Kristoffer Pennington

My endorsement area I have chosen is the biology track. My primary focus at The Evergreen State College was in the life sciences, especially within the ecology area of the sciences that concern climate studies, Zoology, Forest ecology, and genetics.

My first class, Climate Foundations and Global Futures, prepared me for learning about biology in contemporary issues while leaning into the social sciences of how it affects society as a whole. Climate change is going to heavily affect the lives of every living thing on earth and learning about how this is going to impact us is going to be critical for the future generations for adaptation and mitigation. I earned credits in Political Ecology of Climate Change (6), Political Economy of Climate Change (6), and Climate Science and Quantitative Literacy (4) for a total of 16 credits.

My second class, General Chemistry, prepared me by giving me practical lab experience while also learning about the foundational aspects of chemistry while also learning the more advanced ones, such as nuclear chemistry. This also gave me a solid ground to launch off from for my studies later on in my education as chemistry is a critical part of biology. I earned 16 credits in General chemistry with Lab.

My third class, Ecological Agriculture: Crop Botany and Plant Genetics, greatly prepared me for multiple fields, like Botany, Micro Biology, Genetics, and Evolution. The main focus was on the agricultural side of botany, but the lessons could be applied to all fields. For example, selective breeding vs. wild strains of crops pertaining to evolutionary biology and genetics. While learning about Genetics also gave me knowledge in the fields of Microbiology, and Cell Biology. I earned credits in Seminar on the History of Plant Breeding (4), Introduction to Plant Genetics (5), and Introduction to Crop Botany, Plant Physiology and Breeding with Lab (6) for a total of 15 credits.

My fourth class, Anatomy and Physiology 1 & 2, greatly prepared me with an incredibly detailed and in-depth look into the field of Human Anatomy and Physiology with significant lab time every week that included dissection of pig carcasses and observation of human skeletons. The class also had frequent testing on anatomical terminology and the structure of the body and its parts. I earned a total of 12 credits in Anatomy and Physiology 1 & 2 with Lab.

My fifth class, Temperate Rainforest Biogeochemistry and Ecophysiology prepared me with detailed knowledge about Ecology and the use of Mathematics applied in use in life sciences with meticulously collecting data and analysing the results. The class entailed significant field work to collect data from an assigned plot of land over a long period of time (6 Months) while using statistical software (JMP) to analyze data. Use of ArcGIS was very prevalent; we utilized advanced features to create accurate maps of the forest ecology around the campus, culminating in a final project involving ArcGIS story maps and a final project pertaining to tree transpiration over multiple summers on the campus. I earned credits in Forest Ecology(6), Biogeochemistry(6), Remote Sensing and GIS: Geographic Information Systems(6), Forest Ecosystem Ecology(6), Research in Ecological Science(6) and Statistics I and II: Accelerated(4) for a total of 32 upper division science credits.

My sixth and final relevant class, Wildlife Conservation Biology, Prepared me for the field of Animal Biology and Zoology. A significant portion of the class involved field observations within a journal. There was also frequent lab time involving preserved specimens of fish and birds for the purpose of identifying characteristics such as dimorphism and differing physical features between species. I earned a credits in Conservation Biology (10), Wildlife and Fisheries Biology (8), Field and Analytical Methods in Ecology and Conservation (8), and Environmental Problem-Solving (2) for a total of 28 upper division science credits.