The curriculum of B.S. Major in systems engineering is being changed by removing the “Business Track” and all business elective courses because:

1. Based on the performance of the students in the senior design course, it was observed that the students had difficulty during the understanding and implementation of technical knowledge. Currently, not all students take enough upper level engineering courses.

2. To improve the curriculum, the Engineering Advisory Board of TAMIU recommended that the Business track should be removed from the curriculum and students should be advised to complete the senior level engineering courses to become technically sound future engineers.

3. Based on ABET accreditation regulation, all courses should be offered before applying for the ABET accreditation. With the proposed changes we will be able to offer the engineering courses on a regular basis.

Minor: Add: ___ Delete: ___ Change: ___ Attach new/changed minor. If in current online catalog, provide change and attach text with changes in red.

College Introductory Pages: Add information: ___ Change information: ___ Attach new/changed information. If in current online catalog, provide change and attach text with changes in red.

Other: Add information: ___ Change information: ___ Attach new/changed information. If in
current online catalog, provide change and attach text with changes in red.

**Approvers:**

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04/2011
# System Engineering 4-Year Degree Plan (Revised March 2011)

**Previous Degree Plan**

*See Appendix A Core Curriculum and Optional Course Information.*

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| **SOPHOMORE YEAR**   |       |                          |       |
| PHYS 2126 University Phys II Lab | 1     | ENGR 2105 Electrical Engr Lab | 1     |
| PHYS 2326 University Physics II | 3     | ENGR 2305 Electrical Engineering | 3     |
| ENGL 2311 Technical Writing | 3     | ENGR 2372 Intro Design Exps | 3     |
| ENGR 1204 Engineering Graphics | 2     | ENGR 2376 Cons Prins Thrml Engr | 3     |
| ENGR 2103 Statics & Dynamics Lab | 1     | MATH 3310 Intro to Linear Algebra | 3     |
| ENGR 2303 Statics & Dynamics | 3     | Visual/Perform Arts* | 3     |
| MATH 2415 Calculus III | 4     |                          |       |
| **Total**             | 17    |                          | 16    |

| **JUNIOR YEAR**      |       |                          |       |
| HIST 1301 The U.S. to 1877 | 3     | HIST 1302 The U.S. Since 1877 | 3     |
| SENG 3300 Engineering Economics | 3     | SENG 3330 Operations Research I | 3     |
| SENG 3310 Intro to Control Systems | 3     | SENG 3350 Prod Plang & Control | 3     |
| SENG 3320 Engr Modeling & Design | 3     | SENG 3340 Robotics & Automation | 3     |
| SENG 3380 Engineering Statistics | 3     | Soc/Behavioral Sci* | 3     |
| Activity/Wellness*   | 1     | ENGL Survey of Literature* | 3     |
| **Total**            | 16    |                          | 18    |

| **SENIOR YEAR**      |       |                          |       |
| SENG 3304 Engr Proj Mgt & Proposal | 3     | BUS/SENG Track² | 3     |
| BUS/SENG Track³      | 3     | BUS/SENG Track³ | 3     |
| BUS/SENG Track³      | 3     | BUS/SENG Elective² | 3     |
| BUS/SENG Track³      | 3     | SENG 4390 SE Senior Dgn Proj | 3     |
| BUS/SENG Track³      | 3     |                          |       |
| **Total**            | 15    |                          | 12    |

**TOTAL SEMESTER CREDIT HOURS:** 126
Degree Requirements for the BS with a Major in Systems Engineering

1. **Hours Required:** A minimum of 126 semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the “Requirements for Graduation” section of this catalog.

2. **University Core Curriculum:** 42 SCH as outlined in the suggested plans and as specified in the “Requirements for Graduation”. MATH 2413 must be taken as part of the core.

3. **Major:** 51 SCH including COSC 1316, 1336, ENGR 1201, 1202, 1204, 2103, 2303, 2105, 2305, 2372, 2376, SENG 3300, 3301, 3310, 3320, 3330, 3340, 3350, 3380, and SENG 4390.


5. **MATH:** 12 SCH including 1 SCH surplus from core and MATH 2414, MATH 2415, and MATH 3310.

6. **Business/Systems Engineering Electives:** 3 SCH selected from BA 3320, BA 4199-4399, MKT 4310, MKT 4390, SENG 4370, SENG 4380, SENG 4385, SENG 4195-4395, SENG 4199-4399, SENG 4152-4352.

### Systems Engineering—Tracks

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### Electives

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# System Engineering 4-Year Degree Plan (Revised March 2012)

## Revised Degree Plan

*See Appendix A Core Curriculum and Optional Course Information.

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**TOTAL SEMESTER CREDIT HOURS: 126**

Degree Requirements for the BS with a Major in Systems Engineering

1. **Hours Required:** A minimum of 126 semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the “Requirements for Graduation” section of this catalog.

2. **University Core Curriculum:** 42 SCH as outlined in the suggested plans and as specified in the “Requirements for Graduation”. MATH 2413 must be taken as part of the core.

3. **Major:** 66 SCH including COSC 1136, COSC 1336, ENGR 1201, ENGR 1202, ENGR 1204, ENGR 2103, ENGR 2303, ENGR 2105, ENGR 2305, ENGR 2372, ENGR 2376, SENG 3300, SENG 3304, SENG 3310, SENG 3320, SENG 3330, SENG 3337, SENG 3340, SENG 3350, SENG 3370, SENG 3380, SENG 4315, SENG 4350, SENG 4360, and SENG 4390.

   **Required Prescribed Track:** 18 SCH from Business or Systems Engineering. Business Track: BA 4390, MIS 3310, MKT 3310, TIL 3310, TIL 3311, TIL 3340. Systems Engineering Track: SENG 3370, SENG 4330, SENG 4340, SENG 4350, SENG 4360, SENG 4315.

4. **MATH:** 12 SCH including 1 SCH surplus from core and MATH 2414, MATH 2415, and MATH 3310.

5. **Business/Systems Engineering Electives:** 3 SCH selected from BA 3320, BA 4199-4399, MKT 4310, MKT 4390, SENG 4330, SENG 4340, SENG 4370, SENG 4380, SENG 4385, SENG 4152-4352, SENG 4195-4395, and SENG 4199-4399.

### Systems Engineering Electives

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