

WC

USU

Required by USU Major

| Course        | Cr | Course           | Cr  | Course Title                             | BE <sup>5</sup> | CI <sup>5</sup> | EN <sup>5</sup> | CS <sup>5</sup> | CM <sup>5</sup> | EL <sup>5</sup> | ME <sup>5</sup> |
|---------------|----|------------------|-----|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| No Equivalent |    | BENG 1880        | 3   | Quantitative Biological Systems          | X               |                 |                 |                 |                 |                 |                 |
| No Equivalent |    | BENG 2330        | 3   | Properties of Biomaterials               | X               |                 |                 |                 |                 |                 |                 |
| No Equivalent |    | BENG 2400        | 3   | Biological Thermodynamics                | X               |                 | X               |                 |                 |                 |                 |
| BIOL 202      | 4  | BIOL 1010        | 3   | Biology and the Citizen                  |                 | X               | X               | X               |                 |                 |                 |
| No Equivalent |    | BIOL 1610 + 1615 | 3+1 | Biology I                                | X               |                 |                 |                 |                 |                 |                 |
| BIOL 303      | 4  | BIOL 3300        | 4   | General Microbiology                     | X               |                 |                 |                 |                 |                 |                 |
| No Equivalent |    | CEE 1880         | 1   | CEE Orientation & Computer Applications  |                 | X               | X               |                 |                 |                 |                 |
| No Equivalent |    | CEE 2240         | 3   | Engineering Surveying                    |                 | X               | X               |                 |                 |                 |                 |
| CHEM 111      | 4  | CHEM 1210+1215   | 4+1 | Principles of Chemistry I + Lab I        | X               | X               | X               | X <sup>4</sup>  |                 |                 | X               |
| CHEM 112      | 4  | CHEM 1220+1225   | 4+1 | Principles of Chemistry II + Lab II      |                 |                 | X               | X <sup>4</sup>  |                 |                 |                 |
| CHEM 303      | 4  | CHEM 2300        | 3   | Principles of Organic Chemistry          | X               |                 | X               |                 |                 |                 |                 |
| CHEM 303      | -  | CHEM 2315        | 1   | Organic Chemistry Lab I                  | X               |                 |                 |                 |                 |                 |                 |
| CHEM 350      | 4  | CHEM 3700        | 3   | Introduction to Biochemistry             | X               |                 |                 |                 |                 |                 |                 |
| CHEM 350      | -  | CHEM 3710        | 1   | Introduction to Biochemistry Lab         | X               |                 |                 |                 |                 |                 |                 |
| CMPT 201 1    | 4  | CS 1400          | 4   | Intro to Computer Science - CS 1         |                 | X               | X               | X               | X <sup>2</sup>  | X <sup>2</sup>  | X <sup>2</sup>  |
| CMPT 2021     | 4  | CS 1410          | 3   | Intro to Computer Science - CS 2         |                 |                 |                 | X               | X               | X               |                 |
| CMPT 306 1    | 4  | CS 2420          | 3   | Algorithms & Data Structures - CS 3      |                 |                 |                 | X               | X               |                 |                 |
| No Equivalent |    | CS 2410          | 3   | Intro to Event-driven Programming & GUIs |                 |                 |                 | X               |                 |                 |                 |
| No Equivalent |    | CS 2610          | 3   | Developing Web Applications              |                 |                 |                 | X               |                 |                 |                 |
| No Equivalent |    | CS 3000          | 1   | Undergraduate Seminar                    |                 |                 |                 | X               |                 |                 |                 |
| CMPT 351      | 4  | CS 3100          | 3   | OS + Concurrency                         |                 |                 |                 | X               | X               |                 |                 |
| No Equivalent |    | CS 3810          | 3   | Organization & Architecture              |                 |                 |                 | X               |                 |                 |                 |
| No Equivalent |    | ECE 2250         | 3   | Electrical Circuits I                    |                 |                 |                 |                 | X               | X               |                 |
| No Equivalent |    | ECE 2290         | 3   | Electrical Circuits II                   |                 |                 |                 |                 | X               | X               |                 |
| No Equivalent |    | ECE 2700         | 4   | Digital Circuits                         |                 |                 |                 |                 | X               | X               |                 |
