RECORD OF ACADEMIC ACHIEVEMENT

The Evergreen State College - Olympia, Washington 98505

OFFICIAL TRANSCRIPT DOCUMENT

Engstrom, Megan T — A00426877

Last, First Middle — Student ID

DEGREES CONFERRED:

Bachelor of Science — Awarded 16 Jun 2023

TRANSFER CREDIT:

Start	End	Credits	Title
09/2018	06/2020	55	**Tacoma Community College**
09/2018	06/2020	3	**Tacoma Community College**

EVERGREEN UNDERGRADUATE CREDIT:

Start	End	Credits	Title
09/2020	03/2021	32	**Shaped by the Sea, Shaped by the Hand: Marine Biology and 3D Art** *10 - Marine Biology* *10 - 3D Art and Fine Metalsmithing* *2 - Interdisciplinary Seminar* *6 - Interdisciplinary Independent Project* *4 - Independent Creative Research Project*
03/2021	06/2021	16	**Existentialism in Literature and Philosophy** *16 - Existential Literature and Thought*
09/2021	12/2021	16	**Anthrozoology** *4 - Animal Behavior and Cognition (Certificate Sequence)* *4 - Anthrozoology (Certificate Sequence)* *4 - Animal Welfare Science (Certificate Sequence)* *4 - Animal Ethics (Certificate Sequence)*
01/2022	03/2022	16	**Biology and Climate Change in the Pacific Northwest** *6 - General Biology: Ecology and Evolutionary Biology with Lab* *2 - General Biology: Animal and Plant Physiology* *3 - Linguistics: Language and Culture* *3 - Quantitative Reasoning in Biology* *2 - Final Project: Billy Frank Jr. Nisqually National Wildlife Refuge*
03/2022	06/2022	12	**Cultivating Justice: Food, Feminism, and Community Psychology** *2 - Sociology of Food Justice* *2 - Feminist Psychology* *8 - Community-Based Learning: Organic Farm & Home Garden*
03/2022	06/2022	4	**Abnormal Psychology (B)** *4 - Psychology*
09/2022	12/2022	16	**Temperate Rainforest Biogeochemistry and Ecophysiology** **6 - Forest Ecology* **6 - Biogeochemistry* **4 - Remote Sensing and GIS: Geographic Information Systems*
09/2022	12/2022	4	**Ceramics: Handbuilding** *4 - Introductory Ceramics*
01/2023	03/2023	2	**Chemistry Laboratory Skills: Post-Pandemic Hands-On Learning** *2 - Chemistry Laboratory*

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

EVERGREEN UNDERGRADUATE CREDIT:

Start	End	Credits	Title
04/2023	06/2023	32	**Marine Biodiversity** **5 - Marine Invertebrate Zoology* **5 - Marine Biodiversity* **5 - Marine Invertebrate Zoology Laboratory* **3 - Marine Biodiversity Laboratory* **2 - Marine Biodiversity Field Work* **2 - Microscopy* **2 - Marine Biodiversity Seminar* **8 - Marine Biodiversity Research*
04/2023	06/2023	4	**Statistics I** *4 - Statistics*

Cumulative

212 Total Undergraduate Credits Earned

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

In the course of three years of education at Evergreen I have gained experience in a broad range of skills and topics that I will utilize for years to come. During this time I gained valuable technical experience in various fields of science, improved upon my ability to communicate and present, connect to the community, and create a self-directed marine biology related research project. My academic journey started after I transferred from Tacoma Community College studying general academics for one year including a marine biology class which sparked my interest in learning more about marine sciences and conservation.

Evergreen's self-directed learning was the motivation for attending this institution and continuing for my Bachelors in Science degree. The ability to create a learning plan catered to my interests in the sciences field made it an easy decision to enroll. I have an interest in natural sciences especially pertaining to ecology and zoology and was drawn to the various classes surrounding those topics. The first class I took was in Fall 2020: a marine biology focused class called *Shaped by the Sea, Shaped by the Hand*. In this class I gained knowledge in major marine phyla and ocean systems while also practicing marine field work techniques. I constructed my own plankton net to use at Boston Harbor to capture plankton to observe, and created a secchi disk to test water visibility. In the second quarter of the class I wrote an independent research paper on Orca tooth wear patterns in pods that primarily consume sharks. This research paper gave me experience in writing in a scientific format that would aid me throughout the rest of my education and direct me in what classes I wished to take in the future.

Branching out to another field I joined the animal ethics class *Anthrozoology*. This class gave me experience in the study of how humans interact with animals. I learned to view human-animal interactions through various cultural and ethical lenses and participated in a global animal welfare assessment contest hosted by the American Veterinary Medical Association. This contest was based on evaluation of different scenarios involving animals and the assessment of their quality of life. Participating in this contest gave me valuable skills in public speaking as well as the ability to effectively and accurately present information to a group within a given timeframe.

I sought to learn more about terrestrial environments especially in the area I reside. *Climate Change in the Pacific Northwest* taught me about the effects of climate change within the Pacific Northwest and how it impacts the ecosystem. Here I also learned how to measure tree height and circumference through various methods. I improved upon these tree measuring skills in my *Temperate Rainforest* class where I also learned how to calculate tree biomass and conduct CO2 respiration tests with soda lime and with an IRGA machine. This class taught me about the importance of old growth forests for carbon sequestration as well as environmental policies regarding the logging industry. This gave me insight into environmental policy that continued to increase my interest in conservation work.

I continued my education in marine biology with my *Marine Biodiversity* class. The interest in marine life and their environment had drawn me to continue studying these topics, with experience from previous classes helped me to succeed in this class. The first quarter included memorizing all marine phyla as well as species taxonomy of marine animals in the Pacific Northwest. I conducted various dissections of local organisms to observe and understand the anatomy of different phyla and collected specimens from various areas including Friday Harbor to observe in the aquaria lab. The second portion of the class included creating an independently directed research project involving the use of Scanning Electron and Z-stacker microscopy for imaging. For this project I conducted a survey of *Neotrypaea californiensis* on Evergreen beach and the symbionts that inhabit it. Conducting a research project independently of faculty gave me insight on survey techniques as well as constructing a professional scientific paper. This opportunity gave me the ability to visualize what my future career goals may look like with my science degree.

This last quarter at Evergreen has cemented my interest in field work and affirmed my goals to continue my education and pursue a Master's degree relating to conservation and ecology. The knowledge I have gained from my undergraduate education has been the guidance I needed to understand what future I wish to create for myself.

