

## Rufa N Pazyuk

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**From:** Civil Engineering Undergraduate Advising  
**Sent:** Tuesday, March 31, 2020 12:50 PM  
**To:** coe-cee-ug-students Sympa List  
**Subject:** Civil Engineering Undergraduate Announcements - March 31, 2020

### Civil Engineering Undergraduate Announcements – March 31, 2020

Happy second day of spring quarter! I hope everyone had a safe and healthy spring break.

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### Have Questions on COVID-19 as a UC Davis Student?

Student Affairs developed a helpful resource page with important updates for students, including a new section on academic advising: [COVID-19 FAQ for Students](#). The FAQ will continue to expand as further decisions and developments occur. It is recommended that you check the FAQ page frequently

### Resources for Students with Dependents

We know these are challenging times and appreciate everyone's patience as campus departments are adjusting our day-to-day operations due to COVID-19. The Solano Park Treasure Trove, WRRRC Student Parent Closet, and Aggie Compass Food Pantry are planning to continue to offer food, diapers, and other resources to students during the university closure. [Please fill out this survey](#) to help us better support **caregiving undergraduate and graduate students** during this time.

They have also compiled a [document of on campus and community resources](#) that may be supportive to caregiving scholars in the midst of COVID-19 changes. This [document](#) will continue to be updated as new resources or policies become available.

Please email [wrrc@ucdavis.edu](mailto:wrrc@ucdavis.edu) if you have any questions or concerns.

## Connecting With CARE

As we venture into this new quarter, unlike any other, CARE would like to ensure that the UC Davis community knows that they are still available and committed to supporting survivors of sexual harassment, sexual assault, intimate partner violence, and stalking.

Please join them, virtually, **this Friday, April 3rd from 2:30-3:30 PM** for an informational session on our services, how to make a referral, and much more. If you would like to attend this session, please register to receive Zoom information by [clicking here](#).



## Class Opportunities

### EDU 098 Who Are You? Exploring Identity & Diversity

Attached is a flyer for our returning course offered this Spring Quarter 2020 through First Year Aggie Connections: **Who Are You? Exploring Identity & Diversity**

CRN: 62796  
Wednesdays  
11:00-11:50am  
1 unit, EDU098

This course explores some of the critical concepts of Diversity and Inclusion in the university setting and beyond as well as their connection to academic, social/cultural, personal and career challenges and resources associated with college success and leadership development. This course does not count toward the Education minor.

Please note, this course will be offered as a virtual course in spring quarter and available via Canvas.

### Textile Technology to Save the World: Applications of Fabric Innovations

Spring Seminar offered to all undergraduates.

TEXTILE TECHNOLOGY TO SAVE THE WORLD: APPLICATIONS OF FABRIC INNOVATIONS

CRN Number: 66591

Room: Wellman 5  
Day/Time: Wed, 8:00am – 9:50am  
2 UNITS- Pass/No Pass

Description:

Textiles and clothing go far beyond the world of fashion and art. Functional applications rely on performance attributes of the fabrics. This seminar addresses the global market of functional fabrics and textile innovations. During the quarter, we will discuss types of textiles and their applications to human health/safety, environmental problems, and industrial efficiency. Fabrics and garments can be designed to protect humans and the environment alike. Students will be informed on frontiers of new textile technologies that are currently changing the world in which we and future generations live.

## HYD 274 Practice of Groundwater Flow & Transport Modeling

Spring Quarter, 2020

Hydrologic Sciences / Department of Land, Air, and Water Resource  
University of California Davis

Course Instructor: Thomas Harter, Ph.D., 125 Veihmeyer Hall, [ThHarter@ucdavis.edu](mailto:ThHarter@ucdavis.edu)  
<http://groundwater.ucdavis.edu/gwmodelingcourse.htm>

**Credits: 3 (letter graded)**

**Time: Lecture-Lab Wednesday Morning 9-12 (lectures at your schedule, lab and discussion live online)**

**GUEST LECTURERS INCLUDE Dr. WES HENSON (USGS, on MODFLOW OWHM/FARM Package)**

In this hands-on laboratory course, students learn how to develop their MODFLOW/numerical groundwater modeling projects for a professional (consulting, applied research) context. The course introduces the practical aspects of groundwater modeling and modeling projects in an intuitive and comprehensive manner. The course focuses on hands-on experience with the planning, preparation, execution, presentation, and review of a modeling project. We briefly review the methods, assumptions, and limitations of groundwater models – students are expected to take or have taken more rigorous numerical methods courses (most students typically take this course in conjunction with HYD 269). We will learn and use MODFLOW, MODPATH, and MT3D within the Groundwater Vistas GUI and review and understand the underlying physical concepts in the context of real world applications (site to basin scale). As a class project, students will familiarize themselves with one additional groundwater modeling software (e.g., IWFEM, PARFLOW, Analytic Element Method, IGW, FEFLOW, MikeSHE, HYDRUS). At the end of the course, participants should be able to understand and actively engage in planning, implementation, supervision, and/or review of groundwater modeling projects, particularly MODFLOW projects. The course is complementary to and well suited as an add-on to HYD 269, ECI 144, ECI 289, and ECI 272A/B/C. This course specifically focuses on the practice of actual model building.

