HYDROLOGY

UCDAVIS

Are you interested in solving water supply and water quality problems? Do you want to deeply understand the water cycle related to floods, droughts and water security?

WATER IS KEY TO LIFE

Hydrology is the science of water: its occurrence, distribution, movement, and properties within each phase of the hydrologic cycle and its relationship to humans and the environment. Hydrologists study the physical, chemical and biological processes involving water as it travels its various paths in the atmosphere, over and beneath the earth's surface and through growing plants.

Hydrologists apply scientific knowledge and mathematical principles to solve water-related problems in society such as finding water supplies for cities or irrigated farms, controlling river flooding, cleaning up pollution or estimating minimum flow requirements for aquatic species.

After you graduate you will be prepared for a variety of careers. For Example:

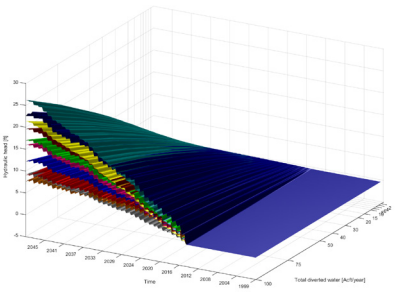
- U.S. or State government/private water management agencies
- Engineering and consulting firms
- Non-governmental (NGOs) or envrionmental organizations
- Graduate school and academic careers

STUDENTS IN THIS MAJOR ARE TRAINED IN THE FOLLOWING AREAS:

- Water cycle processes and components: precipitation, evaporation, streamflow, groundwater flow, infiltration, snowmelt
- Fundamental processes that control the quantity and quality of water
- Planning, analysis and management of water resources
- Groundwater analysis of wells, aquifer systems and basins; overdraft consequences and prevention; contamination consequences and prevention
- Ecological consequences and dilemmas in water exploitation and management
- Water conservation and smart water use to prevent exhaustion of natural resources

Mentoring of Hydrology undergraduates is provided by the highly successful Hydrologic Sciences Graduate Group

Department of
LAND, AIR AND WATER RESOURCES
University of California, Davis
Climate Change • Sustainable Agriculture
Environmental Quality • Landscape Processes



http://lawr.ucdavis.edu/student-scene/undergrad-programs/hydrology

HYDROLOGY

Students who plan to become hydrologists need a strong emphasis in mathematics, statistics, geology, physics, computer science, chemistry and biology. In addition, sufficient background in other subjects - economics, public finance, environmental law, government policy - is recommended with members of the public, water management agencies, politicians, and the media, among others.

PREREQUISITES:

- CHE 2A,B,C
- BIS 2A,B
- PHY 9A,B,C
- ENG 6 (or equiv.)
- MAT 21 A,B,C,D
- MAT 22 A,B
- GEO 50,50L

71 Units

GENERAL EDUCATION + ORAL EXPRESSION (HYD 10 recommended)

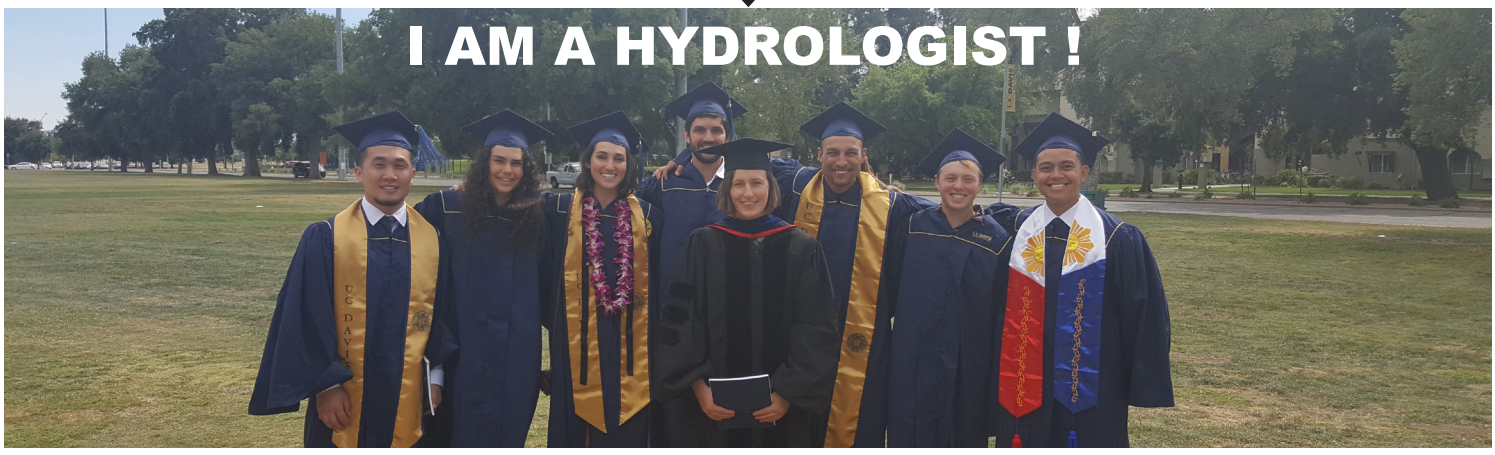
HYDROLOGY CORE CLASSES:

- HYD 141 Physical Hydrology
- HYD 144 Groundwater Hydrology
- HYD 103 or ENG 103 Fluid Mechanics
- HYD 151 Field Methods
- HYD 134 Aqueous Geochemistry
- SSC 107 Soil Physics
- ECI 114 Probabilistic Systems Analysis or STA 130A,B Statistics
- Select one of GIS/Remote Sensing (LDA 150, HYD 182, ESM 185, 186)
- Select one of Policy/Law: (HYD 150; ESP 161, 169; ESM 121; ARE 147)
- Select three of Hydrologic Science (HYD 110,124,142,143,145,146,147; ECI 141)

46-55 Units

RESTRICTED ELECTIVES: Focus on your interests

16-26 Units



For more information please see our website at:
http://lawr.ucdavis.edu/student-scene/undergrad-programs/hydrology,
email lawradvising@ucdavis.edu or visit our Advising Center in 1150 Plant and Environmental Sciences Building