

IIE Bachelor of Engineering in Civil Engineering

School of Engineering, Science and Health

The IIE Bachelor of Engineering in Civil Engineering is an integrated curriculum designed by top engineers. It equips you with a solid scientific foundation in modern civil engineering design and the skills to create physical and social environments for the 21st Century.

Based on contemporary sustainability theory, the degree will introduce you to issues like the fundamental mathematical and physical sciences in theory and practice, the application of engineering sciences to civil engineering projects and key expertise in geotechnical, hydraulic, structural and

transportation engineering. This is a degree for people who want to build a better world.

This professional degree is endorsed by the Engineering Council of South Africa (ECSA).

DEGREE

CONTACT

FULL-TIME

IIE Bachelor of Engineering in Civil Engineering

4 OR 5 YEARS FULL-TIME | NQF LEVEL 8 | MINIMUM 480 Credits | SAQA ID: 118321

Curriculum

MODULES					
YEAR 1					
Code	Module Name	Credits	Code	Module Name	Credits
CIED5111	Civil Engineering Design 1A	12	CIED5112	Civil Engineering Design 1B	12
ECHE5111	Engineering Chemistry 1A	12	EMEC5112	Engineering Mechanics 1B	14
EMTH5111	Engineering Mathematics 1A	18	EMTH5112	Engineering Mathematics 1B	18
EPHY5111	Engineering Physics 1A	14	ESCI5112	Earth Sciences 1B	14
SAPR5111	Society and Practice 1A	12	SAPR5112	Society and Practice 1B	12
			XBCV5112	Work Integrated Learning	12

YEAR 2					
Code	Module Name	Credits	Code	Module Name	Credits
CIED6211	Civil Engineering Design 2A	12	RUIN6212	Rural and Urban Infrastructure 2B	12
EMAT6211	Engineering Materials 2A	14	SAPR6212	Society and Practice 2B	12
EMEC6211	Engineering Mechanics 2A	14	STRU6212	Structural Engineering 2B	12
EMTH6211	Engineering Mathematics 2A	14	WAEN6212	Water Engineering 2B	12
SAPR6211	Society and Practice 2A	12	XBCV6212	Work Integrated Learning 2	12
			CIED6212	Civil Engineering Design 2B	12
			GEOT6212	Geotechnical Engineering	12

YEAR 3					
Code	Module Name	Credits	Code	Module Name	Credits
CIED7311	Civil Engineering Design 3A	12	CIED7312	Civil Engineering Design 3B	12
GEOT7311	Geotechnical Engineering 3A	12	GEOT7312	Geotechnical Engineering 3B	12
RUIN7311	Rural and Urban Infrastructure 3A	12	RUIN7312	Rural and Urban Infrastructure 3B	12
SAPR7311	Society and Practice 3A	12	SAPR7312	Society and Practice 3B	12
STRU7311	Structural Engineering 3A	12	WAEN7312	Water Engineering 3B	12
WAEN7311	Water Engineering 3A	12	XBCV7312	Work Integrated Learning 3	12
			STRU7312	Structural Engineering 3B	12

YEAR 4					
Code	Module Name	Credits	Code	Module Name	Credits
INFD8411	Infrastructure Design 4A	18	DPRO8412	Design Project 4B	36
SAPR8411	Society and Practice 4A	18	RPRO8412	Research Project 4B	36
STRU8411	Structural Engineering Design 4A	18			
WAED8411	Water Engineering Design 4A	18			

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Curriculum (Extended Programme)

MODULES					
YEAR 1					
Code	Module Name	Credits	Code	Module Name	Credits
EMTH5111	Engineering Mathematics 1A	18	EMTH5112	Engineering Mathematics 1B	18
EPHY5111	Engineering Physics 1A	14	EMEC5112	Engineering Mechanics 1B	14
ECHE5111	Engineering Chemistry 1A	14	ESCI5112	Earth Sciences 1B	14

YEAR 2					
Code	Module Name	Credits	Code	Module Name	Credits
EMTH6211	Engineering Mathematics 2A	18	WAEN6212	Water Engineering 2B	12
SAPR5111	Society and Practice 1A	14	RUIN6212	Rural and Urban Infrastructure 2B	12
CIED5111	Civil Engineering Design 1A	12	SAPR5112	Society and Practice 1B	12
			CIED5112	Civil Engineering Design 1B	12
			XBCV5112	Work Integrated Learning	12

