PURDUE UNIVERSITY: KRANNERT SCHOOL OF MANAGEMENT BS INTEGRATED BUSINESS & ENGINEERING STEM

FALL 2022- SUMMER 2023

Your advising worksheet may vary. A sample schedule of courses is outlined below. • Denotes critical course. * Denotes Pre-requisites required

YEAR 1				
FALL SEMESTER (15 CR): (4.0) General Chemistry (CHM 11500) 1		_	YEAR	2
 □ (2.0) Transforming Ideas Innovation EPICS (ENGR 13300) □ (4.0) Analytic Geometry & Calculus I (MA 16500) ² * □ (3.0) Intro to Accounting (MGMT 20000) □ (1.0) Epics or VIP (EPCS 11100 or VIPS 17911) □ (1.0) IBE #1 Seminar: TBD (MGMT 29110) ³ □ 10R General Chemistry (CHM 11100) AND General Chemistry (CHM 11200) 2 0R •Plane Analytics Geo & Calc I (MA 16100) 3 0R Introduction to Management and Information Strategies (MGMT 11000) SPRING SEMESTER (15 CR): □ 1.0) Epics or VIP (EPCS 12100 or VIPS 17912) □ (4.0) Analytic Geometry & Calculus II (MA 16600)¹* □ (4.0) Modern Mechanics (PHYS 17200) * □ (3.0) Microeconomics (ECON 25100) □ (3.0) Oral Communication ² □ 10R •Plane Analytics Geo & Calc II (MA 16200) 2 Fundamentals of Speech Communication (COM 11400) or Science Writing & Presentations (COM 21700) or Collaborative Leadership:Interpersonal Skills (EDPS 31500) or Transformative Texts: Critical Thinking & Communication II: Modern World (SCLA 10200) □ Join a Learning Community Learn Requirements to make upper division 	Ga.0) Management Acc Ga.0) Management Acc Ga.0) Multivariate Calcu Ga.0) Marketing Manag Ga.0-4.0) Written Comm Ga.0) Engineering IBE Compart Ga.0) Engineering IBE Compart Ga.0) Engineering IBE Compart Ga.0) IBE #2 Seminar: The spring of the spring o		ER (17-18 CR): counting (MGMT 20100) * lus (MA 26100) * ement (MGMT 32400) councidation 1 core Course BD(MGMT 29120) cop (MGMT 29120) cop (MGMT 29120) cop (MGMT 31000) * cop (MGMT 3100	(ENGL 10800)) OR Interdis- 3800) ¹ 30301)
YEAR 3		- Check on an internsh	ip this year	
FALL SEMESTER (13 CR): (3.0) Business Statistics (MGMT 30500) * (3.0) Business Method Elective (2.0) Intellect Property Mangemt (MGMT 49200) (3.0) Area Specialty Course (2.0) IBE Innovation Lab EPICS or VIP (1.0)		☐ (2.0) Storytellin☐ (3.0) Strategic №☐ (3.0) Intro to Org	YEA IESTER (15 CR) g With Data (MGMT 4930 Management (MGMT 352 g Behavior (0BHR 33000	: 00)* 00)*
SPRING SEMESTER (14 CR): ☐ (3.0) Engineering Elective ☐ (3.0) Engineering Expansion Course ☐ (3.0) Operations Management (MGMT 36100)* ☐ (3.0) Management Info Sys (MGMT 38200)* ☐ (2.0) IBE Innovation Lab: EPICS or VIP		SPRING S (3.0) Business I (3.0) Area Speci	ninar:TBD (MGMT 29140) an Cultures: Humanities GEMESTER (14-2 Depth Course ialty Course	15 CR
- Consider an internship - Consider study abroad		☐ (2.0-3.0) General	al Elective	

COURSES

BUSINESS CORE COURSES (37 CR):

Introduction to Accounting (MGMT 20000) (3 cr) Management Accounting (MGMT 20100)* (3 cr)

Microeconomics (ECON 25100) (3 cr)

