

Building Engineering September Entry

Year	Term	Course	Title	Credit	Prerequisite	Co-requisite
ear 1	Fall	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	3.00	MATH 204	ENGR 242
		BLDG 212	Building Engineering Drawing and Introduction to Design	3.00		
		ENCS 282	Technical Writing and Communication	3.00	Students must pass the Engineering Writing Test (EWT), or pass ENCS 272 with a grade of C- or higher	
		ENGR 213	Applied Ordinary Differential Equations	3.00	MATH 205	MATH 204
		ENGR 242	Statics	3.00	MATH 204; PHYS 204	ENGR 213
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	Winter	ENGR 201	Professional Practice and Responsibility	1.50		
		ENGR 233	Applied Advanced Calculus	3.00	MATH 204, 205	
		ENGR 243	Dynamics		ENGR 213, 242	
		ENGR 244	Mechanics of Materials			ENGR 233
		ENGR 251	Thermodynamics I		MATH 203	
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	Summer	BCEE 371	Surveying	3.00	BLDG 212 or CIVI 212	
ear 2	Fall	BCEE 342	Structural Analysis I	3.00	ENGR 244	
		BLDG 341	Building Engineering Systems	3.00		BCEE 231
		ELEC 275	Principles of Electrical Engineering			ENGR 213
		ENGR 311	Transform Calculus and Partial Differential Equations	_	ENGR 233	
		ENGR 361	Fluid Mechanics I		ENGR 213, 233, 251	
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	Winter	BCEE 344	Structural Design I	3.00	BCEE 342	
		BLDG 365	Building Science		ENGR 251	
		BLDG 366	Acoustics and Lighting		ENGR 243	
		ENGR 391	Numerical Methods in Engineering	3.00	ENGR 213, 233; COMP 248 or COEN 243 or MECH 215 or BCEE 231	
			General Education Elective	3.00	5011 231	
ear 3	Fall	BCEE 345	Structural Design II		BCEE 342	
		BLDG 390	Building Engineering Design Project		BLDG 341; ENCS 282	BCEE 344
		BLDG 476	Thermal Analysis of Buildings		BLDG 365; ENGR 361	
		CIVI 432	Soil Mechanics	3.50	ENGR 244	
		ENGR 301	Engineering Management Principles and Economics	3.00		
	Winter	BCEE 451	Construction Engineering		BLDG 341 or CIVI 341	
		BLDG 371	Building Service Systems	3.50		BLDG 365
		CIVI 321	Engineering Materials		CHEM 205	
		ENGR 371	Probability and Statistics in Engineering	3.00	ENGR 213, 233	
ear 4	Fall	BLDG 463	Building Envelope Design		BLDG 365; CIVI 321	
		BLDG 471	HVAC System Design	4.00		BLDG 476
		BLDG 490	Capstone Building Engineering Design Project	4.00	Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301	
			Technical elective*	3.00		
			Technical elective*	3.00		
			. 55531 61656176	3.00		
	Winter	BLDG 482	Impact of Technology on Society and Architecture	3.00	20 courses in the BEng program	
	vviiitei	BLDG 490	Capstone Building Engineering Design Project		Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301	
			Technical elective*	3.00	211011301	
			Technical elective* Technical elective*	3.00		

^{*} Students in the Building Engineering program must complete at least 16 elective credits from within one of options A or B. For more information, please consult section 71.50.1 of the 2016-2017 Undergraduate Calendar.



