

Civil Engineering (B.S.)

The Department of Civil Engineering at Howard University offers a Bachelor of Science degree in Civil Engineering. The study of civil engineering addresses the grand challenges of restoring, protecting, and improving our Nation's infrastructure with a keen eye on sustainable, green design. At Howard University, faculty and students are involved in interdisciplinary research involving collaborations with departments both within Howard and external to Howard and have made distinct inroads in research and education within our field.

Freshman Year First Semester

Item #	Title	Credits
EGPP 101	Introduction to Engineering	2
MATH 156	Calculus I	4
	ENGW 101/102/104	3
CHEM 003	Gen Chemistry I	4
CHEM 005	Gen Chem Lab I	1
Sub-Total Credits		14

Freshman Year Second Semester

Item #	Title	Credits
CIEG 104	Civil Eng Software & Design	3
MATH 157	Calculus II	4
	ENGW 103/105	3
PHYS 013	Phys for Sci & Engr Lec I	3
PHYS 023	Phys for Sci & Engr Lab I	1
	Health Education Requirement (Options: Courses under subject code HHPL)	1
Sub-Total Credits		15

Sophomore Year First Semester

Item #	Title	Credits
	Basic Science Elective	3
CIEG 202	Statics	3
MATH 158	Calculus III	4
PHYS 014	Phys for Sci & Engr Lec II	3
PHYS 024	Phys for Sci & Engr Lab II	1
Sub-Total Credits		14

Sophomore Year Second Semester

Item #	Title	Credits
	Humanities Elective	3
CIEG 302	Dynamics	3
CIEG 351	Probability & Stats	3
MATH 159	Differential Equations	4
MEEG 209	Material Science	3
	Sub-Total Credits	16

Junior Year First Semester

Item #	Title	Credits
CIEG 207	Environmental Engineering	3
CIEG 301	Mechanics of Materials Lecture	3
CIEG 303	Mechanics of Material Lab	1
CIEG 311	Fluid Mechanics Lecture	3
CIEG 313	Fluid Mechanics Lab	1
	Social Science Elective	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	Sub-Total Credits	17

Junior Year Second Semester

Item #	Title	Credits
CIEG 314	Structures I	3
CIEG 350	Engineering Economics	3
CIEG 352	Water Resources Engineering I	3
CIEG 416	Transportation Engineering	3
CIEG 434	Soil Mechanics Lecture	3
CIEG 438	Soil Mechanics Lab	1
	Sub-Total Credits	16

Senior Year First Semester

Item #	Title	Credits
CIEG 439	Senior Design I	2
CIEG 464	Engineering Project Mgmt	3
	CIEG Elective	3
	CIEG Elective	3
	CIEG Elective	3
	CIEG Elective	3
	Sub-Total Credits	17

Senior Year Second Semester

Item #	Title	Credits
CIEG 441	Senior Design II	2
	Technical Elective	3
	Technical Elective	3
	African-American Elective (Options: see Elective Group Descriptions)	3
	Sub-Total Credits	11
	Total credits:	120

Category Descriptions

ENGW 101/102/104

Choose between ENGW 101, ENGW 102, OR ENGW 104

ENGW 103/105

Health Education Requirement (Options: Courses under subject code HHPL)

Basic Science Elective

Course Options:

BIOL 101, Comp 001, 002,

Humanities Elective

Social Science Elective

General Elective (Options: To be determined in consultation with advisor) (3)

CIEG Elective

Technical Elective

Please consult with your academic advisor.

Physics Majors :(PHYS, CHEM, BIOL, CSCI, MATH, Engineering)

African-American Elective (Options: see Elective Group Descriptions)

Afro-American Studies Elective * (Options: see Elective Group Descriptions) 3
