

**North Carolina State University**  
**CONSTRUCTION ENGINEERING**

**Degree: B.S. in Construction Engineering; Dept. of Civil, Construction, and Environmental Engineering**

**GENERAL CONSTRUCTION CONCENTRATION**

For Students entering after January 2015 (Spring '15)

**FRESHMAN YEAR**

<u>Fall Semester</u>		<u>Credits</u>	<u>Spring Semester</u>		<u>Credits</u>
CH 101	Chemistry – A Molecular Science	3	CSC 111	Intro. to Computing - Python	3
CH 102	General Chemistry Laboratory	1	EC 205	Economics (GEP Requirement) <sup>1</sup>	3
E 101	Intro. to Engineering & Prob. Solving	1	MA 241	Calculus II	4
E 115	Intro. to Computing Environments	1	PY 205	Physics for Engrs. & Sci. I	3
ENG 101	Academic Writing and Research	4	PY 206	Physics for Engrs. & Sci. I Lab	1
MA 141	Calculus I	4	HES__ XXX	Phys. Ed/Healthy Living Elective	<u>1</u>
HESF 1XX	Fitness & Wellness Course	<u>1</u>			15
		15			

**SOPHOMORE YEAR**

<u>Fall Semester</u>		<u>Credits</u>	<u>Spring Semester</u>		<u>Credits</u>
CE 214	Engineering Mechanics - Statics	3	CE 313	Mechanics of Solids	3
TDE 220	Civil Engineering Graphics	3	MA 302	Num. Analysis to Diff Eqns	1
MA 242	Calculus III	4	MSE 200	Mech. Prop. of Structural Materials	3
PY 208	Physics for Engrs. & Sci. II	3	ST 370	Probability and Statistics for Engrs.	3
PY 209	Physics for Engrs. & Sci. II Lab	1	CE 365	Construction Equip't & Methods (S)	3
CE 263	Introduction to Construction Engr	<u>3</u>		Management Science Elective (GEP) <sup>1,2</sup>	<u>3</u>
		17			<u>16</u>

**JUNIOR YEAR**

<u>Fall Semester</u>		<u>Credits</u>	<u>Spring Semester</u>		<u>Credits</u>
CE 301	Civil Engr Surveying & Geomatics	3	CE 327	Reinforced Concrete Design	3
CE 332	Materials of Construction	3	CE 342	Engineering Behavior of Soils & Fdns	4
CE 382	Hydraulics	3	CE 464	Legal Aspects of Contracting (S)	3
CE 390	Engineering Economics	1		Math/Science Elective <sup>3</sup>	4
CE 463	Const. Est., Planning & Control (F)	3		CE Elective <sup>4</sup>	<u>3</u>
COM 110	<b>or</b>				17
ENG 331	Communication for Engr & Tech	<u>3</u>			
		16			

**SENIOR YEAR**

<u>Fall Semester</u>		<u>Credits</u>	<u>Spring Semester</u>		<u>Credits</u>
CE 426	Structural Steel Design	3	ACC 200	Intro. to Managerial Acc. <b>or</b>	
CE 466	Building Construction Engr. (F)	3	MIE 330	Human Resource Management	3
ECE 331	Princ. of Electrical Engr. I <b>or</b>		CE 469	Construction Engr. Project (S)	3
MAE 301	Engineering Thermodynamics I	3		CE Lab Elective <sup>5</sup>	1
GEP Requirement <sup>1</sup>		3		GEP Requirement <sup>1</sup>	3
GEP Requirement <sup>1</sup>		<u>3</u>		GEP Requirement <sup>1</sup>	3
		15		GEP Requirement <sup>1</sup>	<u>2</u>
					15

**Minimum Credit Hours Required for Graduation = 126**

<sup>1</sup>GEP Requirements to be selected from the appropriate lists in consultation with the advisor.

<sup>2</sup> Management Science Elective (2nd Soc Sci GEP) Select one: SOC 205, SOC 301, SOC 305/AFS 305 (USD), SOC 310, PS 202, PS 310, PS 312, PS 314, PS 315, or PS 320.

