

Industry Applications of Virtual Design & Construction

CEE 112/212abc (2, 3 or 4 units, Letter-Grade Only)

Academic Year 2011-12: Autumn, Winter, Spring

Autumn: Friday 3:00 pm – 4:50 pm | Winter & Spring: Friday 10:00 am – 11:50 am

Autumn: Y2E2 room 292A | Winter & Spring: Y2E2 room 101

CEE112/212A [Autumn 2011: 2, 3, or 4 units]

Building upon the concept of the VDC Scorecard, CEE 112/212A investigates in the management of Virtual Design and Construction (VDC) programs and projects in the building industry. Interacting with experts and professionals in real estate, architecture, engineering, construction and technology providers, students will learn from the industry applications of Building Information Modeling and its relationship with Integrated Project Delivery, Sustainable Design and Construction, and Virtual Design and Construction. Students will conduct case studies to evaluate the maturity of VDC planning, adoption, technology and performance in practice. Students taking 3 or 4 units will be paired up with independent research or case study projects on the industry applications of VDC. No prerequisite. See CEE112/212B in the Winter Quarter and CEE112/212C in the Spring Quarter.

CEE112/212B [Winter 2012: 2, 3, or 4 units]

As a continuation of the Autumn-quarter course, CEE112/212B furthers the study of the VDC Scorecard and investigates in the management of Virtual Design and Construction (VDC) programs and projects in the building industry. Students will be paired up with industry-based VDC projects with public owners and private developers, such as GSA Public Buildings Service, the Hong Kong Mass Transit Railway, Optima, Walt Disney Imagineering, Microsoft facilities and/or other CIFE international members. Independently, students will conduct case studies and/or develop VDC and building information models (BIM) using off-the-shelf technologies for project analysis, collaboration, communication and optimization. Students will gain insights and develop skills that are essential for academic research, internships or industry practice in VDC. Prerequisite: CEE112/212A, CEE159/259C, CEE159/259D, or Instructor's Approval. See CEE112/212C in the Spring Quarter.

CEE112/212C [Spring 2012: 2, 3, or 4 units]

Following the Autumn- and Winter-quarter course series, CEE112/212C is an industry-focused and project-based practicum that focuses on the industry applications of Virtual Design and Construction (VDC). Students will be paired up with industry-based VDC projects with public owners and private developers, such as GSA Public Buildings Service, the Hong Kong Mass Transit Railway, Optima, Walt Disney Imagineering, Microsoft facilities and/or other CIFE international members. Independently, students will conduct case studies and/or develop VDC and building information models (BIM) using off-the-shelf technologies for project analysis, collaboration, communication and optimization. Students will gain insights and develop skills that are essential for academic research, internships or industry practice in VDC. Prerequisite: CEE112/212A, CEE112/212B, CEE159/259C, CEE159/259D, or Instructor's Approval.