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

April 2023 - June 2023: Statistics I

4 Credits

DESCRIPTION:
Faculty: Alvin Josephy, MES

Students in Statistics One learned the basics of descriptive and inferential statistics. Statistical concepts covered in depth included central tendency, variance, spread and shape of distributions; other concepts included the normal distribution, standardizing scores, correlation, regression, experimental design, confidence intervals, and hypothesis testing. Understanding of these concepts was reinforced and evaluated through four Excel labs, homework assignments, midterm and final exams, and individual presentations by students of popular media articles that utilized statistics. In addition, students chose a study that was of interest to them and presented it in class to the group. This was augmented by a written discussion of the same study. The combination of these exercises was ultimately intended to provide students with an appreciation of the use of data in making informed decisions in the real world.

EVALUATION:
Written by: Alvin Josephy, MES

Megan Engstrom, who goes by Fauna Engstrom, completed the requirements of this introductory statistics course, doing consistently very good work. Her work on the class exams was well done, with a perfect score on the final exam. She was a strong participant in this class and contributed regularly to the in-class discussions. Her homework and labs were all done very clearly and completely. Fauna presented an article from the *Science News* “Microplastics are in our bodies. Here’s why we don’t know the health risks” that, in Fauna's words, described a survey that was conducted in order to test the amount of microplastics in healthy adults to gauge just how much microplastics the average person consumes and how much stays in the bloodstream. This article describes a study conducted in the Netherlands in which 22 healthy adult volunteers gave two blood samples to be tested for microplastics. The article was intended to highlight and summarize studies to bring attention to the described and the effects of microplastics and nanoplastics in our world. For her assignment, Analyzing a Study, Fauna chose a study conducted by the Humane Society of the U.S. to gather a more accurate estimate of total dog and cat pet ownership in households in the United States using different data from AMVA and APPMA surveys conducted in different ways (Internet, Random Digit Dial, Household Panel, etc.). As evidenced by her great work in this class, Fauna is well prepared to do more advanced work in statistics.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 4

4 - Statistics

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

January 2023 - June 2023: Marine Biodiversity

32 Credits

DESCRIPTION:
Faculty: Erik V. Thuesen, Ph.D. and Pauline C. Yu, Ph.D.

This program consisted of an immersive survey of marine biodiversity, focusing primarily on invertebrate zoology, and secondarily on marine vertebrates, algae, and microorganisms. Learning modes included lectures, laboratory sessions, seminars and field trips with field observation and sampling. Lectures and labs covered all the major phyla (and most minor phyla) of invertebrates, their evolutionary and taxonomic relationships, anatomical features and local representative species. Additional lectures covered coral reef and estuarine ecology, comparative larval biology and zooplankton ecology. Students were assessed on the basis of 2 quizzes, 1 in-class midterm, a lab practicum, a take-home written final exam in winter and an oral final exam in spring. Students were also assessed on the basis of a laboratory notebook of illustrations of live and preserved, intact and dissected specimens of most of the invertebrate phyla, macro algae, bacterial cultures, and observations of live marine vertebrates. The field trips included field observations of rocky intertidal and muddy intertidal temperate marine habitats, qualitative sampling of benthic marine sediments and quantitative sampling for biodiversity.

Instruction in microscopy techniques and hands-on training were included with the aims of students learning microscopy theory and being proficient for unsupervised operation in basic compound light microscopy, stereomicroscopy with a digital z-stacker (automontage) capability, and scanning electron microscopy. Students were assessed for their microscopy knowledge on the basis of a take-home exam, an online quiz, and practicum examination on the instruments.

In spring seminar, students were each required to select and present a peer-reviewed scientific paper relevant to their research topic. Students were required to present a slideshow before their peers, lead discussion and answer questions from peers regarding the paper they selected.

For training in experimental design and scientific writing, students designed and wrote scientific proposals in small groups. They were required to demonstrate understanding of the scientific literature, appropriate citation and bibliography formatting, proposal time management and budgeting. Proposals were peer-reviewed in a mock National Science Foundation panel as part of the proposal review and revision process. Once proposals were revised and vetted, students carried out their research projects in the South Puget Sound region, Hood Canal and Pacific Coast as needed. In their formal presentations of their research, students were required as a group to produce a poster of their research results incorporating two types of microscopy imaging, and to individually write a scientific paper summarizing their research findings. The scientific paper was evaluated on the basis of proper paper formatting and citation, appropriate data analyses, and technical writing.

Textbooks:

Brusca, Giribet and Moore. 2022. *Invertebrates* (4th ed). Oxford University Press.

Kozloff, E. (1996). *Marine Invertebrates of the Pacific Northwest*, University of Washington Press

Nybakken, J. (1995). *Diversity of the Invertebrates: A Laboratory Manual, Pacific Coast version,* McGraw-Hill

EVALUATION:
Written by: Pauline C. Yu, Ph.D.

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

Fauna (Megan) has met with exemplary distinction the requirements of this program. Fauna's attendance record was perfect. Fauna's participation in program service activities was active. Fauna's engagement in learning was consistent and strong, and Fauna's engagement in helping classmates with learning was consistent and strong.

Fauna demonstrated an overall strong understanding of the presented concepts in marine science. Fauna demonstrated overall strong understanding on the midterm exam, 2 quizzes, the take home final exam in winter quarter and the oral final exam in spring quarter. Fauna was successful in 4 rounds of the Invertebrate Spelling Bee. Fauna demonstrated strong breadth and strong depth of knowledge on the lab practical exam. Fauna completed all notebook observations assignments, and demonstrated a consistently strong ability to observe and describe marine organism anatomy and morphology through maintaining the observations notebook. Fauna's annotation and documentation of organism taxonomy and collection info was consistent and thorough identification source, though the identification sources were not as consistently present, due to a misunderstanding of the requirement.

During the fieldtrips (Evergreen Beach, Friday Harbor Labs, Point Defiance Zoo and Aquarium, Olympic Peninsula) Fauna participated in all the activities and Fauna's engagement in exploratory observation was strong. Fauna consistently took full advantage of the field opportunities to include field observations and measurements in the notebook.

Fauna demonstrated an overall strong understanding of the presented concepts in microscopy as demonstrated on the microscopy take home exam and completed certification for use of the Z-stacker and scanning electron microscopy equipment.

