



# UNIVERSITY OF THE PACIFIC

## School of Engineering and Computer Science

### *CSU, Stanislaus Articulation Agreement Civil Engineering*

| Pacific Requirement        | fulfilled by                                  | CSU Stanislaus*               |
|----------------------------|---|-------------------------------|
| <b>Mathematics</b>         |   |                               |
| MATH 51                    | Calculus I (4)                                | MATH 1410 (4)                 |
| MATH 53                    | Calculus II (4)                               | MATH 1420 (4)                 |
| MATH 55                    | Calculus III (4)                              | MATH 2410 (4)                 |
| MATH 57                    | Differential Equations (4)                    | MATH 2460 & 3230 (4)          |
| MATH                       | Math Elective (4)<br>(Probably recommended)   | MATH 1620 (4)                 |
| <b>Basic Sciences</b>      |   |                               |
| CHEM 25                    | General Chemistry (5)                         | CHEM 1100, 1102, and 1104 (5) |
| PHYS 53                    | Physics I (5)                                 | PHYS 2250 & 2252 (5)          |
| CHEM 27                    | General Chemistry II (5)                      | CHEM 1110, 1112, and 1114 (5) |
| PHYS 55                    | Physics II (5)                                | PHYS 2260 and 2262 (5)        |
| GEOL 83                    | Physical Geology (4)<br>(Basic Sci. Elective) | GEOL 2100 & 2102 (4)          |
| <b>Engineering Science</b> |   |                               |
| ENGR 5                     | Introduction to Engineering (2)               | PHSC 2200 & 2203 (3)          |
| ENGR 15                    | Engineering Graphics (3)                      | Not available                 |
| CIVL 19                    | Engineering Computing (3)                     | CS 1700 (3)                   |
| ENGR 20                    | Engineering Mechanics I (3)                   | Not available                 |
| ENGR 41                    | Electrical Science (4)                        | Not available                 |
| ENGR 45                    | Materials Science (4)                         | Not available                 |
| ENGR 120                   | Engineering Mechanics II (3)                  | Not available                 |
| CIVL 22                    | Surveying (3)                                 | Not available                 |
| CIVL 134                   | Groundwater Hydrology (4)                     | GEOL 4800 (4)                 |
| CIVL 60                    | Microbial Proc. or Biology (4)                |                               |

#### Cooperative Education

Students have the option at CSU Stanislaus of completing 5-7 months of full-time engineering-related Cooperative Education experience, possibly expediting the completion of their degree. Students should contact the California State University, Stanislaus Pre-Engineering Coordinator for additional information.

#### General Education

The School of Engineering at UOP will accept the CSU Stanislaus General Education program as satisfying our own. Additionally, all students at UOP take a 2-unit ethics course (Mentor Seminar III) during their senior year.

**(1):** Could be taken at a community college, possibly by video link.

**(E, G, S, W, N):** Students majoring in Civil Engineering may elect an option in Environmental, Geotechnical, Structural, or Water Resources Engineering or may elect No option. The following footnotes refer to the options: E-Environmental, W-Water Supply, G-Geotechnical, S-Structural, N-No Option.



# UNIVERSITY OF THE PACIFIC

## School of Engineering and Computer Science

### ***CSU. Stanislaus Articulation Agreement Computer Engineering***

| Pacific Requirement        | fulfilled by                    | CSU Stanislaus*                                 |
|----------------------------|---------------------------------|---|
| <b>Mathematics</b>         |                                 |   |
| MATH 51                    | Calculus I (4)                  | MATH 1410 (4)                                   |
| MATH 53                    | Calculus II (4)                 | MATH 1420 (4)                                   |
| MATH 55                    | Calculus III (4)                | MATH 2410 (4)                                   |
| MATH 57                    | Differential Equations (4)      | MATH 3250 (4)                                   |
| MATH                       | Math Elective (4)               | MATH 2510 or 4350 or 4600 (4)                   |
| <b>Basic Sciences</b>      |                                 |   |
| CHEM 25                    | General Chemistry (5)           | CHEM 1100, 1102, and 1104 (5)                   |
|                            | Basic Science Elective (4)      | GEOL 2100 & 2102 or CHEM 1110, 1112, & 1114 (4) |
| PHYS 53-55                 | Principles of Physics (5)       | PHYS 2250, 2252, 2260, and 2262 (5)             |
| <b>Engineering Science</b> |                                 |   |
| ENGR 5                     | Introduction to Engineering (2) | PHSC 2200 & 2203 (3)                            |
| ENGR 20                    | Engineering Mechanics I (4)     | Not available                                   |
| (Varies)                   | Engineering Computing (4)       | CS 1230 & CS 2500 (Must be C or C++)(3)         |
| PHYS 101                   | Electromagnetism (4)            | PHYS 3320 (4)                                   |

Computer Engineering students may take any two of the following to satisfy area electives: CS 2700 (COMP 71), 3000, 3100 (COMP 53), 3600, 3740 (ELEC 175), 3750 (COMP 173), 4100, 4300, 4410, 4480

