Design for Body Fit

Last Updated: Wed, 03/18/2026

Course prefix: ID

Course number: 4863

Section: MB

CRN
34939

Instructor first name: Roger

Instructor last name: Ball

Semester: Spring

Academic year: 2026

Course description:

Design For Body Fit

Designing products to fit the human head are challenging due to the complexity of fit. Head worn products such as eyewear, VR headsets, surgical masks and helmets need to fit users seamlessly to function effectively however fit is a complex and multilayer challenge. This course explores the four factors that influence the successful design of head worn products: anthropometrics, comfort, vanity and social acceptance.

This product design course equips students with the skills to create design solutions that are ergonomically tailored to the human body. We use an iterative prototyping method to develop design solutions with each student typically producing 3-5 prototypes. Students develop design solutions for a range of body-worn products including soft goods, footwear, eyewear, body armor, personal protective equipment (PPE), and headgear.

Applying the technologies such of 3D scanning, 3D printing, and CAD software, students produce highly refined, innovative portfolio-ready designs. Key themes include product customization and brand development, preparing students for forward-thinking roles in the sports, wearable tech and healthcare industries.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.