In spring quarter seminar, Fauna did an excellent job of presenting a self-selected paper; the presentation made very good use of visuals, and demonstrated excellent understanding of the paper. Fauna did an excellent job of answering questions from peers and faculty. Throughout the quarter, Fauna was actively engaged in asking questions during the paper discussions.

Fauna participated in a group proposal project researching, and writing on the group-selected topic of "Survey of Orthione griffenis parasite prevalence in Neotrypaea californiensis in Budd inlet" [sic]. The draft bibliography was complete, demonstrated a well-developed understanding of information sourcing, and made strong use of primary source material. The proposal did a solid job of summarizing background research, articulating methods and experimental design, developing a mostly complete budget and timeline, and using mostly proper citation formatting; the only flaw in the paper was a misattribution of the species of parasite. Fauna did a strong job of presenting and critiquing other group projects in the mock panel review exercise. After revision, Fauna did an excellent job of carrying out the research project with regards to taking leadership, data collection, active collaboration with classmates, and consulting with staff and faculty about problem-solving and analysis. For the group poster presentation, the group produced an excellent poster that communicated the research findings, included two kinds of microscopy, and was completed in a timely fashion for the presentation. At the poster presentation, Fauna was a very good communicator with regards to answering questions about and explaining the presentation.

For the individual writing portion of the research project, Fauna's paper, entitled "Survey of host *Neotrypaea californiensis* and the symbionts that inhabit it" was an excellent summary of the research project, including mostly properly formatted scientific nomenclature, data analysis and statistics, and a discussion section that indicated understanding of the findings of the research project and the context of findings within the literature. The paper needed some final polishing with regards to optimizing data organization in a scatterplot, and proofreading the format of in-text and bibliography citations, along with alphabetizing and correcting inconsistencies of bibliography formats. Fauna's writing skills are excellent:

this paper demonstrated Fauna's full grasp of scientific writing style and analytical skills integrating data with the existing literature.

Fauna was a valued member of the learning community, demonstrated high quality work in this program, and demonstrated readiness to pursue advanced work in the sciences, including at the graduate level.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 32

*5 - Marine Invertebrate Zoology
*5 - Marine Biodiversity
*5 - Marine Invertebrate Zoology Laboratory
*3 - Marine Biodiversity Laboratory
*2 - Marine Biodiversity Field Work
*2 - Microscopy
*2 - Marine Biodiversity Seminar
*8 - Marine Biodiversity Research

* indicates upper-division science credit

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

January 2023 - March 2023: Chemistry Laboratory Skills: Post-Pandemic Hands-On Learning

2 Credits

DESCRIPTION:
Faculty: John B. Kirkpatrick, Ph.D.

This was a hands-on laboratory course. The focus was on learning and improving on bench skills, which many courses during the pandemic were unable to practice. Students practiced skills needed to be proficient in a modern chemistry laboratory, with some overlap with biology. This included lab safety, accurately measuring volume and mass, preparation of materials, making solutions, pipetting, and titration. The focus of the class was on practicing practical skills, so that students will be better prepared to achieve good results in future settings when aiming to accomplish tasks with high precision and / or accuracy. At the end of the course, students were prepared for further college level studies involving chemistry skills.

EVALUATION:
Written by: John B. Kirkpatrick, Ph.D.

Megan, who goes by Fauna, completed Chemistry Laboratory Skills, and in short submitted good work. Fauna had strong participation when in lab, and submitted all of the lab write-ups. Fauna showed interest in laboratory processes and a desire to figure things out. Fauna's future work could be improved by adding some detail to notes and calculations. In our interactions, Fauna clearly showed an ability to grasp chemistry skills. Overall, Fauna did well in lab and demonstrated potential for future work. It was a pleasure to have Fauna in lab.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 2

2 - Chemistry Laboratory

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

September 2022 - December 2022: Ceramics: Handbuilding

4 Credits

DESCRIPTION:
Faculty: Bruce A. Thompson

Students gained an overview of ceramic studio practices. They learned a variety of hand-built ceramic techniques beginning with traditional methods and moving toward current ceramic technologies. We emphasized functional pottery with technical demonstrations based on utility. Through their thematic projects, students began to develop an informed and personal style and gained solid foundation skills in both functional and sculptural work. Students received critical analysis of their resulting work through written observations and through group discussions. The course introduced students to clay types, kiln firing methods, glazing and related surfacing techniques. Presentations on the history and contemporary application of ceramic arts contextualized studio work.

EVALUATION:
Written by: Bruce A. Thompson

Megan, who goes by Fauna, met all learning outcomes in Ceramics: Handbuilding this quarter.
Fauna attended regularly, submitted work on time, and collaborated well in group discussions of projects. Fauna has a solid understanding of the principles of studio ceramics to include ceramics terminology and the physical properties of ceramic materials as evidenced by Fauna's presentation of final work. Fauna is a strong, conscientious student who actively engaged with the assigned projects and was a pleasure to work with.

Fauna produced a whimsical hand built teapot with a very thoughtful leaf design for the lid. Fauna showed a diligent work ethic toward a technically difficult, intricate and playful coil built vase. Fauna also showed good experimentation using glazes, slips and stains.

Fauna is fully prepared for intermediate level course work in expressive-based studio ceramics.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 4

4 - Introductory Ceramics

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

September 2022 - December 2022: Temperate Rainforest Biogeochemistry and Ecophysiology

16 Credits

DESCRIPTION:
Faculty: Dylan Fischer, Ph.D. and Carri LeRoy, Ph.D.

Temperate rainforests are important ecosystems in the Pacific Northwest and other coastal landscapes around the world. This type of ecosystem supports complex interactions among constituents of the atmosphere, the forest, and the underlying geology. By focusing on the biogeochemistry and nutrient cycling of the forest, we worked to understand the interplay between the biotic and abiotic components of these ecosystems. We examined global and local patterns in temperate rainforests, global carbon pools and fluxes, climate change, biogeochemistry and origin of elements, geographic trends, soils and soil chemistry, and research history.

Our lectures and field labs emphasized the temperate rainforests of the Olympic Peninsula and Cascades Volcanos with two multiple-day field trips exploring forests in these locations. Students acquired experience with various sampling techniques that are used to measure carbon (aboveground tree carbon storage) and carbon flux (soil respiration and decomposition) in forested ecosystems in lab exercises in forest biogeochemistry. Students adopted long-term research plots in the Evergreen Forest Reserve and visited plots weekly for sampling and monitoring. Students gave final presentations incorporating various ecological and biogeochemical measurements from their research plots.

