**-2018- B.A.E./M.A.E. Integrated Program Requirements – Mechanical**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | Course Numbers | Course Name | Transcript /Degree Audit Accounting b,c | | |
|  | IUG/  GRC | BAE d | MAE |
| BAE Required Courses a | MAE Required Courses a |  | AE 454 | Advanced HVAC | GRC | On Grad  Transcript c | 3 |
|  | AE 467 | Advanced Building Electrical System Design | GRC | On Grad Transcript c | 3 |
|  | AE 457 | HVAC Control Systems | IUG | 3 | 3 |
|  | AE 458 | Advanced Acoustics | IUG | 3 | 3 |
|  | AE557 | Central Cooling Systems  (BAE Department Elective) | IUG | 3 | 3 |
|  | AE 558  Or  AE 552 | Central Heating Systems  Indoor Air Quality | IUG | 3 | 3 |
|  |  | AE 882e | MAE Capstone Project (replaces AE 482 for BAE/MAE Students) | GRC |  | 3 |
|  |  | MAE Elective (500-level) | GRC |  | 3 |
|  |  | MAE Elective (500-level) | GRC |  | 3 |
|  |  | MAE Elective (500-level) | GRC |  | 3 |
|  | |  |  | Credits that count toward BAE OR MAE (GRC) only |  | 142 | 18 |
|  | |  |  | Credits that count toward both programs (IUG) | 12 | 12 |
|  | |  |  | Total Credits on Transcript | 154 | 30 |
|  | |  |  | Total Credits BAE+MAE | 172 | |

**a**. Integrated BAE/MAE students are required to complete all BAE Required Courses in the 5 year plan and MAE Required Courses, noted above, to fulfill the integrated BAE/ MAE degree requirements.

**b**. Of the 172 credits required for the integrated program, 12 **IUG** credits will appear on both transcripts resulting in 154 credits on the undergraduate transcript and 30 credits on the graduate transcript. Because the degree audit only accounts for courses related to the BAE only program, it will not always properly reflect progress in the integrated program. Credits labeled as **GRC** will only appear on the graduate transcript. **Students must register for these courses on the appropriate transcript. Please see “Registration Instructions for BAE/MAE Students” for details.**

**c**. Six credits required for the 160 credit BAE program are accounted for in the graduate component of the BAE/MAE program. These credits are waived from the undergraduate degree audit.

**d.** The BAE degree requirements listed on this matrix is based on the 2016 Program.

**e.** AE 882 (or AE 897G) combined with AE 497 replaces AE 482 for MAE students

**Mechanical B.A.E./M.A.E. and M.A.E. Electives:**

AE 542 - Building Enclosure, Science & Design (Spring)

AE 551 Combined Heat and Power Systems (Spring)

AE 552 - Air Quality in Buildings (Fall)

AE 555 – Building Automation and Control Systems (Fall)

AE 556 – Solar Engineering of Thermal Processes (Spring)

AE 559 - Computational Fluid Dynamics (Spring)

M E 512 Heat Transfer--Conduction

M E 513 Heat Transfer--Convection

M E 514 Heat Transfer--Radiation

Other Relevant M E 500-level courses (with approval)

Any relevant AE 500-level course (with approval)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Student Name:**  **Date:** | | | | |
| **BAE/MAE Degree Planning Sheet Fall 2018 Applications: Part 1** | | | | |
| Courses in Black are unmodified BAE requirements | | |  | |
| Courses in Blue are modified BAE requirements for the MAE | | | | |
| Courses in Red are new requirements for the MAE | | | | (All Options) |
| **BAE/MAE Degree Requirements** | **Courses taken before the Fall 17 Semester (✓)** | **Courses Proposed for Fall 17 and beyond (✓)** | | |
| AE 124S |  |  | | |
| AE 202 |  |  | | |
| AE 221 |  |  | | |
| AE 222 |  |  | | |
| AE 308 |  |  | | |
| AE 309 |  |  | | |
| AE 310 |  |  | | |
| AE 311 |  |  | | |
| AE 372 |  |  | | |
| AE 481W |  |  | | |
| AE 882\*+AE497G |  |  | | |
| Arch 130A |  |  | | |
| Arch 130A |  |  | | |
| Arch 100 |  |  | | |
| Arch 441 |  |  | | |
| Arch 443 |  |  | | |
| ART H 202 |  |  | | |
| CAS100A/B |  |  | | |
| Chem 110 |  |  | | |
| Chem 111 |  |  | | |
| E MCH 211 |  |  | | |
| E MCH 213 |  |  | | |
| E MCH212 |  |  | | |
| Econ 2, 4, 14 |  |  | | |
| EDSGN 130 |  |  | | |
| EE211 |  |  | | |
| Engl 15 |  |  | | |
| Engl 202C |  |  | | |
| GH (3 CR) |  |  | | |
| GH (3 CR) |  |  | | |
| GHA (3 CR) |  |  | | |
| GS (3 CR) |  |  | | |
| Math 140 |  |  | | |
| Math 141 |  |  | | |
| Math 220 |  |  | | |
| Math 231 |  |  | | |
| Math 250 |  |  | | |
| ME 201 |  |  | | |
| Phys 211 |  |  | | |
| Phys 212 |  |  | | |
| Phys 213 |  |  | | |
| Stat 401 |  |  | | |

All courses noted as electives, GS, GH, etc. should be noted as a specific course as taken or proposed.