<sup>3</sup> Math/Science Elective Select one: MEA 101 & MEA 110 (recommended); BIO 183; CH 201 & CH 202; or 1 hour MA or SCI + MA 305 or MA 341

<sup>4</sup> CE 305 (Traffic Engr), CE 325 (Structural Analysis I), CE 367 (Mech'l & Elect'l Systems in Buildings)(S), or CE 383 (Hydrology & Urban Water Sys)

<sup>5</sup> CE 324, or CE 381

\*Foreign Language Proficiency at the FL\_102 level is required for graduation.

**CONSTRUCTION ENGINEERING**  
**GENERAL CONSTRUCTION CONCENTRATION**  
 COURSE LISTING WITH PRE- AND COREQUISITES IN PARENTHESES  
 For students entering after January 2015 (Sum2'15)

Fall Semester

Spring Semester

**FRESHMAN YEAR**

CH 101 (CoReq CH 102)  
 CH 102 (CoReq CH 101)  
 E 101  
 E 115  
 ENG 101  
 MA 141  
 HESF 1XX Fitness & Wellness

CSC 111 (CoReq E 115 and MA 141)  
 EC 205 (GEP Soc. Sci. Requirement)<sup>1</sup>  
 MA 241 (C or better in MA 141)  
 PY 205 (C or better in MA 141)  
 PY 206 (C or better in MA 141; CoReq: PY 205)  
 HES\_\_ XXX Phys. Ed/Healthy Living Elective

**Matriculation Requirements (CODA):** 1. C or better in CH 101, CH 102, ENG 101, MA 141, MA 241, PY 205, & PY 206  
 2. Completion of E 115

**SOPHOMORE YEAR**

CE 214 (C or better PY205 & MA241; Co: MA 242)	CE 313 (MA 242, C- or better in CE 214)
TDE 220 (Graphics Elective)	MA 302 (MA 241)
MA 242 (C or better in MA 241)	MSE 200 (CH 101)
PY 208 (C- or better in PY 205 & MA 241)	ST 370 (MA 241)
PY 209 (C- or better in PY 205, MA241, PY 206, CoReq: PY208)	CE 365 (CE 263, CoReq: ST 370)(S)
CE 263 (CoReq CE 214) (F)	Management Science Elective <sup>2</sup>
	Math/Science Elective <sup>3</sup>

**JUNIOR YEAR**

CE 301 (matriculation into CE, CNE, or ENE)	CE 327 (CE 332, C- or better in CE 313)
CE 332 (MSE 200)	CE 342 (C- or better in CE 313, CoReq. CE 382)
CE 382 (CE 214, CoReq ST 370)	CE 464 (CE 463, CoReq. CE 365) (S)
CE 390 (CSC 111, CoReq ST 370)	Math/Science Elective <sup>3</sup>
CE 463 (CE 263) (F), CE 365 (S)	CE Elective <sup>4</sup>
COM 110 <b>or</b>	
ENG 331 (Junior Standing)	

**SENIOR YEAR**

CE 426 (C- or better in CE 313)	ACC 200 <b>or</b>
CE 466 (CoReq CE 327) (F)	MIE 330 (MIE 201)
ECE 331 (MA 241, PY 208) <b>or</b>	CE 469 (CE 463, CoReq CE 464) (S)
MAE 301 (MA 242, PY 208)	CE Lab Elective <sup>5</sup>
GEP Requirement <sup>1</sup>	GEP Requirement <sup>1</sup>
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	GEP Requirement <sup>1</sup>

<sup>1</sup>GEP Requirements to be selected from the appropriate lists in consultation with the advisor.

<sup>2</sup> Management Science Elective (second Social Science) Select one: SOC 205, SOC 301, SOC 305/AFS 305 (USD), SOC 310, PS 202, PS 310, PS 312, PS 314, PS 315, PS 320

<sup>3</sup> Math/Science Elective, Select one: MEA 101 & MEA 110 (recommended), BIO 183; CH 201 & CH 202; or 1 hour MA or SCI + MA 305 or MA 341.

<sup>4</sup> CE 305 (CoReq ST 370), CE 325 (CSC 111, C- or better in CE 313), CE 367 (CE 382)(S), or CE 383 (C- or better in CE 382)

<sup>5</sup> CE 324, or CE 381