Readings and guest lectures introduced students to major ecological and biogeochemistry issues for temperate rainforests. Students read the textbook *Biogeochemistry: An Analysis of Global Change* by Schlesinger and Bernhardt, and we covered topics in biogeochemical processes and reactions, including: Origins of the elements, solar system, and Earth; Atmospheric structure and processes; Rock weather and soil development; Terrestrial ecosystem carbon cycling; the Global carbon cycle; and Riparian ecosystem function. Quizzes and exams demonstrated knowledge of concepts and techniques.

Seminar discussions focused on reading a major biogeochemistry text, two seminar books (*Not Just Trees* by Jane Claire Dirks-Edmunds, and *Hidden Forest* by Jon Luoma), and understanding scientific articles from the primary literature. Each student developed a scientific research proposal, either independently or in a small collaborative group. Students gave final presentations on their research proposals and some will implement these projects in the winter quarter.

Students learned concepts in remote sensing and geographic information systems (GIS) analysis through reading a text (*Essentials of Geographic Information Systems* by Campbell and Shin), lectures, and hands-on computer labs in ArcGIS Pro and ArcGIS online. Students learned about raster and vector data, and a variety of methods for manipulating and analyzing spatial data. Students learned cartographic techniques for map layouts and how to create both WebMaps and interactive StoryMaps for sharing geographic data. Students learned to download data from multiple sources and upload it to ArcGIS Pro, collect their own GPS data in the field, navigate to remote forest plots using GPS, collect data using Survey123, and learned how to upload GPS data into a GIS to do spatial analyses. Students learned to clip rasters, convert rasters to polygons, pairwise clip, select by attributes, export features, change symbology, modify attribute tables, calculate geometry, enter X/Y data, delineate watersheds, create buffers, digitize features, modify features, georeference images, create charts from attribute tables, calculate descriptive statistics, calculate zonal statistics, interpret spatial analyses, create Map Layouts, export WebMaps, and create StoryMaps. Finally, students worked independently to complete a final GIS project either associated with their project proposals or an area of interest in forest ecology. This involved finding and importing data, running analyses, and creating final maps or StoryMaps.

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

EVALUATION:
Written by: Dylan Fischer, Ph.D. and Carri LeRoy, Ph.D.

In the Forest Ecology and Biogeochemistry sections of the program, Megan (who goes by Fauna) demonstrated strong knowledge and engagement in seminars by evaluating published books and scientific journal articles. Fauna's demonstration of learning was good on lecture quizzes, and passable on exams. Theoretical work was paired with learning advanced field and laboratory methods for forest science and biogeochemistry. Students were asked to apply techniques for measurement of forest carbon and soil carbon dioxide efflux in long-term research plots. They then compiled those measurements into a forest carbon budget. Fauna's work in our regular field labs (which evaluated data integrity and critical analysis) was generally good. Fauna's final presentation on carbon flux in a long-term forest measurement plot was generally good. Additionally, Fauna completed a series of workshops demonstrating certification to operate an ADC LCPro+ portable Infrared gas analysis (IRGA) system for the measurement of net soil carbon dioxide efflux. This training required many hours spread over three discrete sessions, and in the final session students were required to “train the trainer” and complete analysis and an oral exam related to safety and understanding of the instrument and analysis.

A research proposal completed throughout the quarter allowed students to apply their learning in forest ecology and biogeochemistry proactively, while deepening their learning in a specific area of forest ecology. Fauna's research group completed a nice proposal describing the influences of cold and hot lahars on soil respiration and moss establishment and growth. The team did a nice job describing the lahars of two Pacific Northwest volcanos and the methods they would use to make comparisons between lahars and along an altitudinal gradient. Fauna's final presentation on this group research proposal was generally complete and professional.

Our work in GIS gradually increased in complexity throughout the quarter. Students were tasked with working with vector and raster data, conducting complex analyses, creating shareable story maps and georeferenced pdfs, and creating a final project integrating their learning. In this work Fauna's combined performance on weekly labs was good. On a final GIS project Fauna did good work.

Finally, this quarter was a unique opportunity to blend biogeochemistry, forest ecology, and GIS in field and remote settings. Our approach emphasized independence in student learning. Forest Science and Biogeochemistry are inherently interdisciplinary, and students dealt with that component in a hands-on way. In this context, successful completion of this program should be seen as a major and unique accomplishment. Fauna should be proud of all work completed this quarter in forest ecology, biogeochemistry, and GIS.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 16

*6 - Forest Ecology
*6 - Biogeochemistry
*4 - Remote Sensing and GIS: Geographic Information Systems

* indicates upper-division science credit

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

March 2022 - June 2022: Abnormal Psychology (B)

4 Credits

DESCRIPTION:
Faculty: Susan J. Cummings, PhD

This course was designed to help students examine abnormal and normal behavior and experience along several dimensions. These dimensions included the historical and cultural influences in Western Psychology, current views on abnormality and psychological health, cultural differences in the approach and treatment of psychopathology, and the role of healthy habitat in healthy mind. Traditional classification of psychopathology was studied, including theories around etiology and treatment strategies. Non-traditional approaches were examined as well and the role of Ecopsychology in Abnormal Psychology were studied.

SPECIFIC GOALS:

1. To allow students to gain an understanding of historical and cultural influences on the development of Psychology, including an increased awareness of the biases and strengths of traditional Euro-American approaches to Psychology and the Mental Health System in the United States.

2. To acquaint the student with the current classification system of the various psychopathologies.

3. To introduce the students to the various theories and approaches to etiology, pathology and treatment.

4. To introduce the student to the current Mental Health system in the United States.

5. To examine the role and relevance of Ecopsychology in psychological health.

EVALUATION:
Written by: Susan J. Cummings PhD

Fauna (AKA Megan) consistently participated fully and was a very engaged student, demonstrating a strong commitment and dedication to the learning process. Fauna's reflection papers were astute and insightful observations as well as good questions, demonstrating Fauna's inquisitiveness.

Fauna's team paper on eco-grief and eco-anxiety demonstrated excellent team collaboration. The paper and presentation were excellent. The paper was a thorough examination of the various aspects of eco-anxiety and eco-grief and how these experiences are, rather than pathological, natural and instinctual. Fauna indicated how awareness of the unfolding planetary catastrophe is impacting mental health on a global scale. The paper is seamless and powerful and includes abundant references. Fauna focused on solastalgia; the grief of losing one's sense of place, and provided excelllent and moving examples of this and the subsequent plight of climate refugees. Fauna also provided statistical data pertaining to this.

