

## IDES Major – *Engineering Science Studies concentration* Guideline

Semester 1			Semester 2		
CHM 11500	General Chemistry	4	GEN ED	GEN ED (Found Outcome OC) <sup>2</sup>	3
GEN ED	GEN ED (Found Outcome WC) <sup>1</sup>	3	ENGR 13200	TRANS IDEAS TO INNOV II	2
ENGR 13100	TRANS IDEAS TO INNOV I	2	MA 16600	PL ANLYGEO CALC II	4
MA 16500	PL ANLY GEO CALC I	4	PHYS 17200	MODERN MECHANICS	4
			SCI SEL	FYE SCIENCE SELECTIVE	3
	Total	13		Total	16
Semester 3			Semester 4		
AREA	AREA ELECTIVE <sup>3</sup>	3	AREA	AREA ELECTIVE <sup>3</sup>	3
IDE 30100	PROF. PREP IN IDE SEMINAR	1	AREA	AREA ELECTIVE <sup>3</sup>	3
MFET 16300	GRAPH COM & SPAT ANLY <sup>4</sup>	2	ENGR ELECTIVE	ENGINEERING ELECTIVE(20000+ level) <sup>5</sup>	2
ENGR ELECTIVE	ENGINEERING ELECTIVE(20000+ level) <sup>5</sup>	3	ENGR ELECTIVE	ENGINEERING ELECTIVE(20000+ level) <sup>5</sup>	3
MA 26100	MULTIVARIATE CALCULUS	4	MA 26200	LIN ALG AND DIF EQU <sup>7</sup>	4
PHYS 24100	ELECTRICITY & OPTICS <sup>6</sup>	3			
Total		16	Total		15
Semester 5			Semester 6		
AREA	AREA ELECTIVE <sup>3</sup>	3	AREA	AREA ELECTIVE <sup>3</sup>	3
AREA	AREA ELECTIVE <sup>3</sup>	3	ENGR ELECTIVE	ENGINEERING ELECTIVE(20000+ level) <sup>5</sup>	3
AREA	AREA ELECTIVE <sup>3</sup>	3	GEN ED	GEN ED (30000+ level or non-intro) <sup>9</sup>	3
ENGR ELECTIVE	ENGINEERING ELECTIVE(20000+ level) <sup>5</sup>	3	GEN ED	GEN ED (Found Outcome BSS) <sup>10</sup>	3
GEN ED	GEN ED (Found Outcome H) <sup>8</sup>	3	IDE 36000	MDE STATISTICS <sup>11</sup>	3
	Total	15		Total	15
Semester 7			Semester 8		
AREA	AREA ELECTIVE <sup>1</sup>	3	AREA	AREA ELECTIVE <sup>3</sup>	3
ENGR SLECTIVE	ENGINEERING SELECTIVE(design) <sup>12</sup>	3	AREA	AREA ELECTIVE MBSE <sup>3</sup>	3
GEN ED	GEN ED (Found Outcome STS) <sup>13</sup>	3	ENGR ELECTIVE	ENGINEERINGELECTIVE(30000+leveL) <sup>5</sup>	3
GEN ED	GEN ED <sup>5</sup>	3	ENGR ELECTIVE	ENGINEERINGELECTIVE(30000+leveL) <sup>5</sup>	3
IE 34300	ENGINEERING ECONOMICS <sup>14</sup>	3	GEN ED	GEN ED (300 level or non intro) <sup>9</sup>	3
	Total	15		Total	15

<sup>1</sup>Written Communication University foundational outcome. Courses can be found at:

<http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>

<sup>2</sup>Oral Communication University foundational outcome. Courses can be found at:

<http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>

<sup>3</sup>Area classes are chosen based on a student's educational objectives. These classes can be used to fulfill minor requirements. MBS Area includes MA, BIOL, CHM, PHYS, EAPS and SLHS

<sup>4</sup>other options include CM 16400; THTR 25400, 55400

<sup>5</sup>Engineering electives are chosen based on a student's educational objectives. For this plan of study, 30 total credits of engineering classes 200+ level are required with at least 15 of those 30 credits at 300+ level.

<sup>6</sup>sophomore science selective. Other options include PHYS 27200 or BIOL 11000, 20300, 22100, 23000 23100 or CHM 11600, 25500, 25700, 26100, 32100, or EAPS 10400, 10500, 10900, 11100, 11200, 11300, 11600, 11700, 12000, 13800, 17100 (May not be the same course used as FYE Science Selective.)

<sup>7</sup>other option MA 26500 + MA 26600

<sup>8</sup>Humanities University foundational outcome. Courses can be found at:

<http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>

<sup>9</sup>General education courses can be taken from the College of Liberal Arts, the Krannert School of Management, and/or the Honors College, etc. provided such courses are not focused primarily on engineering, technology, the natural sciences, or mathematics. Consult with academic advisor for acceptable general education courses.

<sup>10</sup>Behavioral/Social Sciences University foundational outcome. Courses can be found at:

<http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>

<sup>11</sup>other options include CHE 32000, IE 23000, IE 33000, STAT 35000, STAT 51100

<sup>12</sup>option must be approved, consult with academic advisor. Some examples are: ABE 33000, ABE 43500, AAE 25100, CE 31100, CE 45600, CE 47000, ECE 27000, EPCS 30000+ level, IDE 38500, IE 38600, ME 26300(CODO from ME only), ME 35400, ME 41300, ME 44400

<sup>13</sup>Science Technology and Society University foundational outcome. Courses can be found at:

<http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html> If EPCS is used to satisfy this outcome, 3 credits of EPCS must be taken.

<sup>14</sup>other option ECON 2510000 + ECON 25200

### **Additional Requirements:**

A course listed on the Concentration Guideline *is not a guarantee that the course will be accessible/made available to a student*. Lack of availability could be due to any number of circumstances beyond the control of either student or program.

Engineering credits: A minimum 30 credits at 200+ level, of which at least 15 credits are at 300+ level. Maximum number of credits in any one engineering discipline is 24. It is the student's responsibility to see that all prerequisites are met for selected courses.

**Math + Basic Science + Engineering credits:** A minimum of 44 credits of MBSE credits (that do not already fulfill FYE requirements) are required. The credits for Calculus I, Calculus II, PHYS 172, and the FYE Science selective are NOT used towards the 44 credit total. Engineering credits must be at 20000+ level. Some examples of Basic Science include MA, BIOL, CHM, PHYS, EAPS and SLHS.

32 credits at 30000+ level (any courses) must be taken at Purdue West Lafayette.

***Updated 08/14/2023***