Building Engineering January Entry

Term	Course	Title	Credit	Prerequisite	Co-requisite
Winter	ELEC 275	Principles of Electrical Engineering	3.50	PHYS 205	ENGR 213
	ENGR 213	Applied Ordinary Differential Equations	3.00	MATH 205	MATH 204
	ENGR 233	Applied Advanced Calculus	3.00	MATH 204, 205	
	ENGR 242	Statics	3.00	MATH 204; PHYS 204	ENGR 213
	ENGR 251	Thermodynamics I	3.00	MATH 203	
6	ENICD 242		2.00	ENCD 242, 242	
		•			ENGR 233
					LIVOR 233
Fall	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	3.00	MATH 204	ENGR 242
	BCEE 342	Structural Analysis I	3.00	ENGR 244	
	BLDG 212	Building Engineering Drawing and Introduction to Design	3.00		
	BLDG 341	Building Engineering Systems	3.00		BCEE 231
	ENGR 201	Professional Practice and Responsibility	1.50		
				BCEE 342	
	BLDG 365	Building Science	3.50	ENGR 251	
	ENCS 282	Technical Writing and Communication	3.00	Students must pass the Engineering Writing Test (EWT), or	
	ENGR 311	Transform Calculus and Partial Differential Equations	3.00	ENGR 233	
	ENGR371		3.00	ENGR 213, 233	
Summer	BCEE 371	Surveying	3.00	BLDG 212 or CIVI 212	
Fall		Structural Design II		BCEE 342	
				·	BCEE 344
				ENGR 244	
	ENGR 301	Engineering Management Principles and Economics	3.00		
Winter	BLDG 366	Acoustics and Lighting	3.50	ENGR 243	
			3.50		BLDG 365
				CHEM 205	
		Numerical Methods in Engineering	3.00	ENGR 213, 233; COMP 248 or COEN 243 or MECH 215 or	
		Technical elective*	3.00	BCEE 231	
			3.00		
Fall	BCEE 451	Construction Engineering	3.00	BLDG 341 or CIVI 341	
				BLDG 365; CIVI 321	
	BLDG 463	Building Envelope Design	3.00	DEDG 303, CIVI 321	
	BLDG 463 BLDG 471	Building Envelope Design HVAC System Design		BLDG 371	BLDG 476
				BLDG 371 Minimum of 75 credits in the BEng (Bldg) program including	BLDG 476
	BLDG 471	HVAC System Design Capstone Building Engineering Design Project	4.00	BLDG 371	BLDG 476
	BLDG 471	HVAC System Design	4.00	BLDG 371 Minimum of 75 credits in the BEng (Bldg) program including	BLDG 476
	BLDG 471	HVAC System Design Capstone Building Engineering Design Project	4.00	BLDG 371 Minimum of 75 credits in the BEng (Bldg) program including	BLDG 476
Winter	BLDG 471 BLDG 490	HVAC System Design Capstone Building Engineering Design Project Technical elective*	4.00	BLDG 371 Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301 20 courses in the BEng program Minimum of 75 credits in the BEng (Bldg) program including	BLDG 476
Winter	BLDG 471 BLDG 490 BLDG 482	HVAC System Design Capstone Building Engineering Design Project Technical elective* Impact of Technology on Society and Architecture	4.00 4.00 3.00 4.00	BLDG 371 Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301 20 courses in the BEng program	BLDG 476
Winter	BLDG 471 BLDG 490 BLDG 482	HVAC System Design Capstone Building Engineering Design Project Technical elective* Impact of Technology on Society and Architecture Capstone Building Engineering Design Project	4.00	BLDG 371 Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301 20 courses in the BEng program Minimum of 75 credits in the BEng (Bldg) program including	BLDG 476
	Summer Fall Winter Fall Winter	Winter ELEC 275	Winter ELEC 275 Principles of Electrical Engineering ENGR 213 Applied Ordinary Differential Equations ENGR 233 Applied Advanced Calculus ENGR 234 Statics ENGR 245 Statics ENGR 251 Thermodynamics I Summer ENGR 241 Mechanics of Materials ENGR 341 Pluid Mechanics I Fall BCEE 231 Structured Programming and Applications for Building and Civil Engineers BCEE 342 Structural Analysis I BLDG 212 Building Engineering Drawing and Introduction to Design BLDG 341 Building Engineering Systems ENGR 201 Professional Practice and Responsibility Winter BCEE 344 Structural Design I BLDG 365 Building Science ENCS 282 Technical Writing and Communication ENGR 311 Transform Calculus and Partial Differential Equations ENGR371 Probability and Statistics in Engineering Summer BCEE 371 Surveying Fall BCEE 345 Structural Design II BLDG 390 Building Engineering Design Project BLDG 476 Thermal Analysis of Buildings CIVI 432 Soil Mechanics ENGR 301 Engineering Management Principles and Economics Winter BLDG 371 Building Service Systems CIVI 321 Engineering Materials ENGR 391 Numerical Methods in Engineering Technical elective*	Winter ELEC 275 Principles of Electrical Engineering 3.50 ENGR 213 Applied Ordinary Differential Equations 3.00 ENGR 233 Applied Advanced Calculus 3.00 ENGR 242 Statics 3.00 ENGR 251 Thermodynamics I 3.00 ENGR 245 Thermodynamics I 3.00 ENGR 246 Mechanics of Materials 3.75 ENGR 361 Fluid Mechanics I 3.00 BCEE 341 Structured Programming and Applications for Building and Civil Engineers 3.00 BCEE 342 Structural Analysis I 3.00 BLDG 212 Building Engineering Drawing and Introduction to Design 3.00 ENGR 201 Professional Practice and Responsibility 1.50 Winter BCEE 344 Structural Design I 3.00 BLDG 365 Building Science 3.50 ENCS 282 Technical Writing and Communication 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Transform Calculus and Partial Differential Equations 3.00 ENGR 311 Tr	Winter ELEC 275

^{*} Students in the Building Engineering program must complete at least 16 elective credits from within one of options A or B. For more information, please consult section 71.50.1 of the 2016-2017 Undergraduate Calendar.