Fauna's work demonstrates a solid integration of the complex material and a sophisticated understanding of the multiple facets of Abnormal Psychology and its cultural and historical underpinnings.

It was a pleasure having Fauna in class.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 4

4 - Psychology

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

March 2022 - June 2022: Cultivating Justice: Food, Feminism, and Community Psychology

12 Credits

DESCRIPTION:
Faculty: Arita Balaram, PhD and Prita Lal, PhD

This two-quarter program explored topics like farming, food production, and community psychology at the intersections of gender, race/ethnicity, and class/caste in the US and across the globe, drawing connections between local and global food systems and communities. We studied feminist theories of people's relationship to land, labor, food production and consumption, as well as the impacts of colonialism and capitalist- white supremacist patriarchy on land-based cultures.

Guiding questions included: How is food cultivation and culture a gendered form of expression, resistance, and resilience? In what ways is food justice linked to struggles over land dispossession and larger processes of decolonization? How is cultural nourishment and individual well-being inextricably linked to community well-being?

Students were introduced to theories of community psychology from a feminist lens that framed questions of identity and individual and community well-being within the broader social, cultural, and environmental context. We drew upon on eco-feminist, indigenous, and decolonial world views to cultivate a holistic and historical understanding of marginalized people's lived relationship to land, farming, and food, and the interconnectedness of people and the earth.

During the winter quarter, seminars and asynchronous presentations established foundations in the academic disciplines pertinent to the program, while the readings and presentations in the spring quarter were determined by students on topics related to this program.

In the spring, we read *The Mushroom at the End of the World* by Anna Tsing; *The Deep* by Rivers Solomon; *The Body is Not an Apology* by Sonya Renee Taylor; excerpts from *Against the Grain* by James Scott, *The Sum of Us* by Heather McGhee, and *The Revolution Will Not be Funded* by Incite; *Hunger* by Roxane Gay; and the *Fat and Queer Anthology*. We watched the films: *The Last Season*; *Black Indian: An American Story*; *final straw: earth, food, and happiness* and listened to a variety of podcasts on topics directly pertinent to our readings. Also in the spring quarter, our program participated in Evergreen's annual Equity Symposium, where our class hosted a visit from one of the keynote speakers, adriennemaree brown. Additionally, we went on three field trips this quarter to the following organizations: Garden Raised Bounty (GRuB), the Thurston County Food Bank's Kiwanis Food Bank Gardens, and a campus mushroom walk led by Lauren Re of the South Sound Mushroom Club.

Students engaged in regular seminars and workshops along with research and writing projects about their own cultural foodways. Students completed community-based learning by completing volunteer work at local partner organizations (or researching local organizations) and submitting a final project that integrated their work with our studies this quarter. Students completed weekly asynchronous modules in addition to synchronous class meetings. In the winter, assignments included weekly discussion board posts, annotations to seminar readings, and a synthesis seminar paper. Students also completed a series of reflective writing assignments on what food, culture, and identity means to them. In the spring, students continued to submit weekly discussion board posts and annotations to seminar readings. The community project became the center of our learning in the spring quarter as students were required to complete 7-10 hours a week of volunteer or research work and submit a final project based on this work. The final project took the form of a paper and video presentation or students had the option to submit a creative project such as a zine or podcast.

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

Students took this program at 12, 14, or 16 credits in winter and 12 or 16 credits in the spring. In addition to the work completed above, 14 and 16 credit students participated in a weekly in-person workshop on community-engaged research and ethics. In the winter, 16 students completed a weekly reading and reflection assignment, making connections between the readings and their volunteer and internship work. Students were also introduced to the practice of field notes and completed a set of field notes at their community sites to deepen their ethnographic skills. In the spring, students explored a research question that emerged from their program work and integrated interview design and analysis into their final project.

Students gained skills in intersectional feminist analysis, community psychology and the psychology of gender, systems thinking, qualitative research methods, participatory action research, analytical writing, and anti-oppression education.

EVALUATION:
Written by: Prita Lal, PhD

Megan, who went by Fauna, did solid work this quarter and was a conscientious student. Fauna had excellent attendance and consistently attended class ready to engage in the course materials. Fauna actively contributed to our seminar discussions in multiple ways, such as by co-facilitating the seminar on *The Sum of Us* and *The Revolution Will Not Be Funded*, using creative methods like meditation and art, to engage classmates on this text. Fauna attended all of our field trips with a good level of attention and engagement.

Fauna's discussion board posts were insightful--both demonstrating a careful understanding of asynchronous materials and a thoughtful engagement with class peers. Fauna's annotations on the weekly readings illustrated an attentive reading of the seminar texts.

For the community-based learning component of the program, Fauna volunteered at the campus Organic Farm and worked on a home garden as well. Although Fauna fell short of the minimum required hours, Fauna did create a beautiful zine in partnership with another classmate. In this zine, Fauna wrote about their work at the Organic Farm and made connections to various program sources. Fauna also wrote about some of the various plants (including ones labeled as "weeds") and insects at the Farm. Fauna did excellent work describing the plants *thistle*, *dill,* and *lupine*, including their cultural significance, taxonomy, and edible uses. Fauna did a great job integrating *The Mushroom at the End of the World*, *The Body is Not an Apology*, the "Queer Mycology" podcast, along with our class visit from Lauren Re, into the zine by drawing on themes of radical self love, acceptance, and solidarity. The images Fauna created were lovely and brought a lot of color and excitement to the zine. Beth Leimbach, the Organic Farm manager, said that Fauna's volunteer work was a helpful addition to the farm's operations.

In sum, Fauna had a successful term in our program.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 12

2 - Sociology of Food Justice
2 - Feminist Psychology
8 - Community-Based Learning: Organic Farm & Home Garden

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

January 2022 - March 2022: Biology and Climate Change in the Pacific Northwest

16 Credits

DESCRIPTION:
Faculty: Rachel Hastings, PhD., Amy Cook, PhD.