Programming for Business Apps (MGMT 28800) (3 cr)

Intellectual Property Management (MGMT 49200) (3 cr)

Business Statistics (MGMT 30500) * (3 cr)

Financial Management (MGMT 31000)* (3 cr)

Marketing Management (MGMT 32400) (3 cr)

Strategic Management(MGMT 35200)* (3 cr)

Operations Management (MGMT 36100)* (3 cr)

Management Information Systems (MGMT 38200)* (3 cr)

Organizational Behavior (OBHR 33000)* (3 cr)

Storytelling With Data (MGMT 49300) (3 cr)

BUSINESS METHOD ELECTIVES (6 CR):

Choose two courses:

Management Science (MGMT 30600)* (3 cr)

Project Management (MGMT 46600) (3 cr)

Spreadsheet Modeling (MGMT 47200)* (3 cr)

Predictive Analytics (MGMT 47400)* (3 cr)

BUSINESS DEPTH COURSES (3 CR):

Managerial Economics (ECON 30100)* (3 cr)

Int Accounting/Non Acct Majors (MGMT 35300)* (3 cr)

Investments (MGMT 41100)* (3 cr)

Digital Marketing Strategy (MGMT 42710)* (3 cr)

Leadership & Org Change (MGMT 44362)* (3 cr)

Technology Strategy (MGMT 44810)* (3 cr)

Supply Chain Analytics (MGMT 46300)* (3 cr)

Data Mining (MGMT 47300)* (3 cr)

Data Driven Decisions in Dig Mrkt (MGMT 48800) (3 cr)

INNOVATION LAB COURSES (13 CR):

(4) IBE Seminar/Special Topics (1 cr)

(MGMT 29110, 29120, 29130, 29140)

(2) Team-based design in EPICS or VIP (2 cr)

(EPCS 20100, 20200, 30100, 30200 or ENGR 27920, 37920) Capstone (MGMT 49400) (3 cr)

OTHER COURSE REQUIREMENTS (16-17 CR):

Written Communication

Oral Communication

UCC: Human Cultures (Humanities) Elective

Multivariate Calculus (MA 26100) *

Probability & Statistics in Business (STAT 30301) *

Capstone (MGMT 49400)

ELECTIVES (2-3 CR):

Courses of your choice

SPECIALTY AREAS (12 CR):

Pick your specialty area

☐ Financial Engineering	☐ Supply Chain Operations Mgmt
□ Data Analytics	☐ Student Designed Area (Adv App)

(UC) University Core Curriculum - For additional information on your University Core Curriculum requirements please visit the Purdue's Office of the Provost Outcomesbased core curriculum website.

ENGINEERING COURSES (6 CR):

General Chemistry (CHM 11500)

Analytical Geometry & Calc (MA 16500)

Analytical Geometry & Calc II (MA 16600)*

Transforming Ideas to Innovation, EPICS (ENGR 13300)

Modern Mechanics (PHYS 17200)

First-Year Participation in EPICS or VIP I (EPCS 11100)1

First-Year Participation in EPICS or VIP I (EPCS 12100)²

Engineering Expansion Course (Any ENGR, ABE or CHE 20000-49900 course available for non-engineering students (except a junior or senior required seminar)

1 or VIPS 17911- if taking IE 343 as IBE Core Course must take EPCS 111 2 or VIPS 17912 - if taking IE 343 as IBE Core Course must take EPCS 121

ENGINEERING IBE CORE COURSES (6 CR):

Computations for Eng Systems (ABE 20500)* (F)

Thermodynamics (ME 20000)* (SP/S)

Basic Mech (CE 29700)*(SP) OR Basic Mech I (ME 27000)* (SP/S-Online)

Life Cycle Eng & Mgmt of Const Facilities (CEM 20100)(SP)

Environmental, Ecological & Eng Systems (EEE 25000) (F)

Electrical Engineering Fundamentals (ECE 20001)* (SP/SOnline)