Building Engineering Co-op Entry

Year	Term	Course	Title	Credit	Prerequisite	Co-requisite
Year 1	Fall	BCEE 231	Structured Programming and Applications for Building and Civil Engineers	3.00	MATH 204	ENGR 242
		BLDG 212	Building Engineering Drawing and Introduction to Design	3.00		
		BLDG 341	Building Engineering Systems	3.00		BCEE 231
		ENGR 213	Applied Ordinary Differential Equations	3.00	MATH 205	MATH 204
		ENGR 242	Statics	3.00	MATH 204; PHYS 204	ENGR 213
		ENIOD 204		4.50		
	Winter	ENGR 201	Professional Practice and Responsibility	1.50	AAATU 204 205	
		ENGR 233	Applied Advanced Calculus	3.00	MATH 204, 205	
		ENGR 243	Dynamics Machanian of Materials	3.00	ENGR 213, 242	ENCD 222
		ENGR 244	Mechanics of Materials	3.75	ENGR 213 ; ENGR 242 or 245 MATH 203	ENGR 233
		ENGR 251	Thermodynamics I	3.00	IVIATH 203	
	Summer	BCEE 342	Structural Analysis I	3.00	ENGR 244	
	•	BCEE 371	Surveying	3.00	BLDG 212 or CIVI 212	
					Students must pass the Engineering Writing Test	
		ENCS 282	Technical Writing and Communication	3.00	(EWT), or pass ENCS 272 with a grade of C- or higher	
		ENGR 311	Transform Calculus and Partial Differential Equations	3.00	ENGR 233	
		ENGR 361	Fluid Mechanics I	3.00	ENGR 213, 233, 251	
ear 2	Fall	Work Term 1				
	Winter	BCEE 344	Structural Design I	3.00	BCEE 342	
	willer	BLDG 365	Building Science	3.50	ENGR 251	
		BLDG 365	Acoustics and Lighting	3.50	ENGR 243	
		BLDG 300	Building Service Systems	3.50	ENGN 245	BLDG 365
		CIVI 321	Engineering Materials	3.75	CHEM 205	BLDG 303
		CIVI 321	Linguiscering Materials	3.73	CHEWI 203	
	Summer	ELEC 275	Principles of Electrical Engineering	3.50	PHYS 205	ENGR 213
		ENGR 301	Engineering Management Principles and Economics	3.00		
		ENGR 371	Probability and Statistics in Engineering	3.00	ENGR 213, 233	
					ENGR 213, 233; COMP 248 or COEN 243 or MECH 215	
		ENGR 391	Numerical Methods in Engineering	3.00	or BCEE 231	
ear 3	Fall	BCEE 345	Structural Design II	3.00	BCEE 342	
		BLDG 390	Building Engineering Design Project	3.50	BLDG 341; ENCS 282	BCEE 344
		BLDG 476	Thermal Analysis of Buildings	3.00	BLDG 365; ENGR 361	
		CIVI 432	Soil Mechanics	3.50	ENGR 244	
			General education elective	3.00		
	Winter	Work Term 2				
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	Summer	Work Term 3				
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ear 4	Fall	BCEE 451	Construction Engineering	3.00	BLDG 341 or CIVI 341	
		BLDG 463	Building Envelope Design	3.00	BLDG 365; CIVI 321	2125 := 5
		BLDG 471	HVAC System Design	4.00	BLDG 371	BLDG 476
		BLDG 490	Capstone Building Engineering Design Project	4.00	Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301	
			Technical elective*	3.00		
	Winter	BLDG 482	Impact of Technology on Society and Architecture	3.00	20 courses in the BEng program	
		BLDG 490	Capstone Building Engineering Design Project	4.00	Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301	
			Technical elective*	3.00		
			Technical elective*	3.00		

^{*} Students in the Building Engineering program must complete at least 16 elective credits from within one of options A or B. For more information, please consult section 71.50.1 of the 2016-2017 Undergraduate Calendar.