Biology and Climate Change in the Pacific Northwest was a full-time coordinated studies program in which students studied the biology of ecosystems and evolution together with language and culture, with a focus on the Pacific Northwest and impacts of climate change. To support the biology and prepare for future work in science, we also studied quantitative reasoning and mathematical modelling each week. Class activities included online lecture and workshop sessions, seminar and problem-solving sessions, and weekly in-person lab and/or field experiences.

In Linguistics, we focused on language and culture with emphasis on languages of the Pacific Northwest. Topics included introductions to language change, language contact, regional dialect features, Traditional Ecological Knowledge, and Indigenous language revitalization. Students read most chapters in Denham's *Northwest Voices* as well as additional articles on biocultural diversity and connections between language and the environment. Students wrote two short papers and completed a final assignment in small groups, exploring the analogy between language family trees and phylogenetic trees.

In Quantitative Reasoning, we focused on modeling environmental data using linear, exponential, and power functions. We covered Chapters 4-6 of Langkamp & Hull's *Quantitative Reasoning and the Environment*, with students completing weekly homework problems from the book, participating in online discussions, and taking two assessments covering linear functions and exponential functions respectively. Emphasis in each chapter was on using manual as well as technology-based methods to find models, including linear regression in conjunction with log graphs. Students also worked in small groups to complete a final assignment, modeling some of our fieldwork data according to the quantitative reasoning methods we covered.

In Biology, we focused on evolutionary biology, ecology, and several aspects of organismal biology and the intersection of these topics with the effects of climate change from the organismal level to the biosphere level. The evolutionary biology piece covered evolutionary processes, hybridization, and phylogenetics. The ecology piece covered ecological processes at the level of populations, behavior, communities, ecosystems, and the biosphere. Work in the biology portion of the program included topics in organismal biology that are tied to climate change including photosynthesis, cellular respiration, and thermoregulation. Labs focused on the animal and plant diversity and field work provided students with the opportunity to observe ecological structures and processes in the field and gain experience in basic field techniques including the use of quadrats and transects and the measurements and calculations behind determining carbon content in trees, stream flow, and taxonomic and functional diversity in several ecological communities. Students had weekly readings from *Hurricane Lizards and Plastic Squid* by Thor Hansen which provided examples of concepts that they were learning in lectures, labs, and fieldwork. Assessments were based on weekly lab and field assignments and a midterm and final exam.

Students completed a final project including a research paper and presentation, focusing on climate change and a landscape of their choosing. This quarter-long experience involved identifying a site, writing an annotated bibliography of primary and secondary sources, participating in peer review of a paper draft, and giving a 5-minute PowerPoint presentation on some aspect of the research findings. Projects needed to address biological, linguistic, and cultural features of the landscape as well as current or potential impacts of climate change.

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

EVALUATION:
Written by: Amy Cook, Ph.D., and Rachel Hastings, Ph.D.

Megan, who goes by Fauna, took full advantage of the learning opportunities presented in the program and was a fully engaged member of the learning community. She attended class regularly, completed all assignments and earned full credit.

Fauna's assignments and exams demonstrated a firm grasp of the key concepts in plant and animal organismal biology, ecology and evolutionary biology presented in the program. Fauna made clear connections between concepts in these fields and climate change. In plant and animal organismal biology she demonstrated a very good understanding of how an organism's physiology affects its response to changes in abiotic conditions like the interaction of the thermoregulation mechanisms in birds with high summer temperatures and how climate change affects vital rates in a variety of organisms and, therefore, their population size. Fauna's answers on the exams clearly integrated the principles of evolution with climate change in discussions of phenotypic plasticity and natural selection. In community ecology, Fauna demonstrated a detailed understanding of how changes in abiotic conditions influence things like ecological interactions, a species' distribution, and disturbance regimes. She made effective use of examples in her discussions; demonstrating the ability to apply concepts learned in class to novel systems. Fauna's entries for the organismal diversity labs demonstrated a solid understanding of plant and animal diversity and phylogeny.

In the field portion of the program Fauna proved herself to be a capable and competent field scientist and maintained a good notebook that was complete, detailed and easy to follow. In the field activities, she gained skills in the use of a variety of field ecology techniques including the use of quadrats and transects, measurement of tree height and diameter and stream characteristics, and collecting data and doing the calculations for functional diversity diversity and electivity. Fauna's entry for the "Animal Ecology in an Arid Landscape" activity demonstrated very good observation skills and a thoughtful reflection on the behavior patterns at two types of waterhole in Arizona based on trail camera footage.

In quantitative reasoning, Fauna demonstrated a strong understanding of linear, exponential, and power functions as applied to environmental sciences. Fauna participated regularly in the weekly homework discussion assignments and did very good work on the two assessments and final collaborative assignment. Fauna's math notebook was excellent, showing strong success on the problems as well as a very good ability to organize and present quantitative information.

In linguistics, Fauna showed very good insight into our core topics of language change, language and culture, and the intersections between language and landscape. Fauna wrote both short essays and completed all the annotation/discussion assignments as well as the final collaborative assignment. Fauna participated actively in class discussions and volunteered to share small-group discussion content. Fauna's essays were very well written, with great discussion of humans' role in shaping landscapes, and demonstrating a very strong ability to synthesize themes shared by our core texts on climate change biology and Pacific Northwest languages.

In the final project, Fauna focused on the Billy Frank Jr. Nisqually National Wildlife Refuge. The project paper provided an overview of the ecology, history, and culture in that landscape. Fauna did a particularly good job describing the cultural history of the region, with emphasis on Indigenous people and the political and legal battles for fishing rights. The paper demonstrated a good sense for change within the landscape; connections to climate change in particular could have been deepened. The paper demonstrated good expository writing skills; it was well-organized with a smooth narrative flow and a confident, professional tone. Fauna effectively incorporated material from the primary and secondary literature, correctly citing this work. Fauna's final presentation of this research was very well put-together with very good pacing and content.

Engstrom, Megan T — A00426877

Last, First Middle — Student ID

Fauna met and exceeded the program learning goals and developed a solid foundation in biology, linguistics, and climate change over the course of the quarter. She clearly demonstrated interdisciplinary thinking and the ability to integrate information from a variety of sources.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 16

6 - General Biology: Ecology and Evolutionary Biology with Lab
2 - General Biology: Animal and Plant Physiology
3 - Linguistics: Language and Culture
3 - Quantitative Reasoning in Biology
2 - Final Project: Billy Frank Jr. Nisqually National Wildlife Refuge

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

September 2021 - December 2021: Anthrozoology

16 Credits

DESCRIPTION:
Faculty: Mike Paros, DVM

Why do humans keep pets and at the same time raise animals for food? What are the psychological and moral complexities that characterize our relationships with animals? What is the impact of human–animal interactions on the health and well-being of people and animals? How do we assess the relative welfare of animals under a variety of circumstances? Anthrozoology is the interdisciplinary study of human (Anthro) and animal (Zoo) interactions. Through a combination of lectures, guest speaker presentations, reading, writing, and discussion, students became familiar with the multiple and often paradoxical ways we relate to companion animals, animals for sport, zoo animals, wildlife, research animals, and food animals.

