



UNIVERSITY OF  
OREGON

College of Education

# Educational Data Science Specialization

A five-course Educational Data Science (EDS) Specialization is available now in the Department of Educational Methodology, Policy, and Leadership (EMPL) at the University of Oregon.



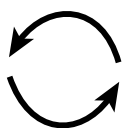
## Introductory EDS (3 credits)

Introduces the fundamentals of statistical computing for EDS. Introductory programming, data wrangling, data visualization, reproducible research.



## Data Visualization for EDS (3 credits)

Best practices in data visualization for EDS communication. Visual perception, color, uncertainty, and communication mediums.



## Functional Programming for EDS (3 credits)

Foundations of functional programming for EDS. Function writing and iteration emphasized.



## Machine Learning for EDS (3 credits)

Statistical models for prediction. Bias-variance tradeoff, cross-validation methods, model evaluation, and a variety of models used in EDS.



## Capstone (4 credits)

An independent study course where you will apply your EDS skills to a real-world data analysis project.

Become a leader in educational data and modern data science methods. Help guide critical stakeholder decisions from data analyses, while communicating results through effective data visualizations. Create more efficient and transparent data pipelines for data collection. Design and develop interactive data platforms to allow stakeholders to explore their own data.

To learn more, visit [education.uoregon.edu/data-science-specialization-educational-leadership](https://education.uoregon.edu/data-science-specialization-educational-leadership) or contact Daniel Anderson at [daniela@uoregon.edu](mailto:daniela@uoregon.edu).