### Course Topics/Syllabus:

- overview of groundwater modeling software / Intro to MODFLOW
- data collection and preparation
- linking GIS and GW Model software
- model grid design
- boundary conditions / MODFLOW packages
- transient flow modeling
- sensitivity analysis, model calibration and verification
- capture zone analysis
- contaminant transport modeling
- geostatistical modeling

In addition to class attendance, students are expected to independently:

- prepare a short project proposal
- prepare and implement a computer modeling project (can be done jointly with HYD 269)
- give an in-class project presentation about their project (jointly with HYD 269)

## Summer Classes at UCLA

UCLA's Civil and Environmental Engineering Department will be offering [3 summer courses](#) that might be of interest to you. These courses are fully online and attached are the syllabi for your reference.

**C&EE M20:** Matlab Programming Course (all Eng. Majors take this class at UCLA, except CS/EE who have their own course).

**CEE103:** This is a numerical analysis course that can be taken by all Eng. majors (as well as Sciences / Bio / Math / etc.).

**CEE 148:** This is a course that is specific to civil engineering majors.

If you are interested in any of these courses, please go to the [Summer Sessions website](#) which has specific instructions for UC visiting students.

## Job/Internship Opportunities

### California Division of Safety of Dams

The California Division of Safety of Dams just posted a job advertisement for an entry-level Engineer position in their Design Engineering Branch. This is a highly technical position, and they are looking for civil engineers who can apply their skills, engineering education and experience to a range of dam safety related assignments that would include, but are not limited to, structural analyses and modeling, seismic analyses, geotechnical analyses, hydraulic analyses, hydrology studies, constructability, and intermittent dam inspections.

The final filing date for this advertisement is 4/22/2020. Please see the link below.

<https://www.jobs.ca.gov/CalHrPublic/Jobs/JobPosting.aspx?JobControlId=197337>

The California Division of Safety of Dams, has also posted three engineering student assistant positions.

<https://jobs.ca.gov/CalHrPublic/Jobs/JobPosting.aspx?JobControlId=195610>

<https://jobs.ca.gov/CalHrPublic/Jobs/JobPosting.aspx?JobControlId=195615>

<https://jobs.ca.gov/CalHrPublic/Jobs/JobPosting.aspx?JobControlId=195619>

They are seeking upper-Division to graduate-level students who would be interested in working on civil engineering projects related to dam safety. Their work includes structural engineering, geotechnical engineering, hydraulics, hydrology, inspections and construction management. Students are welcome to apply to all three positions since a lot of the work will be shared amongst our three technical branches. Please note the final filing date of April 8, 2020.

Interested candidates are welcomed to contact Melissa Pi directly at [Melissa.Pi@water.ca.gov](mailto:Melissa.Pi@water.ca.gov) if they have any questions about the position or job duties.

## CBC Steel Buildings

CBC and American Buildings are looking for design Engineers. They also may hire an estimating Engineer and Solar project Engineer. The solar department designs carports and rooftop steel structures to support solar panels. The engineer also does some footing design for imbedded fixed base columns and works on DSA projects developing better designs.

If you are interested in this opportunity, please fill out [this form](#) so we can get a head count of those interested and determine if a representative can come to campus for an interview.

## National Center for Sustainable Transportation

The National Center for Sustainable Transportation, led by the Institute of Transportation Studies at UC Davis, is offering summer research fellowships for undergraduate students who are interested in working with faculty and graduate students on research projects related to sustainable transportation.

Fellows will receive \$13.50 per hour for eight weeks over the summer (20 hours per week while school is in session and up to 40 hours per week when school is not in session).

Previous NCST fellowship recipients can be viewed at: <https://ncst.ucdavis.edu/undergraduate-research-fellowship-program>

See the attached flyer for more information. Applications are due by 5pm **on Friday, April 10<sup>th</sup>**.

Please feel free to reach out to Anna Espitallier, [aespitallier@ucdavis.edu](mailto:aespitallier@ucdavis.edu), with any questions.

## Bio-Rad

Bio-Rad is rapidly developing a COVID-19 test kit, and desperately needs temporary and permanent workers. Here is the link to the job site: <https://www.bio-rad.com/en-us/corporate/careers?ID=1004>

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