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| Appendix 3.1 - KERN FAMILY FOUNDATION (KFF) MAKER MINOR (6060) |
| Name: Student #: | Major: Major Code:  |
| Minor Advisor: Dr. Jim Brenner | Major Advisor: |
| COURSE # | COURSE | CR. | SEM. | GRADE |
| *12 CREDITS OF REQUIRED COURSES (Group A):*  |
| HON 1000 | Entrepreneurially Minded Learning | 1 |  |  |
| CHE 3260 OR BME 3260 OR ECE 2111 OR ECE 4991 | Materials Science and Engineering (required for CHE's, MEE's, and AEE's) OR Biomaterials (required for BME's) OR Circuit Theory 1 (required for ECE's) OR Electrical and Electronic Circuits (required for all other engineers) | 3 |  |  |
| CHE 4568/5568 OR BME 4568/5568 | The Basics of Making | 3 |  |  |
| CHE 1101 | Introduction to Chemical Engineering 1 (required for ChE's) | 2 |  |  |
| CSE 150x | Computer Science (req'd for MEE's, AEE's, ECE's, & CS; preferably new CSE 1509) | 3 |  |  |
| *2+ CREDITS OF* | *CAD + Machine Shop Experience from Group B* |  |  |  |
| AEE 1202 | Aerospace Practicum (required for AEE's) | 2 |  |  |
| MEE 1024 | Introduction to Mechanical Engineering (required for MEE's) | 3 |  |  |
| OCE 2002 | Computer Applications in Ocean Engineering (required for OCE's) | 3 |  |  |
| CVE 1001 | Computer Applications Lab (required for CVE's) | 1 |  |  |
| CVE 2083 | Construction Measurements Lab (required for CVE's) | 1 |  |  |
| *+3 CREDITS OF* | *Signal Processing from Group C* |  |  |  |
| BME 3222 | Biosignals and Applications (required for BME's) | 3 |  |  |
| ECE 3222 | Signals and Systems (required for ECE's) | 3 |  |  |
| MEE 5316 | Mechatronics | 3 |  |  |
| *+3 CREDITS OF* | *Visualization Requirement from Group D* |  |  |  |
| BME 4410/5259 OR ECE 5259 | Introduction to Biomedical Imaging OR Medical Imaging | 3 |  |  |
| MEE 5553 | Advanced CAD and Design Automation | 3 |  |  |
| MEE 3024 | Computer-Aided Engineering (CAE; required for MEE's) | 3 |  |  |
| MEE 2024 | Solids Modeling & 3D Mechanical Design Principles (required for MEE's) | 3 |  |  |
| BIO 5515 | Pharmacology and Drug Design | 3 |  |  |
| BIO 5522 | Bioinformatics, Genomics and Proteomics | 3 |  |  |
| CHM 5111 | Advanced Topics in Physical Chemistry | 3 |  |  |
| CVE 3042 OR CVE 3052 | Water and Wastewater Systems for Land Development OR Municipal Water and Wastewater Systems (One or other req'd for CVE's) | 3 |  |  |
| CSE 4285 | Game Design | 3 |  |  |

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| *+3 CREDITS OF* | *Group E Electives* |  |  |  |
| ECE 4991 | Electrical and Electronic Circuits (for ChE's only; other majors require it) | 3 |  |  |
| ECE 4342 | Virtual Instrumentation Lab  | 3 |  |  |
| CHE 4567/5567 OR BME 4050/5790 | Nanotechnology  | 3 |  |  |
| BME 4252 | Biomedical Measurements & Imstrumentation | 3 |  |  |
| BME 4410/5500 | Tissue Engineering | 3 |  |  |
| BME/CHE 5300 | Biomaterials | 3 |  |  |
| ECE 3551 | Microcomputer Systems 1 | 4 |  |  |
| MEE 5318 | Instrumentation and Measurement Systems | 3 |  |  |
| MEE 5650 | Robotics | 3 |  |  |
| MEE 5660 | Robotic Control | 3 |  |  |
| MEE 5552 | Design for Manufacturing Assembly | 3 |  |  |
| OCE 4531 | Instrumentation Design and Measurement Analysis | 3 |  |  |
|  |  |  |  |  |
|  | A second course from Group D | 3 |  |  |
|  | TOTAL CREDIT HOURS |  |  |  |
|  | TOTAL CREDIT HOURS REQUIRED | 24-25 |  |  |
|  *(\*) Course must be listed on a Course Substitution Form attached with the student’s Petition to Graduate* *APPROVALS* |
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| Minor Advisor Date | CHE Program Chair Date |

 Major Advisor Date Major Program Chair Date