YEAR 3					
Code	Module Name	Credits	Code	Module Name	Credits
EMEC6211	Engineering Mechanics 2A	14	STRU6212	Structural Engineering 2B	12
EMAT6211	Engineering Materials 2A	14	GEOT6212	Geotechnical Engineering 2B	12
SAPR6211	Society and Practice 2A	12	SAPR6212	Society and Practice 2B	12
CIED6211	Civil Engineering Design 2A	12	CIED6212	Civil Engineering Design 2B	12
			XBCV6212	Work Integrated Learning 2	2

YEAR 4					
Code	Module Name	Credits	Code	Module Name	Credits
STRU7311	Structural Engineering 3A	12	STRU7312	Structural Engineering 3B	12
GEOT7311	Geotechnical Engineering 3A	12	GEOT7312	Geotechnical Engineering 3B	12
WAEN7311	Water Engineering 3A	12	WAEN7312	Water Engineering 3B	12
RUIN7311	Rural and Urban Infrastructure 3A	12	RUIN7312	Rural and Urban Infrastructure 3B	12
SAPR7311	Society and Practice 3A	10	PSYC7324	Society and Practice 3B	12
CIED7311	Civil Engineering Design 3A	12	CIED7312	Civil Engineering Design 3B	12
			XBCV7312	Work Integrated Learning 3	2

YEAR 5					
Code	Module Name	Credits	Code	Module Name	Credits
STRU8411	Structural Engineering Design 4A	18	DPRO8412	Design Project 4B	36
WAED8411	Water Engineering Design 4A	18	RPRO8412	Research Project 4B	36
INFD8411	Infrastructure Design 4A	18			
SAPR8411	Society and Practice 4A	18			

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Career Opportunities

The programme prepares graduates to assume engineering positions within the construction sector, structural design, environmental, hydraulic engineering, transportation and geotechnical engineering fields.

NQF 5 Higher Certificate

NQF 7 Bachelor's Degree (360 credits)

NQF 8 Bachelor's Degree (480 credits)

NQF 9 Master's Degree



Admission Requirements

There are prerequisites for this programme that must be met in order to progress through the qualification.

Minimum Admission Requirements: 4-year programme

National Senior Certificate (NSC)

Bachelor pass with English 50%, Mathematics 70% and Physical Science 60%

National Certificate (Vocational) (NC(V))

Bachelor pass with English 50% (3), Mathematics 70% and Physical Science 60%

SC: Endorsement with

Bachelor pass with English 50%, Mathematics 70% and Physical Science 60%

Senior Certificate (Amended) (SC(a))

Bachelor pass with English 50%, Mathematics 70% and Physical Science 60%

International

An USAf Exemption Certificate with 70% or equivalent for Maths AND 50% or equivalent for English AND 60% or equivalent is also required for either Physical Science or both Physics and Chemistry.

A cognate Higher Certificate OR any cognate 240 credit Diploma OR an Advanced Certificate OR 360 credit Diploma OR an appropriate IIE MSA Foundation Programme may satisfy the minimum admission requirements to degree studies.

NOTE: A student may not proceed to the next year if all the stipulated pre- and co-requisites have not been satisfied because he/she will require these requisites to be able to undertake the level of study required in the next year.

Minimum Admission Requirements: 5-year programme

National Senior Certificate (NSC)

Bachelor pass with English 50%, Mathematics 60% and Physical Science 50%

National Certificate (Vocational) (NC(V))

Bachelor pass with English 50%, Mathematics 60% and Physical Science 50%

SC: Endorsement with

Endorsement with English 50%, Mathematics 60% and Physical Science 50%

Senior Certificate (Amended) (SC(a))

Bachelor pass with English 50%, Mathematics 60% and Physical Science 50%

International Requirements for 5-year programme

USAf Exemption Certificate with 60% or equivalent for Maths AND 50% or equivalent for English AND 50% or equivalent is also required for either Physical Science or both Physics and Chemistry.

SHAPE YOUR DEGREE. YOUR FUTURE. YOUR CAREER.