Students used their collective experiences, along with science-based and value-based approaches, to critically examine the ever-changing role of animals in society. The quarter began by focusing on the process of animal domestication from an evolutionary and historical perspective. Through the formal study of animal ethics, students became familiar with different philosophical positions on the use of animals. Students learned how researchers utilize methods drawn from psychology, physiology and ethology to better understand the welfare of animals. Students were expected to read general and primary literature in such diverse fields as animal science, animal behavior, neurobiology, sociobiology, psychology, and philosophy. In addition, the book *Some We Love, Some We Hate, Some We Eat* by Hal Herzog was used as a guide to the psychology of human-animal interactions. All readings, along with associated study questions, were assigned daily. Weekly student exams assessed student mastery of lecture and workshop content. *Anthrozoology* was the first of two courses that together comprise the Anthrozoology Certificate sequence.

EVALUATION:
Written by: Mike Paros, DVM

Megan (Fauna) consistently took advantage of learning opportunities in lectures, and workshops through active engagement with the subject material. Fauna completed all of the assigned reading and study questions throughout the quarter demonstrating thorough preparation prior to lectures and workshops. Based on weekly exams, Fauna showed excellent comprehension of all major concepts covered in the course. Fauna acquired proficient knowledge on the process of animal domestication from an evolutionary and historical perspective. Fauna had an excellent understanding of important scientific and ethical components that affect how we interact with companion animals, animals for sport, zoo animals, wildlife, research animals, and food animals. Fauna demonstrated outstanding comprehension of the biological basis and psychological aspects of the human-animal bond. Fauna expertly applied concepts in psychology, neuroscience, and animal cognition in order to investigate the physical and mental lives of animals while simultaneously exploring domestic animal behavior. Fauna showed a great understanding of animal welfare science and experimental design, while able to skillfully review and interpret primary scientific papers from a critical perspective. Fauna identified different philosophical positions on the many uses of animals, and provided logical coherent arguments. Fauna did a great job preparing and participating in this year's national Animal Welfare Judging Contest.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 16

4 - Animal Behavior and Cognition (Certificate Sequence)
4 - Anthrozoology (Certificate Sequence)

Engstrom, Megan T — A00426877

Last, First Middle — Student ID

4 - Animal Welfare Science (Certificate Sequence)
4 - Animal Ethics (Certificate Sequence)

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

March 2021 - June 2021: Existentialism in Literature and Philosophy

16 Credits

DESCRIPTION:
Faculty: Dr. Marianne W. Bailey

The class Existentialism focused on precisely this movement: "Existentialism".

In this course of study, we focused on precisely this important philosophical movement which engaged France and much of Western Europe in the aftermath of the world wars of the early 20th century. It acknowledged the lack of communality in religion and moral codes as well as in the meaning of a human life. Existentialists acknowledged this need for meaning in a human life. We read together, and found it was up to each individual to find/create. We read forerunners of this movement, from Greek tragedians to Nietzsche, then 20th century writers such as Heidegger, Rilke, Sartre, Beauvoir.

EVALUATION:
Written by: Dr. Marianne W, Bailey

Megan (who goes by Fauna) Engstrom did excellent work in the program of study, Existentialism. She was active and knowledgeable in class discussion, offering thoughtful remarks on weekly readings. Her presentation on Nietzsche's book, “Twilight of the Idols” was sound and helpful. In her first essay on Sophocles' play “Antigone, she commented especially knowledgeably. She helped to clarify his plays in discussion during the class meeting. Fauna's second major essay, “Philosophy and me” was articulate and honest in discussing her ability to offer empathy and understanding to others, but not to herself, writing that the text we read helped her come to terms with the realization of this need. She, too, deserves her own empathy, she wrote. Her work was effective on Beauvoir and on Camus, in his novel *The Plague*. Her writing on Heidegger and his struggle with faith was also interesting. Her honest self-assessing essay was exceptionally wise. She remarked that she recognizes her positive growth, in part, through this study of our class texts. This, of course, goes to her serious approach to learning.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 16

16 - Existential Literature and Thought

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

September 2020 - March 2021: Shaped by the Sea, Shaped by the Hand: Marine Biology and 3D Art

32 Credits

DESCRIPTION:
Faculty: Gerardo Chin-Leo, Ph.D., and Julia Heineccius, M.F.A.

This program investigated marine environments and life from the perspectives of science and 3D art and design with an emphasis on fine metalsmithing. Activities that integrated science and art included independent projects that researched the adaptations of a specific organism (fall) and designed an organism adapted to a specific environment (winter). Course material was presented through synchronous online lectures, seminars, and workshops.

MARINE BIOLOGY. Fall quarter studied the ecology of coastal marine environments. Students learned about the physical features of these systems and the diversity, patterns of distribution and productivity of their organisms. Students conducted independent surveys of local marine habitats. Students who were not able to do field work, conducted research on the ecology of habitats not covered in lectures. Winter quarter examined open ocean environments and presented the biology of major phyla. Students in teams gave presentations on the general biology of each phyla and each student in the team presented published research on the adaptations of an organism from that phyla. All the students were required to read the scientific papers presented in these talks. Students were evaluated through weekly quizzes, mid- and final-exams, science article summaries and field/research reports. Text: Marine Biology (Castro&Huber). 11th Ed.

