Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 PSU ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Appendix 1**

**2+2 Program Course Advising Table for Engineering Majors\***

**The Pennsylvania State University 2+2 Institution: CUMTB**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PSU Course** | **Credits** | **Course Title** | **PSU Majors** | **2+2 Course** | **Grade** |
| BIOL 141, 142 | 3, 1 | Physiology and Lab | Elective for E SC | No Equivalent |  |
| CAS 100 | 3 | Effective Speech | ALL | No Equivalent |  |
| CHEM 110 | 3 | Chemical Principles I | ALL except CMPSC | 12201/11A13001 |  |
| CHEM 111 | 1 | Experimental Chemistry I | ALL except CMPSC | 12231/11B13001 |  |
| CHEM 112 | 3 | Chemical Principles II | Elective for E SC ALL EMS except MNG E | 12203/11A13039 **+**11A13040 |  |
| CHEM 113 | 1 | Experimental Chemistry II | MATSE | 12232/11B13002 |  |
| CHEM 210 | 3 | Organic Chemistry I | MATSE (PLMSE), ENENG | 12204/11A13045 |  |
| CHEM 212, 213 | 3, 2 | Organic Chemistry II and Lab | MATSE (PLMSE) | No Equivalent |  |
| CMPEN 270 | 4 | Introduction to Digital Systems & Lab | CMPEN, CMPSC, E E | 13119/11A14027 |  |
| CMPSC 121 | 3 | Programming | CMPEN, CMPSC | 11A14104 |  |
| CMPSC 200/201 | 3 | Computer Programming for Engineers | ALL except B E, CMPEN, CMPSC | No Equivalent |  |
| E E 210 | 4 | Circuits and Devices | CMPEN, E E, E SC | No Equivalent |  |
| E MCH 211 | 3 | Statics | ALL except MATSE (PLMSE), ENENG | 15101/11A16001 |  |
| E MCH 212 | 3 | Dynamics | ALL except MATSE (PLMSE), ENENG | No Equivalent |  |
| E MCH 213 | 3 | Strength of Materials | ALL except ENVSE, MATSE (PLMSE), ENENG | 15102 |  |
| ECON 002 or 004 | 3 | Intro. Microecon. or Macroecon. Analysis and Policy (GS) | ALL | No Equivalent |  |
| EDSGN 100 | 3 | Introduction to Engineering Design  | ALL except CMPEN, ENVSE, MATSE, PNG E and ENENG | 13202/11A14008 or 13205/11A14011 |  |
| ENGL 015 | 3 | Rhetoric and Composition | ALL | 17103/11A18003 |  |
| GEOSC 001 | 3 | Physical Geology | PNG E, ENVSE, MNG E | 11121/11A12015 |  |

 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 PSU ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2+2 Program Course Advising Table for Engineering Majors\***

**The Pennsylvania State University** **2+2 Institution: CUMTB**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PSU Course** | **Credits** | **Course Title** | **PSU Majors** | **2+2 Course** | **Grade** |
| MATH 140 | 4 | Calculus and Analytic Geometry I | ALL | 16101/11A17001 |  |
| MATH 141 | 4 | Calculus and Analytic Geometry II | 16102/11A17002 |  |
| MATH 220 | 2 | Matrices | ALL except B E, PNG E, ENENG | 16108/11A17006 |  |
| MATH 231 | 2 | Calculus and Vector Analysis | ALL except ENVSE, MNG E | Part of 16102 |  |
| MATH 251 | 4 | Ordinary and Partial Differential Equations | ALL | No Equivalent |  |
| M E 201/300 | 3 | Introduction to Thermal Science/ Engineering Thermodynamics I | ALL except CMPEN, E E, E SC, MNG E and ENENG | No Equivalent |  |
| PHYS 211 | 4 | General Physics (Mechanics) | ALL | 16401/11A17010 **+** 16404/11B17001 |  |
| PHYS 212 | 4 | General Physics (Electricity and Magnetism) | 16402/11A17011 **+** 16405/11B17002 |  |
| PHYS 213 | 2 | Fluids & Thermodynamics | E E, E SC, PNG E, MNG E | No Equivalent |  |
| PHYS 214 | 2 | Waves & Quantum Physics | ALL except B E, ENVSE, PNG E, MNG E, and ENENG | No Equivalent |  |
| STAT 401/ 418 | 3 | Experimental Methods/ Probability | CMPEN, E E | No Equivalent |  |
| ***General Education Electives***Arts Electives (GA) | 6 | e.g. Architecture, Art History, Integrative Arts,Landscape Architecture, Music, Theatre Arts | ALLPNGE, MNG E, and ENENG require an ethics elective |  |  |
| Health (GHA) | 3 | Health Education and Exercise and Sport Activities | 16501/11A17015 **–** 16503/11A17017 |  |
| Humanities Electives (GH) | 6 | e.g. American Studies, Classics, History, Humanities,Multi-Ethnic Studies, Philosophy, Religious Studies | 17301/11A19004, 17302/11A19002, 17303/11A19001 |  |
| Social & Behavioral Science Elective (GS) | 3 | e.g. Anthropology, Human Development, Political Science, Psychology, Sociology | 17322 **–** 17325 |  |

\* College of Engineering (EN) Majors: \*College of Earth and Mineral Sciences (EMS) Majors

 B E Biological Engineering ENENG Energy Engineering

CMPEN Computer Engineering ENVSE Environmental Systems Engineering

CMPSC Computer Science MATSE Material Science and Engineering

E E Electrical Engineering (PLMSE) Polymer Science and Engineering Option of MATSE

E SC Engineering Science MNG E Mining Engineering

NUC E Nuclear Engineering