

UNIVERSITY OF THE PACIFIC – SCHOOL OF ENGINEERING & COMPUTER SCIENCE

MSES Undergraduate Prerequisites Guidelines

Undergraduate courses MSES students must have completed prior to or during their MSES studies for the given concentration.

Students interested in computer science

Data Structures (COMP 53)

One semester of calculus

Statistics

Discrete Mathematics (COMP 47)

Algorithms (COMP 157)

Computing Theory (COMP 147)

Operating Systems (COMP 173)

Programming Language (COMP 141)

Students interested in structural Mechanics of Materials (ENGR 21)

Introduction to Structural Engineering (CIVL 100)

Students interested in electrical engineering

Calculus II (MATH 55)

ODE (MATH 57)

Data Structures (COMP 53)

Electric Circuits (ECP 41/041L)

Digital Design (ECP 71/071L)

Systems Analysis (ECP 21)

Electronics (ECP 31/131L)

Physics I (PHY 55)

Students 20)

Fluid Mechanics/L (CIVL 130/L)

Intro to Environmental Engineering (CIVL 132)

Students interested in computer engineering

Calculus II (MATH 55)

ODE (MATH 57)

Discrete Math for Computer Science (COMP 47)

Data Structures (COMP 53)

Electric Circuits (ECP 41/041L)

Digital Design (ECP 71/071L)

Systems Analysis (ECP 21)

Microcontrollers (ECP 72)

Students interested in mechanical engineering

Calculus II (MATH 55)

ODE (MATH 57)

Mech. Engr. Graphics (MECH 15)

Electric Circuits (ECP 41/041L)

Computer Programming (ENGR 9)

Statics (ENGR 20)

Materials Science (ENGR 15)

Instrumentation (ENGR 10)

Dynamics (ENGR 20)

Mechanics of Materials (ENGR 21)

Thermodynamics (ENGR 10)

Students interested in engineering management

Three semester math (incl Calculus I MATH 53)

Prob & Statistics (MATH 37 or MATH 39)

Computer Programming (ENGR 9 or COMP 51)

Project Decision Making (EMGT 170)

Engineering Project Management (EMGT 174)