3D ART. **Fall quarter**, the 3D art and fine metalsmithing component students used a variety of techniques to construct tools to support their observations in marine environments: a Secchi disk (used to measure light penetration in water), a trowel, and a plankton net. Students applied layers of vinyl to acrylic disks to create the standard black-and-white Secchi disk checkerboard pattern, as well as an alternative “B-side” pattern using multiple colors. During an in-person activity at a local beach, students used rudimentary and ecologically sensitive sand-casting methods to create weights for their disks using a bismuth-tin alloy. The trowel engaged students with beginning techniques in hand-sawing, drilling, and forming sheet metal. Plankton net construction guided students through the patterning and hand-sewing a cone of mesh fabric attached to a modified container for collecting marine microorganisms. Winter quarter students continued to integrate an understanding of structure and function into studio work, considering protective features in marine organisms and creating objects for protecting the human body out of recycled materials. Students adding complexity to their representations of marine life with the addition of moving mechanisms and titanium interference coloring processes - building their own electrical anodizing unit out of provided materials. In both quarters students connected themes of art, craft, and technology to contemporary concepts in the arts and sciences through text analysis, annotation exercises, and discussions, on The Invention of Craft (Adamson) in the fall, and a selection of texts and resources in the winter.

INTERDISCIPLINARY RESEARCH PROJECTS. **In fall quarter**, each student conducted library-based studies on a marine organism of their choice. The science work focused on presenting findings, data and methods published in the scientific primary literature. Students subsequently applied their knowledge of how to shape materials, creating a 3D art model of their organism that conveyed elements of what they learned through their research. Beginning with a range of drawings, students used copper and brass structures in combination with mixed media to describe the form of their organism. In winter quarter, each student designed a novel organism based on the characteristics of a phyla and the stresses of a given habitat. They wrote a report explaining the scientific basis for their design using supporting material from the scientific literature. Students produced multiple illustrations of their invented organism and constructed a final 3D model applying learning gained from titanium anodization and mechanism trials.

Students presented the results of both independent projects through written reports and slide presentations.

SEMINAR (fall quarter only). Students examined various aspects of design, reading texts including Mismatch: How Inclusion Shapes Design (Holmes), and Bio Design (Mayers). They also analyzed films on the scientist-artist Ernst Haeckel (Proteus: A Nineteenth Century Vision) and on the collaboration of science and art in environmental conservation (Fragile Legacy). Discussion of scientific primary literature articles and scholarly papers on art developed knowledge about the methods of analysis and communication used by professional scientists and artists. In addition to participating in seminar discussion, students took turns facilitating the seminar, summarizing main points from each session, writing responses to the readings/films and presenting information on current news in marine biology or art.

FOUNDATIONS OF COLLEGE SUCCESS (fall quarter only). First-year students' academic skill development was supported by their participation in Foundations of College Success, a module of instruction and community-building activities where students were introduced to college support services and practices, wellness strategies, study techniques, and metacognitive strategies to foster both personal and academic growth. In lieu of the Foundation of College Success course, intermediate students conducted more extensive work in their final organism research and 3D organism model projects.

INDEPENDENT CREATIVE RESEARCH PROJECTS (winter quarter only). During the winter quarter students had the option to enroll in an additional course section devoted to the development and execution of a short-term independent creative project related to program themes. Students developed a major guiding question for their work, met weekly and posted to WordPress sites to share project progress. Projects culminated in a final presentation and paper discussing project outcomes.

EVALUATION:
Written by: Gerardo Chin-Leo, Ph.D., and Julia Heineccius, M.F.A.

Megan who goes by Fauna was a motivated student who maintained excellent attendance and showed solid understanding of concepts in marine biology and 3D visual art, and the ability to connect concepts across these fields of study.

In fall, Fauna's marine biology exam score were fair to good showing solid knowledge of most of the material. In winter she showed significant improvement as evidenced by her very good exam scores. Fauna successfully applied her knowledge in a field study where she interpreted her observations of an intertidal beach and a dock at a local estuary. Through this work, Fauna showed a good understanding of estuarine ecology. Fauna did a very job on the student presentations of a phyla. She contributed substantially to a team effort to present general information on fishes. In addition, Fauna presented a scientific research paper on how lanternfish vision can detect bioluminescence. Fauna's talk while brief, showed in-depth understanding of the article. Her summaries of the scientific articles presented by other students were very concise and thorough providing further evidence of a strong ability to understand and explain scientific research results and methods.

In the 3-D art and design section Fauna successfully completed projects that included the construction of tools for marine biology surveys and a marine inspired object with a protective function. This work reflected an understanding of how to design functional pieces and an ability to apply various tools and materials using the metal working techniques taught in the program. Fauna completed annotations of the art text and engaged in discussion sessions of other art readings showing a good understanding of the social and historical complexities that continue to mediate concepts of art and craft.

Engstrom, Megan T — A00426877
Last, First Middle — Student ID

Fauna was an active participant in seminar contributing to both small and large group discussions. Fauna completed the required written responses as well as various seminar roles. In this program activity, Fauna showed an understanding of both art and science readings and engaged in discussion of how these disciplines interact.

For the interdisciplinary independent project in fall, Fauna studied the killer whale *Orcinus orca.* Fauna did an excellent job on the science componentof this project. Their written report included general information on the biology of this organism and substantial information from several articles published in the scientific primary literature on the predation of *O. orca* on whales and sharks. Fauna's talk focused on a study that examined dark predation and resulting tooth wear in Northeastern Pacific killer whales. Through this project. Fauna demonstrated a very good ability to understand and communicate the scientific primary. In winter, Fauna invented a bioluminescent shrimp that lives in the bathypelagic zone. Her invented organism has adaptations to withstand high pressure and is camouflaged to escape predation. Fauna did an excellent job on this project providing a carefully thought-out rationale for each of the adaptations of their invented creature. Fauna supported the rational for her invention with scientific articles on deep-sea arthropod ecology and bioluminescence. Fauna's written report and oral presentation for both fall and winter projects were well organized and clear.

Fauna successfully completed art pieces that expressed characteristics of the organisms that they studied and invented. These demonstrated their ability to apply various metal working techniques. In fall they produced a copper wire representation of an orca whale. In winter, the model of their invented shrimp was an articulated piece using titanium, wire, and model clay.

In winter, Fauna completed an independent creative project that studied the history of scientific illustration. Fauna then used digital software to produced scientific illustrations of various arthropod species. Through this work, Fauna learned various techniques in digital drawing such as layering and use of brushes to generate various colors, textures, depth, shading and cross hatching.

SUGGESTED COURSE EQUIVALENCIES (in quarter hours) TOTAL: 32

10 - Marine Biology
10 - 3D Art and Fine Metalsmithing
2 - Interdisciplinary Seminar
6 - Interdisciplinary Independent Project
4 - Independent Creative Research Project

EVERGREEN

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 quarter credit hours

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.
- 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.