#### **Cooperative Education**

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#### **General Education**

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# UNIVERSITY OF THE PACIFIC

## School of Engineering and Computer Science

### *CSU, Stanislaus Articulation Agreement Electrical Engineering*

| <b>Pacific Requirement</b> | <b>fulfilled by</b>                                      | <b>CSU Stanislaus*</b>                                    |
|----------------------------|--|---|
| <b>Mathematics</b>         |  |   |
| MATH 51                    | Calculus I (4)   | MATH 1410 (4)   |
| MATH 53                    | Calculus II (4)  | MATH 1420 (4)   |
| MATH 55                    | Calculus III (4)   | MATH 2410 (4)   |
| MATH 57                    | Differential Equations (4)                               | MATH 3250 (4)   |
| MATH                       | Math Elective (4)  | MATH 2510 or 4600 (4)                                     |
| <b>Basic Sciences</b>      |  |   |
| CHEM 25                    | General Chemistry (5)                                    | CHEM 1100, 1102, and 1104 (5)                             |
|                            | Basic Science Elective (4)                               | GEOL 2100 & 2102 or CHEM 1110, 1112, and 1114 (4)         |
| PHYS 53-55                 | Principles of Physics (5)                                | PHYS 2250, 2252, 2260, and 2262 (5)                       |
| <b>Engineering Science</b> |  |   |
| ENGR 5                     | Introduction to Engineering (2)                          | PHSC 2200 & 2203 (3)                                      |
| ENGR 20<br>(Varies)        | Engineering Mechanics I (3)<br>Engineering Computing (3) | Not available<br>CS 1230 & CS 2500 (Must be C or C++)(5)3 |
| PHYS 101                   | Electromagnetism (4)                                     | PHYS 3320 (4)   |

#### **Cooperative Education**

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#### **General Education**

The School of Engineering at UOP will accept the CSU Stanislaus General Education program as satisfying our own. Additionally, all students at UOP take a 2-unit ethics course (Mentor Seminar III) during their senior year.



# UNIVERSITY OF THE PACIFIC

## School of Engineering and Computer Science

### *CSU, Stanislaus Articulation Agreement Mechanical Engineering*

| <b>Pacific Requirement</b> |                                  | <b>fulfilled by</b> | <b>CSU Stanislaus*</b>   |
|----------------------------|----------------------------------|---------------------|--|
| <b>Mathematics</b>         |                                  |                     |  |
| MATH 51                    | Calculus I (4)                   |                     | MATH 1410 (4)  |
| MATH 53                    | Calculus II (4)                  |                     | MATH 1420 (4)  |
| MATH 55                    | Calculus III (4)                 |                     | MATH 2410 (4)  |
| MATH 57                    | Differential Equations (4)       |                     | MATH 3250 (4)  |
| MATH                       | Math Elective** (4)              |                     | e.g., MATH 2510, 4350, or 4651 (4)   |
| <b>Basic Sciences</b>      |                                  |                     |  |
| CHEM 25                    | General Chemistry (5)            |                     | CHEM 1100, 1102, and 1104 (5)  |
| PHYS 53                    | Principles of Physics (5)        |                     | PHYS 2250 and 2252 (5)   |
| PHYS 55                    | Principles of Physics (5)        |                     | PHYS 2260 and 2262 (5)   |
|                            | Basic Science Elective** (4)     |                     | e.g., CHEM 1110, 1112, and 1114, or 2010 or 3010, PHYS 3520, 4370, or 4400 (5) |
| <b>Engineering Science</b> |                                  |                     |  |
| ENGR 5                     | Introduction to Engineering (2)  |                     | PHSC 2200 & 2203 (3)   |
| ENGR 15                    | Engineering Graphics*** (3)      |                     | Not available  |
| ENGR 20                    | Engineering Mechanics I*** (3)   |                     | Not available  |
| MECH 19                    | Mechanical Engineering Prob. (4) |                     | CS 2500 (3)  |
| ENGR 45                    | Material Science*** (4)          |                     | Not available  |
| ENGR 79                    | Electrical Science*** (3)        |                     | Not available  |
| ENGR 79L                   | Electrical Science Lab*** (1)    |                     | Not available  |

#### **Cooperative Education**

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#### **General Education**

The School of Engineering at UOP will accept the CSU Stanislaus General Education program as satisfying our own. Additionally, all students at UOP take a 2-unit ethics course (Mentor Seminar III) during their senior year.

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\*\* Only one science or math elective course is required for the ME program at UOP.

\*\*\* These courses may be taken at a community college, perhaps by video link.