| ENGL 108      | 3  | ENGL 1010        | 3   | Introduction to Writing                  | X               | X               | X               | X               | X               | X               | X               |
| No Equivalent |    | ENGL 2010        | 3   | Intermediate Writing                     | X               | X               | X               | X               | X               | X               | X               |
| No Equivalent |    | ENGR 2010        | 3   | Engineering Mechanics - Statics          | X               | X               | X               |                 |                 |                 | X               |
| No Equivalent |    | ENGR 2030        | 3   | Engineering Mechanics - Dynamics         |                 | X               | X               |                 |                 |                 | X               |
| No Equivalent |    | ENGR 2140        | 3   | Mechanics of Materials                   | X               | X               |                 |                 |                 |                 | X               |
| No Equivalent |    | ENGR 2450        | 3   | Engineering Numerical Methods            | X               |                 |                 |                 |                 |                 |                 |
| No Equivalent |    | ENGR 2210        | 3   | Fundamental Electronics                  | X               | X <sup>3</sup>  |                 |                 |                 |                 | X               |
| No Equivalent |    | ENGR 2270        | 2   | Computer Engineering Drafting            | X               | X               | X               |                 |                 |                 |                 |
| No Equivalent |    | GEO 1110+1115    | 3+1 | Dynamic Earth                            |                 | X               |                 |                 |                 |                 |                 |
| No Equivalent |    | MAE 1200         | 2   | Engineering Graphics                     |                 |                 |                 |                 |                 |                 | X               |
| No Equivalent |    | MAE 2160         | 3   | Material Science                         |                 |                 |                 |                 |                 |                 | X               |
| No Equivalent |    | MAE 2165         | 1   | Material Science Lab                     |                 |                 |                 |                 |                 |                 | X               |
| No Equivalent |    | MAE 2300         | 3   | Thermodynamics I                         |                 | X <sup>3</sup>  |                 |                 |                 |                 | X               |
| MATH 201      | 4  | MATH 1210        | 4   | Calculus I                               | X               | X               | X               | X               | X               | X               | X               |
| MATH 2021     | 4  | MATH 1220        | 4   | Calculus II                              | X               | X               | X               | X               | X               | X               | X               |
| MATH 2031     | 4  | MATH 2210        | 3   | Multivariable Calculus                   |                 | X               |                 |                 |                 | X               | X               |
| MATH 311+363  |    | MATH 2250        | 4   | Linear Algebra & Differential Equations  | X               | X               | X               |                 |                 |                 | X               |
| MATH 311      | 4  | MATH 2270        | 3   | Linear Algebra                           |                 |                 |                 | X               | X               | X               |                 |
| MATH 363      | 4  | MATH 2280        | 3   | Ordinary Differential Equations          |                 |                 |                 |                 | X               | X               |                 |
| No Equivalent |    | MATH 3310        | 3   | Discrete Mathematics                     |                 |                 |                 | X               | X               |                 |                 |
| No Equivalent |    | MATH 5710        | 3   | Introduction to Probability              |                 |                 |                 |                 |                 | X               |                 |
| PHYS 211      | 4  | PHYS 2210 + 2215 | 4+1 | General Physics - Science I              | X               | X               | X               | X <sup>4</sup>  | X               | X               | X               |
| PHYS 212      | 4  | PHYS 2220 + 2225 | 4+1 | General Physics - Science II             |                 |                 |                 | X <sup>4</sup>  | X               | X               | X               |

<sup>1</sup>Series should be completed at one school (westminstercollege.edu).

<sup>2</sup>Mechanical Engineering requires C++ or C. Electrical/Computer Engineering requires C++.

<sup>3</sup>Civil Engineering students can choose one out of ENGR 2210 and MAE 2300.

<sup>4</sup>Computer Science students can choose either PHYS 2210&2220 or CHEM 1210&1220.

<sup>5</sup>BE= Biological Engineering, CI = Civil Engineering, EN = Environmental Engineering, CS = Computer Science, CM = Computer Engineering, EL = Electrical Engineering, ME = Mechanical Engineering.

Additional classes may be acceptable for the professional program. Contact USU for more information.

ACADEMIC YEAR  
**2017 - 18**