

General Engineering

Sample Schedule

Alternative sample schedules are available at nyuad.nyu.edu/grids

Year 1

Fall Semester

Calculus with Applications or Calculus	ECC: Computer Programming for Engineers	General Elective	First-year Writing Seminar
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January Term

ECC: Design & Innovation

Spring Semester

Multivariable Calculus	Foundations of Science 1	Foundations of Science 2	Colloquium
	Ethics		

Year 2

Fall Semester

Linear Algebra	ECC: Statics	ECC: Conservation Laws	Core
	ECC: Digital Logic	ECC: Circuits	

January Term

General Elective

Spring Semester

Differential Equations / Discrete Math	Engineering Elective	EM Physics / QS Biology	General Elective
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Year 3

Fall Semester

Probability & Statistics	Engineering Elective	Engineering Elective	Colloquium
ECC: Numerical Methods			

January Term

General Elective

Spring Semester

Engineering Materials	Engineering Elective	Engineering Elective	Core
Discrete Math / ODE / PDE / Data Analysis			

Year 4

Fall Semester

Engineering Elective	Instrumentation	Engineering Elective	Core
Capstone Design I			

Spring Semester

Capstone Design II	Engineering Elective	General Elective	Core
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General Engineering - for the Chemical and Biological Engineering specialization

Sample Schedule: Engineering electives may vary

You should discuss with your major mentor before proceeding with the following schedule

Year 1

Fall Semester

Calculus with Applications or Calculus	ECC: Computer Programming for Engineers	General Elective	First-year Writing Seminar
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January Term

ECC: Design & Innovation

Spring Semester

Multivariable Calculus	Foundations of Science 1 Ethics	Foundations of Science 2	Colloquium
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Year 2

Fall Semester

Linear Algebra	ECC: Statics ECC: Digital Logic	ECC: Conservation Laws ECC: Circuits	Core
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January Term

Colloquium

Spring Semester

Differential Equations / Discrete Math	Fluid Mechanics BioTransport Phenomena*	EM Physics / QS Biology	Organic Chemistry I & lab (5cr)
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Year 3

Fall Semester

Probability & Statistics ECC: Numerical Methods	Thermodynamics* Engineering Elective	Analysis of Chem and Bio Processes*	Core
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January Term

Core

Spring Semester

Transport II* (3cr)	Kinetics and Reactor Design* (3cr)	Chem and Biomolecular Separations* (3cr) General Elective (3 cr)	Physical Chem
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Year 4

Fall Semester

Heat Transport Capstone Design I	Instrumentation	Engineering Materials Discrete Math / ODE / PDE / Data Analysis	Organic Chemistry II & lab (5cr)
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Spring Semester

Capstone Design II	Thermal Systems	Bio sensors and Bio chips	Core
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General Engineering - for the Computational Engineering specialization

Sample Schedule: Engineering electives may vary

You should discuss with your major mentor before proceeding with the following schedule

Year 1

Fall Semester

Calculus with Applications or Calculus	ECC: Computer Programming for Engineers	Colloquium	First-year Writing Seminar	January Term
				ECC: Design & Innovation

Spring Semester

Multivariable Calculus	Foundations of Science 1	Foundations of Science 2	Colloquium	

Year 2

Fall Semester

Linear Algebra	ECC: Statics	ECC: Conservation Laws	Core	January Term
	ECC: Digital Logic	ECC: Circuits		General Elective

Spring Semester

Differential Equations	Eng Dynamics/Complex Variables	EM Physics / QS Biology	Probability and Statistics (MATH 2011Q)	
Discrete Math / ODE / PDE / Data Analysis	Object Oriented Programming			

Year 3

Fall Semester

Engineering Materials	Computer Vision	Data Structures and Algorithms	Mathematical Modeling (MATH 2410)	January Term
ECC: Numerical Methods				General Elective

Spring Semester

General Elective	Intelligence (3cr)	Systems (4cr)	MA UY 2114 Calc III (4cr)	
CS UY 4563 Intro to Machine Learning (3cr)			General Elective (3 cr)	

Year 4

Fall Semester

Discrete Math / ODE / PDE / Data Analysis	Instrumentation	Applied Machine Learning	Core	
Capstone Design I				

Spring Semester

Capstone Design II	Core	General Elective	Core	

General Engineering - for the Human Computer Interaction specialization

Sample Schedule: Engineering electives may vary

You should discuss with your major mentor before proceeding with the following schedule

Year 1

Fall Semester

Calculus with Applications or Calculus	ECC: Computer Programming for Engineers	General Elective	First-year Writing Seminar
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January Term

ECC: Design & Innovation

Spring Semester

Multivariable Calculus	Foundations of Science 1 Ethics	Foundations of Science 2	Colloquium
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Year 2

Fall Semester

Linear Algebra	ECC: Statics ECC: Digital Logic	ECC: Conservation Laws ECC: Circuits	Core
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January Term

IM UH 1500J Immersive Storytelling and the Art of Making the Virtual a Reality

Spring Semester

Differential Equations / Discrete Math	Discrete Math / ODE / PDE / Data Analysis Object Oriented Programming	EM Physics / QS Biology	Introduction to Interactive Media
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Year 3

Fall Semester

Probability & Statistics ECC: Numerical Methods	Data Structures and Algorithms	Human Computer Interaction**/Robotics**	IM-UH Communication and Technology (Core: CADT)
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January Term

General Elective

Spring Semester

CSCI UA.0004 001 Intro to Web Design and Computer Principles	CS UY 4613 Artificial Intelligence (3cr) CS UY 6543 Human Computer Interaction (3cr)	Core	CS UY 4563 Intro to Machine Learning (3cr) ECE GY 522 Sensor Based Robotics (3cr)
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Year 4

Fall Semester

Engineering Materials Capstone Design I	Instrumentation	Computer Graphics and Vision**	Computer Vision
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Spring Semester

Capstone Design II	Core	General Elective	Colloquium
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General Engineering - for the Regenerative Medicine specialization

Sample Schedule: Engineering electives may vary

You should discuss with your major mentor before proceeding with the following schedule

Year 1

Fall Semester

Calculus with Applications or Calculus	ECC: Computer Programming for Engineers	General Elective	First-year Writing Seminar
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January Term

ECC: Design & Innovation

Spring Semester

Multivariable Calculus	Foundations of Science 1	Foundations of Science 2	Colloquium
	Ethics		

Year 2

Fall Semester

Linear Algebra	ECC: Statics	ECC: Conservation Laws	Probability & Statistics
	ECC: Digital Logic	ECC: Circuits	ECC: Numerical Methods

January Term

General Elective

Spring Semester

Ordinary Differential Equations	Engineering Materials	QS Biology	General Elective
Intro to Data Analysis for Engineers	Tissue Engineering		

Year 3

Fall Semester

BMS UY 1003 or 1004 Introduction to Cell and Molecular Biology	ME UY 4633 Biomaterials	BE GY 9443 Tissue Engineering***	BE GY 6103 Anatomy, Physiology, and Biophysics***
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January Term

General Elective

Spring Semester

Core	Engineering Elective	Colloquium	Core
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Year 4

Fall Semester

Engineering Elective	Instrumentation	Biomechanics	Core
Capstone Design I		Biomaterials	

Spring Semester

Capstone Design II	Engineering Elective	General Elective	Core
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