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name:**  **Date:** | | | |
| **BAE/MAE Degree Planning Sheet Fall 2018 Applications: Part 2** | | | |
| Courses in Black are unmodified BAE requirements | |  | |
| Courses in Blue are modified BAE requirements for the MAE | | | |
| Courses in Red are new requirements for the MAE | | | (Mechanical) |
| **BAE/MAE Degree Requirements** | **Courses taken before the Fall 17 Semester (✓)** | **Courses Proposed for Fall 17 and beyond (✓)** | |
| AE 404 |  |  | |
| ME 320 |  |  | |
| ME 410 |  |  | |
| Arch 442 |  |  | |
| AE 455 |  |  | |
| AE 453 |  |  | |
| Department Elective (3cr) |  |  | |
| AE 454\* |  |  | |
| AE 458\* |  |  | |
| AE 467\* |  |  | |
| AE 457\* |  |  | |
| AE 557\* |  |  | |
| AE 558\* |  |  | |
| MAE Elective (3cr)\* |  |  | |
| MAE Elective (3cr)\* |  |  | |
| MAE Elective (3cr)\* |  |  | |
| \* These courses comprise the 30 credit MAE degree.  All courses noted as electives, GS, GH, etc. should be noted as a specific course as taken or proposed. | | | |

**Proposed Schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Semester 7: Fall 201\_** | | **Semester 8: Spring 201\_** | | **Summer 201\_** | |
| AE 454 |  | AE 455 |  |  |  |
| ME 320 |  | AE 457 |  |  |  |
| AE 404 |  | AE 467 |  |  |  |
| AE 453 |  | AE 5\_\_ |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Total Credits** |  | **Total Credits** |  | **Total Credits** |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Semester 9: Fall 201\_** | | **Semester 10: Spring 20\_\_** | | **Summer 20\_\_ or** (Choose 1)  **Semester 11: Fall 20\_\_** | |
| AE 481W | 4 | AE 882 (or 897G) | 3 |  |  |
| AE 458 | 3 | AE 497G | 1 |  |  |
| AE 557 |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Total Credits** |  | **Total Credits** |  | **Total Credits** |  |

## BAE/MAE Program Proposal – Mechanical (Fall 2018) M

C

Department of Architectural Engineering - Integrated Bachelor of Architectural Engineering / Master of Architectural Engineering Degree Program

**Student Name:** Date:

**Proposed Program of Study:** (30 credits - approved sequences are provided on the first page of this document): These courses, when approved, will comprise a student's MAE degree program. A minimum 3.0 Grade Point Average is required in these courses to receive the MAE degree with the BAE.

If you wish to propose an alternate course than ones listed below, please put a line through the course you plan to drop from this and enter the new course in the blank provided. For courses listed as electives in the BAE/MAE program, please enter the course number and title. Student should state reasons for any substitutions. Use a separate page if needed.

**ENTER THE PROPOSED FOUR ADDITIONAL COURSES YOU PLAN TO TAKE BELOW**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Course Numbers | Course Name | Degree Requirements | | Proposed Substitution | |
| BAE c | MAE | Course No. | Course Name |
| AE Option Specific Courses | MAE Required Courses | AE 454 | Advanced HVAC | Note C | 3  GRC |  |  |
| AE 467 | Advanced Building Electrical System Design | Note C | 3  GRC |  |  |
| AE 457 | HVAC Control Systems | 3  IUG | 3  IUG |  |  |
| AE 458 | Advanced Acoustics | 3  IUG | 3  IUG |  |  |
| AE557 | Central Cooling Systems  (BAE Department Elective) | 3  IUG | 3  IUG |  |  |
| AE 558 | MAE Elective (500-level) b | 3  IUG | 3  IUG |  |  |
|  | AE 882 a | Capstone Project for BAE/MAE Students (or AE 897G) |  | 3  GRC |  |  |
|  | MAE Elective (500-level) b |  | 3  GRC |  |  |
|  | MAE Elective (500-level) b |  | 3  GRC |  |  |
|  | MAE Elective (500-level) b |  | 3  GRC |  |  |

a When combined with AE 497, this replaces AE 482 for MAE students

b A specific course must be listed on this page for electives and worked in the schedule on the previous page.

c These courses are accounted for in the graduate component of the BAE/MAE program. See first page for more information on degree requirement accounting.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Graduate Program Officer)