a good understanding of etiology, symptomology and treatment of various disorders. Zachary completed 100 hours of community service with The Hands On Children's Museum in downtown Olympia.

Zachary is a leader of our community. He provides the proper amount of support to his colleagues and developed his personal strengths in leading and conceptualizing the group process. His writing and thinking is exceptional in terms of abstract thinking and integration. We believe his overall work represents his accepting the challenge while still finding the avenue to support his personal life. Zachary personifies, in some ways, the ideal Evergreen student. He takes that which he deems as important and essential and develops his interests and work based on this primary motivation. He is bright, motivated, inquisitive and open to new experiences. His quick and sharp intellect allows him to develop beyond the ordinary towards the extraordinary. Overall this was a successful year and we look forward to being a part of his journey.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 46

- 6 Introduction to Field Ecology and the Nature Journal
- 4 Introduction to Research and Quantitative Methods in Field Ecology
- 4 Ecology
- 6 Introduction to Developmental Psychology-Piaget, Systems Theory, Ethology and Intelligence
- 4 Introduction to Essential Psychopathology

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A00375525 Student ID



FACULTY EVALUATION OF STUDENT ACHIEVEMENT

The Evergreen State College - Olympia, Washington 98505

Young, Zachary G Last, First Middle A00375525 Student ID

- 4 The Self and Nature: Autobiographical writing
- 8 Composition: Environmental Memoir and Social Justice
- 4 Independent Literature Review: Orca Conservation: Issues and Solutions
- 6 Community service: Hands on Children's Museum

EVER GREEN

The Evergreen State College • Olympia, WA 98505 • www.evergreen.edu

EVERGREEN TRANSCRIPT GUIDE

Accreditation: The Evergreen State College is fully accredited by the Northwest Commission on Colleges and Universities.

Degrees Awarded: The Evergreen State College awards the following degrees: Bachelor of Arts, Bachelor of Science, Master of Environmental Studies, Master of Public Administration and Master In Teaching. Degree awards are listed on the Record of Academic Achievement.

Educational Philosophy:

Our curriculum places high value on these modes of learning and teaching objectives:

- Interdisciplinary Learning
- Collaborative Learning
- Learning Across Significant Differences
- Personal Engagement
- Linking Theory with Practical Applications

Our expectations of Evergreen Graduates are that during their time at Evergreen they will:

- Articulate and assume responsibility for their own work
- Participate collaboratively and responsibly in our diverse society
- Communicate creatively and effectively
- Demonstrate integrative, independent, critical thinking
- Apply qualitative, quantitative and creative modes of inquiry appropriately to practical and theoretical problems across disciplines, and,
- As a culmination of their education, demonstrate depth, breadth and synthesis of learning and the ability to reflect on the personal and social significance of that learning.

Our students have the opportunity to participate in frequent, mutual evaluation of academic programs, faculty and students. In collaboration with faculty and advisors, students develop individual academic concentrations.

Academic Program

Modes of Learning: Evergreen's curriculum is primarily team-taught and interdisciplinary. Students may choose from among several modes of study:

- Programs: Faculty members from different disciplines work together with students on a unifying question or theme. Programs may be up to three quarters long.
 Individual Learning Contract: Working closely with a faculty member, a student may design a one-quarter-long, full-time or part-time research or creative project. The contract document outlines both the activities of the contract and the criteria for evaluation. Most students are at upper division standing.
- Internship Learning Contract: Internships provide opportunities for students to link theory and practice in areas related to their interests. These full- or part-time opportunities involve close supervision by a field supervisor and a faculty sponsor.
- Courses: Courses are 2-6 credit offerings centered on a specific theme or discipline.

The numerical and alpha characters listed as Course Reference Numbers designate modes of learning and are in a random order.

Evaluation and Credit Award:

Our transcript consists of narrative evaluations. Narrative evaluations tell a rich and detailed story of the multiple facets involved in a student's academic work. A close reading of the narratives and attention to the course equivalencies will provide extensive information about student's abilities and experiences. Students are not awarded credit for work considered not passing. Evergreen will not translate our narrative transcript into letter or numeric grades.

Transcript Structure and Contents: The Record of Academic Achievement summarizes credit awarded, expressed in quarter credit hours. Transcript materials are presented in inverse chronological order so that the most recent evaluation(s) appears first.

Credit is recorded by:

Quarter Credit Hours:	Fall 1979 to present
Evergreen Units:	1 Evergreen Unit (1971 through Summer 1973) equals 5 quarter credit hours
	1 Evergreen Unit (Fall 1973 through Summer 1979) equals 4 guarter credit hou

Each academic entry in the transcript is accompanied by (unless noted otherwise):

- The Program Description, Individual Contract or Internship Contract which explains learning objectives, activities and content of the program, course or contract.
- The Faculty Evaluation of Student Achievement provides information on specific work the student completed and about how well the student performed in the program
 or contract.

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- The Student's Own Evaluation of Personal Achievement is a reflective document written by the student evaluating his or her learning experiences. Students are
 encouraged but not required to include these documents in their official transcript, unless specified by faculty.
- The Student's Summative Self Evaluation is an optional evaluation summarizing a student's education and may be included as a separate document or as a part of the student's final self- evaluation.

Transfer credit for Evergreen programs, courses and individual study should be awarded based upon a careful review of the transcript document including the course equivalencies which are designed to make it easier for others to clearly interpret our interdisciplinary curriculum. These course equivalencies can be found at the conclusion of each of the Faculty Evaluation of Student Achievement.

The college academic calendar consists of four-eleven week quarters. Refer to the college website (www.evergreen.edu) for specific dates.

This record is authentic and official when the Record of Academic Achievement page is marked and dated with the school seal.

All information contained herein is confidential and its release is governed by the Family Educational Rights and Privacy Act of 1974 as amended.

If, after a thorough review of this transcript, you still have questions, please contact Registration and Records: (360) 867-6180.