Environmental & Ecological Systems Modeling (EEE 30000)* (SP)

Probability & Statistics in Engineering (IE 23000)* (F/SP)

Engineering Economics (IE 34300)* 2 (SP)

Structure and Properties of Materials (MSE 23000)* (F/ SP/S-Online)

Intro to Nuclear Engineering (NUCL 20000)*3 (F) AND

Nuclear Structure and Radiation Interactions (NUCL 30000)* (SP)

If you choose this course - your four year plan will need to be altered as the pre-req for this course MA 261 comes after the semester slated for the IBE Engineering Core course 2 If you choose this course you must choose the pre-req courses of EPICS 111 & EPICS 121 3 If you choose NUCL 20500 as one of your two courses you must also choose NUCL 20000 as it is the pre-requisite course for NUCL 2050

ENGINEERING ELECTIVES (3 CR):

Choose one of the below courses

It's a Complex World: Address GC (SYS 30000) (3 cr)

Systems Theories & Approaches (SYS 35000) (3 cr)

Imagine, Model, Make (IE 47200) (3 cr)

MAI courses are designed to prepare you for upper division courses. Before you can enroll in any upper division courses (300 or higher level Krannert courses), you'll need to complete your MAI and meet all the requirements outlined for your major. our advising worksheet may vary. A sample schedule of courses is provided on page two.

Complete all MAI courses with a 3.00 or above MAI GPA and a 2.5 cumulative GPA

Have a C- or higher in all MAI and MGMT, ECON & OBHR Courses

Not be on academic probation

Introductory Accounting (MGMT 20000)
Applied Calculus I (MA 16010)
Microeconomics (ECON 25100)
Written Communication*
Oral Communication*
* Course has several optionssee the four year degree path

Program: IBE-BS

Major Index: 2.0

Credit Hours: 120

Graduation Index: 2.0

CODE: IBE



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IBE SPECIALTY AREA

SPECIALTY AREAS (12 CR): Pick your specialty area

☐ Financial Engineering ☐ Supply Chain Operations Mgmt ☐ Data Analytics ☐ Student Designed Area (Adv App)

Program: IBE-BS
CODE: IBE
Major Index: 2.0
Graduation Index: 2.0
Credit Hours: 120

DATA ANALYTICS (12 CR):

Select & Complete 2 of the below courses:

Econometrics (ECON 36000)*
Adv SpreadSheet Modeling & Sim (MGMT 47200)*
Data Mining (MGMT 47300)*
Predictive Analytics (MGMT 47400)*

Select & Complete 2 of the below courses:

Programming for Business Apps(MGMT 28800)
Six Sigma & Quality Analytics (MGMT 40500)*
Financial Modeling (MGMT 41310)*
Marketing Analytics (MGMT 42110)*
Marketing Research (MGMT 42500)*
Adv Mftg Planning & Control Sys (MGMT 46200)*
Supply Chain Analytics (MGMT 46300) *
Project Management (MGMT 46600)
Data Visualization (MGMT 47900)*
Data-Driven Decisions in Dig. Mkt (MGMT 48800)*
Database Management Systems (MGMT 54400)*

FINANCIAL ENGINEERING (12 CR):

Complete the below course12

Investment Management (MGMT 41100) *
Futures & Options (MGMT 41150) *
Fixed Income Securities (MGMT 41250) *
Financial Data Analysis & Modeling (MGMT 41310) *

SUPPLY CHAIN OPERATIONS MANAGEMENT (12 CR):

Complete the 3 below courses:

Supply Chain Analytics (MGMT 46300)*
Logistics, Concepts & Models (MGMT 46400)*
Strategic Sourcing & Procurement (MGMT 46501)*

Select & Complete 1 of the below courses:

Intro to Supply Chain Management (MGMT 26100) Six Sigma & Quality Analytics (MGMT 40500)* Adv Manufct. Planning Control Syst (MGMT 46200)* Project Management (MGMT 46600)*

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Choose any 20000- 40000 level courses with approval of advisor.



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