HUMAN CENTERED DESIGN & ENGINEERING

HUMAN CENTERED DESIGN ENGINEERS USE DATA AND DESIGN METHODS TO BUILD SYSTEMS THAT IMPROVE HUMAN-TECHNOLOGY INTERACTION.

HCDE RESEARCH AREAS

Influencing Behavior, Thinking, and Awareness

Design for Emergent Collaborations and Organizations

Low Resource and Underserved Populations

Material and Embodied Technologies

Data Science and Data Visualization

Learning in Professional and Technical Environments

WHAT DO HUMAN CENTERED DESIGN ENGINEERS DO?

Human centered design engineers create solutions to global challenges by tailoring technology to human needs and interests. By employing a broad range of research methods steeped in math and science, HCDE students investigate the interaction of people with technology and technical development. Students graduate from HCDE with a strong foundation in designing user experiences and interfaces, creating information visualizations, conducting usability research, designing for the web, and building web technologies.

WHAT PROBLEMS ARE HUMAN CENTERED DESIGN ENGINEERS TRYING TO SOLVE?

Human centered design and engineering is broad – our research and developments contribute to nearly every industry. Some of the questions HCDE students and faculty are currently asking include:

- How does disinformation propagate through social media?

- Who should own and control your personal data?

- How do we explore and gain insight from vast data sets?

- How might we develop technologies that encourage people to communicate and interact in ways that improve their quality of life?

- How do we design mobile and wearable technologies to meet the needs of the broadest range of users?

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WHERE DO HCDE ALUMNI WORK?

Air and space	*UX product design and consulting	Alaska Airlines, Boeing*
Computing, data and digital technologies	*General UX and UI product design, product management	Adobe, Amazon, Facebook, Google, Tableau*
Environment, sustainability and energy	*Sustainable freight technology, alternative energy transporation	Paccar*
Health and medicine	*Mobile application design to improve anesthesiologist efficiency	Fred Hutch, Seattle Children's Hospital, UW Medicine*
Infrastructure, transportation and society	*Public transportation	King County Metro*

SENIOR CAPSTONE DESIGN PROJECTS

The senior capstone project is the culmination of undergraduate coursework. Recent projects include:

> Designing an AI chatbot to improve mental well-being of caregivers.

> Improving the discharge process for pediatric cancer patients.

> Building a study partner network for students in online classes.

> Enhancing the shared ride experience for blind or visually-impaired users.

WHAT MAKES HCDE SPECIAL?

HCDE is a unique program, both in size and focus. Through small, project-based courses, our students graduate with a solid portfolio of work to share with potential employers. Almost all undergraduates participate in departmental research groups and develop new skills while applying their coursework in innovative ways.

HCDE undergraduates receive opportunities to prepare for their careers through the Microsoft Mentor Program, HCDE Career Fair, portfolio review workshops and company information sessions.

HOW CAN I LEARN MORE?

If you think HCDE is for you, there are many opportunities to explore more:

· Take an introductory class such as HCDE 210.

· Explore research projects happening in HCDE.

· Join the HCDE Student Association for social and professional networking events.