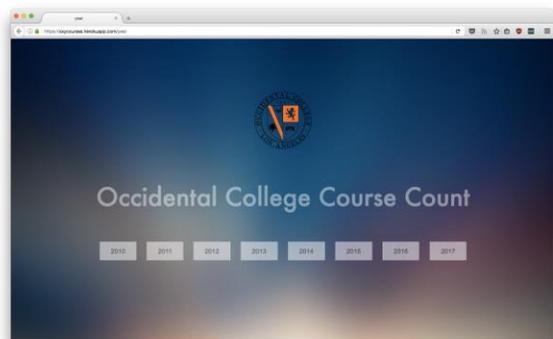## Placement

A score of 4 or 5 on the AP Computer Science exam places a student into COMP 229 (Data Structures), earning credit for completion of COMP 131. Students with transfer credit should contact the department chair to discuss their situation. All other students should begin with COMP 131 as soon as possible.

Yinbo Gao ('18) redesigned the college course catalog in a first-semester project.

"Studying computer science at a liberal arts college is so cool, there are so many paths you can take to get your degree. I mean, studying almost anything here is cool, but to learn computer science from a very interdisciplinary approach is rad."
~ **Chloe Zeller ('19)**

Meet Our Faculty:

- **Celia Chen:** Celia's research focuses on systems and software engineering, specifically on unorthodox modeling to measure and improve software quality using natural language processing.

- **Kathryn Leonard:** Kathryn studies geometric models for computer graphics, computer vision, and data analysis. With degrees in mathematics and English, she loves connecting computer science to other disciplines.

- **Justin Li:** Justin teaches in both computer science and cognitive science. He is interested in the intersection of artificial intelligence and human memory, especially as it applies to long-living knowledge-based agents in uncertain environments.

- **Jeffrey Miller:** Jeff has degrees in math, physics and computer science and worked in industry as an electrical and computer engineer for a decade. His interest in computer science lies in the areas of algorithms, applied math, and engineering types of applications.

Questions?

oxy.edu/computer-science

cs@oxy.edu

OXY
Occidental
College

Computer Science Major

Welcome new students! Computers impact every aspect of our everyday lives, from how we obtain news in the morning, to our cars, and even the way we communicate with friends. CS at Oxy is designed to give students a rigorous background, while encouraging connections to other disciplines as well as social issues related to technology.

Computer science students have graduated to:
- Top-tier graduate programs
- Careers in leading tech companies
- Entrepreneurship in the tech sector

One of Oxy's greatest strengths is the diversity of backgrounds of our students. That diversity is reflected and celebrated in our program. We invite even the merely curious to take a course in CS. We look forward to seeing you in class!

Overview of the Major

Our majors must complete:

- COMP 131: Foundation of CS
- COMP 229: Data Structures
- Calculus I
- COMP 149 OR MATH 210 and MATH 214
- COMP 239: Computer Organization
- COMP 390: Junior Seminar
- COMP 490: Senior Seminar

And choose one of three pathways:

1) **CS Pathway:** Imparts both breadth and depth to students by requiring courses in subfields such as artificial intelligence, interfaces, security, systems, and theory.
2) **Mathematics Pathway:** Similar to the CS pathway but emphasizes a core of mathematical expertise, including courses in algorithms, complexity, and upper-level mathematics.
3) CS+X Pathway: Focuses on the growing interdisciplinary role that CS plays in the world today by requiring depth in a CS subfield as well as four courses in an interdisciplinary theme.

We encourage you to meet early with a CS professor to discuss which pathway most interests you. We also invite you to meet each of our faculty members, who provide a diverse spectrum of CS experience.

Opportunities in and Around Oxy

A great college experience only begins in the classroom. Our program boasts many opportunities outside the classroom as well!

- A partnership with Caltech allowing our students to take classes there.

- Active student clubs for computer science, engineering, and peer tutoring.

- Support from the Hameetman Career Center for internships, practice interviews, professional panels and much more!

- Study abroad in Ghana, United Kingdom, Hungary, and other countries.

- Opportunity to do paid research with professors here and all over the country through summer REUs.

Stephanie Angulo ('19) worked at JPL on alarm system designs for the Deep Space Network as part of a semester-long internship.

Intro Course Preview

Our introductory course welcomes all students. Here are some projects from that course:

This version of Flappy Bird was written and drawn by Charlotte Cullip ('19).

Lily Goldner ('18) animated this beach scene.

Check the **Computer Science** webpage for more information on other courses:

- Topics in Artificial Intelligence
- Game Design
- Human-Computer Interaction
- Computer Security Practicum
- Information Theory
- Computer Graphics
- Bioinformatics
- Computational Approaches to Cognition