# UNIVERSITY OF THE PACIFIC

## School of Engineering and Computer Science

### *CSU, Stanislaus Articulation Agreement Engineering Management*

| <b>Pacific Requirement</b> |                                    | <b>fulfilled by</b> | <b>CSU Stanislaus*</b>                            |
|----------------------------|------------------------------------|---------------------|---|
| <b>Mathematics</b>         |                                    |                     |   |
| MATH 51                    | Calculus I (4)                     |                     | MATH 1410 (4)                                     |
| MATH 53                    | Calculus II (4)                    |                     | MATH 1420 (4)                                     |
| MATH 55                    | Calculus III (4)                   |                     | MATH 2410 (4)                                     |
| MATH 57                    | Differential Equations (4)         |                     | MATH 3250 (4)                                     |
| MATH 37                    | Probability & Statistics (4)       |                     | MATH 1620 (4)                                     |
| <b>Basic Sciences</b>      |                                    |                     |   |
| CHEM 25                    | General Chemistry (5)              |                     | CHEM 1100, 1102, and 1104 (5)                     |
|                            | Basic Science Elective (4)         |                     | GEOL 2100 & 2102 or CHEM 1110, 1112, and 1114 (4) |
| PHYS 53-55                 | Principles of Physics (5)          |                     | PHYS 2250, 2252, 2260, and 2262                   |
| GEOL 83                    | Physical Geology (4)               |                     | GEOL 2100 & 2102 (4)                              |
| <b>Engineering Science</b> |                                    |                     |   |
| ENGR 5                     | Introduction to Engineering (2)    |                     | PHSC 2200 & 2203 (3)                              |
| ENGR 20                    | Engineering Mechanics I (3)        |                     | Not available                                     |
| (Varies)                   | Engineering Computing (3)          |                     | CS 2500/CS 1700 (3)                               |
| <b>Business</b>            |                                    |                     |   |
| BUSI 31                    | Principles of Financial Acct. (4)  |                     | ACC 2110 (4)                                      |
| BUSI 33                    | Principles of Managerial Acct. (4) |                     | ACC 2130 (4)                                      |
| BUSI 109                   | Management and Org. Behavior (4)   |                     | MGT 4360 (4)                                      |
| <b>Economics</b>           |                                    |                     |   |
| ECON 53                    | Microeconomics (4)                 |                     | ECON 2500 (4)                                     |
| ECON 55                    | Macroeconomics (4)                 |                     | ECON 2510 (4)                                     |

#### **Cooperative Education**

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#### **General Education**

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# UNIVERSITY OF THE PACIFIC

## School of Engineering and Computer Science

### *CSU, Stanislaus Articulation Agreement Engineering Physics*

The major requirements are not included. The other courses required must be taken at UOP.

| <b>Pacific Requirement</b>                   | <b>fulfilled by</b>             | <b>CSU Stanislaus*</b>                    |
|--|---------------------------------|---|
| <b>Mathematics</b>                           |                                 |   |
| MATH 51                                      | Calculus I (4)                  | MATH 1410 (4)                             |
| MATH 53                                      | Calculus II (4)                 | MATH 1420 (4)                             |
| MATH 55                                      | Calculus III (4)                | MATH 2410 (4)                             |
| MATH 57                                      | Differential Equations (4)      | MATH 3250 (4)                             |
| MATH   | Math Elective (4)               | MATH 2510 or 4250 or 4350<br>or 4600 (4)  |
| <b>Basic Sciences</b>                        |                                 |   |
| CHEM 25                                      | General Chemistry (5)           | CHEM 1100, 1102, and 1104<br>(5)          |
| PHYS 53                                      | Principles of Physics (5)       | PHYS 2250 and 2252 (5)                    |
| PHYS 55                                      | Principles of Physics (5)       | PHYS 2260 and 2262 (5)                    |
| PHYS 111                                     | Atomic Physics (4)              | PHYS 3520 (3 units)<br>PHYS 4102 (1 unit) |
| <b>Engineering Science</b>                   |                                 |   |
| ENGR 5                                       | Introduction to Engineering (2) | PHSC 2200 & 2203 (3)                      |
| ENGR 20                                      | Engineering Mechanics I (3)     | Not available                             |
| ENGR 45                                      | Materials Science (4)           | Not available                             |
| COMP 51                                      | Intro. to Comp. Sci. (C++) (4)  | Not available                             |
| ELEC 79                                      | Electrical Circuits (3)         | Not available                             |
| ELEC 79L                                     | Electrical Circuits Lab (1)     | Not available                             |
| ENGR 120                                     | Mechanics II (Dynamics) (3)     | Not available                             |
| <b>Engineering Physics Major Requirement</b> |                                 |   |
| PHYS 101                                     | Electricity & Magnetism (4)     | PHYS 3320 (4)                             |
| PHYS 102                                     | Electrodynamics (4)             | PHYS 3330 (4)                             |
| PHYS 161                                     | Thermal Physics (4)             | PHYS 4530 (4)                             |
| PHYS 170                                     | Solid State Physics (4)         | PHYS 4560 (4)                             |
| <b>Engineering Physics Electives</b>         |                                 |   |
| PHYS 105                                     | Optics (4)                      | PHYS 4900 (4)                             |
| PHYS 140                                     | Nuclear Physics (4)             | PHYS 4450 (4)                             |
| PHYS 181                                     | Theoretical Mechanics (4)       | PHYS 3100 (4)                             |

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## ***Engineering Physics*** (Cont)

### **General Education**

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(February 10, 2005)

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