



College : **ENGINEERING**
 Department : **CIVIL AND ARCHITECTURAL ENGINEERING**
 Cohorts : **2024**
 Degree : **B. ENG.**
 Major Specialization : **CIVIL ENGINEERING**



Summary of Credits:		
University Requirements (UR)		6
General Foundation Program	NC*	
Arabic	2	
Contemporary Omani State and People	2	
Oman & Islamic Civilization or Islamic Culture	2	
University Electives (UE)		6
See list A		
College Requirements (CR)		32
See list B		
College Electives (CE)		3
See list C		
Departmental Requirements (DR)		41
See list D		
Departmental Electives (DE)		0
See list E		
Major Requirements (AR)		33
See list F		
Major Electives (AE)		15
See list G		
Minor Requirements (IR)		0
See list H		
Minor Electives (IE)		0
See list I		
Specialization Requirements (SR)		0
See list J		
Specialization Electives (SE)		0
See list K		
TOTAL		136

* Not Credited

For reference contact: HoD

Ext. 1332

HoD

Dean's Office

Admission and Registration

Date: 22/04/2024

Date: 02/06/2024

Date:

Last update on: 22/04/2024

Department of Civil and Architectural Engineering
Civil Engineering Degree Plan: 2024 Cohort (Scheme I)

Scheme I FP1 (Fall 2024)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		General Foundation Program	0		UR
	Total		0		

Scheme I Semester 1 (Spring 2025)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	HIST1010 ISLM1010	Oman & Islamic Civilization or Islamic Culture	2		UR
	LANC2160	English for Engineering I	3		CR
	CHEM1071	General Chemistry for Engineers	3		CR
	ENGR1501	Introduction to Engineering	1		CR
	ENGR1600	Workshop I	1		CR
	MATH2107	Calculus I	4		CR
	Total		14		

Scheme I Semester 2 (Fall 2025)	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
	ARAB1060 ⁺	Arabic	2		UR
		University Elective I	2		UE
	SOCY1005 ⁺	Contemporary Omani State and People	2		UR
	LANC2161	English for Engineering II	3	LANC2160	CR
	MATH2109	Calculus II for Science and Engineering	3	MATH 2107	CR
	PHYS2107	Physics for Engineering I	4	MATH2107* (Co-req.)	CR
	Total		16		

Scheme I Semester 3 (Spring 2026)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		College Elective	3		CE
	PHYS2108	Physics for Engineering II	4	PHYS 2107	CR
	ERSC2020	Geology for Engineers	3		DR
		University Elective II	2		UE
	CIVL3011	Statics	3	PHYS2107	DR
	Total		15		

⁺For non-Omani and non-Arabic speaking students, refer to Appendix A.

Scheme I Semester 4 (Fall 2026)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	MATH3171	Linear Algebra & Multivariate Calculus	3	MATH2109	CR
	CIVL3020	Engineering Drawing	3		AR
	CIVL3056	Surveying	3	MATH2107	DR
	CIVL3086	Mechanics of Materials	3	CIVL3011	DR
	CIVL3096	Construction Materials	3	CIVL3011, CHEM1071	DR
	Total		15		

Scheme I Jan. 2027	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL3007	Practical Skills Development	0	CIVL3056	AR
	Total		0		

Scheme I Semester 5 (Spring 2027)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	MATH4174	Differential Equations for Engineers	3	MATH2109, LANC2161	CR
	CIVL3036	Structures I	3	CIVL3086	DR
	CIVL3076	Transportation Engineering	3		AR
	CIVL3106	Geotechnical Engineering I	3	PETM3006 or ERSC2020	AR
	CIVL4046	Fluid Mechanics	3	CIVL3011	DR
	Total		15		

Scheme I Semester 6 (Fall 2027)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL4036	Highway Engineering	3	CIVL3106, CIVL3076	AR
	CIVL4136	Environmental Engineering I	3	CIVL4046, CHEM1071	AR
	CIVL4146	Hydraulics	3	CIVL4046	AR
	CIVL4206	Concrete Design	3	CIVL3036, CIVL3096, (CIVL3020 or AREN3312)	DR
	CIVL5146	Numerical Methods	3	ENGR2217/COMP2002), MATH3171	DR
	Total		15		

Scheme I Semester 7 (Spring 2028)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL4006	Prob. & Statistics for Engineers	3	MATH2107	DR
	CIVL4400	Professional Practice & Ethics	2		DR
		Department Elective I ^b	3		AE
	CIVL3066	Engineering Hydrology	3	CIVL4046	AR
	CIVL4016	Structures II	3	CIVL3036, MATH 4174	AR
	CIVL5204	Engineering Economics	3	MATH2107	DR
	Total		17		

Scheme I Summer 2028	Course Code	Course Title	Cr.	Pre-req.	Cat.
	ENGR4007	Industrial Training	0		CR
	Total		0		

Scheme I Semester 8 (Fall 2028)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		Department Elective II ^b or	3		AE
	CIVL5993	Research Project I		Department Approval	
	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL3020 or AREN3312), PHYS2108	DR
	CIVL4226	Foundation Engineering	3	CIVL3106, CIVL4206	AR
	CIVL5010	Modern Technologies in Civil Engineering	1	CIVL4206	AR
	CIVL5336	Construction Management	3	CIVL5204	DR
	CIVL5991	Design Project I	2	CIVL4206 and (CIVL4036, CIVL4136 or CIVL4146)	AR
	Total		15		

Scheme I Semester 9 (Spring 2029)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		University Elective III	2		UE
		Department Elective III ^b	3		AE
		Department Elective IV ^b	3		AE
		Department Elective V ^b or	3		AE
	CIVL5994	Research Project II		CIVL5993	
	CIVL5992	Design Project II	3	CIVL5991	AR
	Total		14		
Total (All Program)			136		

^b Departmental Electives: A student must choose five department elective courses.
The student who completes **CIVL5993** must also take **CIVL5994**.

