B.S.E. in **COMPUTER ENGINEERING** (125 credits) Date _____

ID _____ **FALL 2017** Catalog Year Curriculum Sheet

DEARBORN DISCOVERY CORE (DDC) Requirements 24

WRITTEN AND ORAL COMM. (6 credits)
Composition Placement Exam required
COMP 105 (3) and
COMP 270 (3)
Both required if not taken to fulfill DDC Written and Oral Communication

HUMANITIES AND THE ARTS (6 credits)
See DDC approved list in Degree Works or
HTTPS://APP.SMARTSHEET.COM/B/PUBLISH?EQBCT=DAFF687F800B4FE89910A9CEA66B1627

SOCIAL AND BEH. ANALYSIS (9 credits)
ECON 201 or ECON 202 (3 cr) is REQUIRED
If not taken in fulfillment of DDC Soc. and Beh. Analysis

Other (6 credits) must be chosen from DDC approved list in Degree Works or
HTTPS://APP.SMARTSHEET.COM/B/PUBLISH?EQBCT=DAFF687F800B4FE89910A9CEA66B1627

INTERSECTIONS (6 credits)
ENGR 400 (3 cr) is REQUIRED

Other (3 credits) must be chosen from DDC approved list in Degree Works or
HTTPS://APP.SMARTSHEET.COM/B/PUBLISH?EQBCT=DAFF687F800B4FE89910A9CEA66B1627

Important DDC Notes:

- DDC requirements apply to Freshmen admitted fall 2015 and later, and to Transfers admitted fall 2017 and later.
- Many DDC courses fulfill multiple categories. However, a single DDC course may be used for a **maximum of three** DDC categories
- CE students MUST graduate with a minimum **125 credits**

** **Beware NO-CREDIT courses**. **
NO-CREDIT listed at end of CECS Handbook:

https://umich.app.box.com/s/6a5c4j9hwlctnppzy7o2xjmvlrtumvoj

BASIC PREP Requirements 37

INTRO to ENGINEERING
ENGR 100 (2)

MATHEMATICS (16)
(***Fulfills DDC Quant. Thinking)***
MATH 115 (4) *Calculus I*
MATH 116 (4) *Calculus II*
MATH 205 (3) *Calculus III*
MATH 216 (3) *Diff Equations*
MATH 217 (2) *Matrix Algebra*

CHEMISTRY and PHYSICS (12)
(Fulfills DDC Natural Sciences)
CHEM 144 (4)
PHYS 150 (4)
PHYS 151 (4)

DISCRETE MATH & PROB/STATS
ECE/MATH 276 (4) *Discrete Math*
IMSE 317 (3) *Engr Prob/Stats*

See separate curriculum sheet for information on the optional concurrent BSE degree in Electrical and Computer Engineering. The concurrent degree requires additional 16 credits.

PROFESSIONAL Requirements 64

ECE CORE – 5 courses (20 credits)
ECE 210 (4) *Circuits*
ECE 270 (4) *Computer Methods I*
ECE 273 (4) *Digital Systems*
ECE 311 (4) *Electronics I*
ECE 3731 (4) *Microprocessors and Embedded Systems*

CE CORE – 8 courses (28 credits)
ECE 370 (4) *Adv Software Techn in CE*
ECE 375 (4) *Computer Architecture*
ECE 471 (4) *Computer Networks*
ECE 473 (4) *Embedded Systems*
ECE 475 (4) *Computer Hardware*
ECE 478 (4) *Operating Systems*
ECE 4982 (2) *Computer Engr Design I*
ECE 4984 (2) *Computer Engr Design II*
(Senior Design Courses fulfill DDC Upper-Level Writing and Capstone Experience)

PROFESSIONAL ELECTIVES (6-8 crdts)
ECE 3171 (4) *Analog & Discr Signals & Sys*
ECE 387 (4) *Digital Forensics I*
ECE 413 (3) *Introduction to VLSI Design*
ECE 428 (3) *Cloud Computing*
ECE 433 (4) *Multimedia Technology*
ECE 434 (4) *Machine Learning in Enginr*
ECE 435 (4) *Mobile/Smart Devices & Tech*
ECE 438 (4) *Web Enginr Principles & Tech*
ECE 467 (4) *Digital Forensics II*
ECE 4881 (3) *Introduction to Robot Vision*
Notes: Students receive credit for only one from ECE 3171, ECE 317, and ECE 3801.

APPLIED BUSINESS Course (3)
ENGR 400 (3) Applied Bus Techniques
(Fulfills DDC Critical and Creative Thinking and 3 credits of Intersections)

APPROVED ELECTIVES (5-7 credits)
A partial list of approved electives:
ECE 3171, ECE 319, ECE 385, ECE 387, ECE 414, ECE 415, ECE 428, ECE 433, ECE 434, ECE 435, ECE 4361 [or 436], ECE 438, ECE 4432 [or 443], ECE 4431, ECE 446, ECE 450, ECE 460, ECE 467, ECE 480, ECE 4881, ECE 491, ECE 4951, ENGR 350, IMSE 3005, IMSE 381, IMSE 421, IMSE 4425, IMSE 4545, ME 230, ME 260 *or* ME 265, or other CECS courses with approval from student's advisers.
Note: Credit for only one from ECE 3171, ECE 317, and ECE 3801.
Note: **Professional Electives and Approved Electives must total at least 13 credits**.

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