

## ESRM 429 2017: Science and Management of The Columbia River Basin

The Columbia River represents one of the greatest natural resources of North America. The watershed encompasses much of the Pacific Northwest, and we share the headwaters with Canada. Natural and human dominated ecosystems range from high alpine lakes, to desert steppe with expanses of irrigated agriculture to coastal rainforests. This diversity represents one of the largest gradients in climate and land use within a single large watershed in North America. With the potential for inexpensive energy production through hydropower, the Pacific Northwest region attracted the western migration of entrepreneurs. This produced a profound shift in the management of natural resources by removing the dominant Native American cultures that existed for centuries, and their understanding of sustainability of natural systems within the watershed. Integrated basin management of the Columbia River requires new science, education, and outreach to identify and mitigate threats to sustainability and promote avenues to adapt to a changing climate. Over the next 10 weeks, we will here from scientists, graduate students, resource managers, as well as members of first nations that work on these issues today.



### Schedule of Speakers:

| Date                     | Speaker                     | Title  |
|--------------------------|-----------------------------|--|
| March 28 <sup>th</sup>   | Bart Nijssen (UW - CEE)     | "The Columbia River in the 21st century: Projections of climate change impacts on the hydrology of the Columbia River" |
| April 4 <sup>th</sup> :  | Lara Binder (UW CIG)        | "Preparing for climate change in the Columbia River Basin"   |
| April 11 <sup>th</sup> : | Dan Jaffe (UW Bothell)      | "Impact of coal dust and diesel emissions from trains in the Columbia River Gorge"                                     |
| April 18 <sup>th</sup> : | Ben Miller (UW SAFS)        | "Carbon Emissions Throughout the Hydropower Complex"   |
| April 25 <sup>th</sup> : | TBD                         | TBD  |
| May 2 <sup>th</sup> :    | Susan Prichard (UW SEFS)    | "Changing fire regimes in the Columbia River Basin: recent large fires and management implications"                    |
| May 9 <sup>th</sup> :    | Jim Anderson (UW SAFS)      | "The decline and recovery of Columbia River Salmon: 1930-2030"   |
| May 16 <sup>th</sup> :   | Phil Rigdon (Yakama Nation) | "Yakama Nation and the Columbia River"   |
| May 23 <sup>th</sup> :   | Nick Ward (PNNL)            | "Biogeochemistry of the Columbia River"  |
| May 30 <sup>th</sup> :   | Sasha Richey (WSU)          | "A river runs through it: The Story of the Columbia Plateau Regional Aquifer System."                                  |