Department of Civil and Architectural Engineering
Civil Engineering Degree Plan: 2024 Cohort (Scheme II)

Scheme II FP1 (Fall 2024)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		General Foundation Program	0		UR
	Total		0		

Scheme II FP2 (Spring 2025)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		General Foundation Program	0		UR
	Total		0		

Scheme II Semester 1 (Fall 2025)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	HIST1010 or ISLM1010	Oman & Islamic Civilization Islamic Culture	2		UR
	LANC2160	English for Engineering I	3		CR
	CHEM1071	General Chemistry for Engineers	3		CR
	ENGR1501	Introduction to Engineering	1		CR
	ENGR1600	Workshop I	1		CR
	MATH2107	Calculus I	4		CR
	Total		14		

Scheme II Semester 2 (Spring 2026)	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
	ARAB1060 ⁺	Arabic	2		UR
		University Elective I	2		UE
	LANC2161	English for Engineering II	3	LANC 2160	CR
	SOCY1005 ⁺	Contemporary Omani State and People	2		UR
	MATH2109	Calculus II for Science and Engineering	3	MATH2107	CR
	PHYS2107	Physics for Engineering I	4	MATH2107* (Co-req.)	CR
	Total		16		

⁺For non-Omani and non-Arabic speaking students, refer to Appendix A.

Scheme II Summer 2026	Course Code	Course Title	Cr.	Pre-req.	Cat.
		College Elective	3		CE
	CIVL3011	Statics	3	PHYS2107	DR
	Total		6		

Scheme II Semester 3 (Fall 2026)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	ERSC2020	Geology for Engineers	3		DR
	PHYS2108	Physics for Engineering II	4	PHYS2107	CR
	CIVL3020	Engineering Drawing	3		AR
	CIVL3056	Surveying	3	MATH2107	DR
	CIVL3086	Mechanics of Materials	3	CIVL3011	DR
	Total		16		

Scheme II January 2027	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL3007	Practical Skills Development	0	CIVL3056	AR
	Total		0		

Scheme II Semester 4 (Spring 2027)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL3076	Transportation Engineering	3		AR
	CIVL3096	Construction Materials	3	CIVL3011, CHEM1071	DR
	CIVL3106	Geotechnical Engineering I	3	PETM3006 or ERSC2020	AR
	CIVL4046	Fluid Mechanics	3	CIVL3011	DR
	MATH3171	Linear Algebra & Multivariate Calculus	3	MATH2109	CR
	Total		15		

Scheme II Summer 2027	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL4006	Prob. & Statistics for Engineers	3	MATH2107	DR
	CIVL5204	Engineering Economics	3	MATH2107	DR
	Total		6		

Scheme II Semester 5 (Fall 2027)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		University Elective II	2		UE
	MATH4174	Differential Equations for Engineers	3	MATH2109, LANC2161	CR
	CIVL3036	Structures I	3	CIVL3086	DR
	CIVL4036	Highway Engineering	3	CIVL3106, CIVL3076	AR
	CIVL4136	Environmental Engineering I	3	CIVL4046, CHEM1071	AR
	CIVL4146	Hydraulics	3	CIVL4046	AR
	Total		17		

Scheme II Semester 6 (Spring 2028)	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL4400	Professional Practice & Ethics	2		DR
		Department Elective I ^b	3		AE
	CIVL3066	Engineering Hydrology	3	CIVL4046	AR
	CIVL4016	Structures II	3	CIVL3036, MATH 4174	AR
	CIVL4206	Concrete Design	3	CIVL3036, CIVL3096, (CIVL3020 or AREN3312)	DR
	CIVL5146	Numerical Methods	3	ENGR2217/COMP2002), MATH 3171	DR
	Total		17		

Scheme II Summer 2028	Course Code	Course Title	Cr.	Pre-req.	Cat.
	ENGR4007	Industrial Training	0		
	Total		0		

Scheme II Semester 7 (Fall 2028)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		Department Elective II ^b or Research Project I	3	Department Approval	AE
	CIVL5993				
	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL3020 or AREN3312), PHYS 2108	DR
	CIVL4226	Foundation Engineering	3	CIVL3106, CIVL4206	AR
	CIVL5010	Modern Technologies in Civil Engineering	1	CIVL4206	AR
	CIVL5336	Construction Management	3	CIVL5204	DR
	CIVL5991	Design Project I	2	CIVL4206 and (CIVL4036, CIVL4136 or CIVL4146)	AR
	Total		15		

Scheme II Semester 8 (Spring 2029)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		University Elective III	2		UE
		Department Elective III ^b	3		AE
		Department Elective IV ^b	3		AE
		Department Elective V ^b or Research Project II	3		AE
	CIVL5994	Research Project II		CIVL5993	
	CIVL5992	Design Project II	3	CIVL5991	AR
	Total		14		
Total (All Program)			136		

^b Departmental Electives: A student must choose five department elective courses.
The student who completed CIVL5993 must also take CIVL5994.

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: **2024 Cohort** (COOP Scheme)

- The cooperative Training (COOP) Scheme is **optional**.
- **Scheme I** Students can enroll in this scheme starting from Semester **8** after the foundation program.
- **Scheme II** students can enroll in this scheme starting from Semester **7** after the foundation program.
- For enrollment terms, conditions, and registration procedure, please consult the Head of Department and the Assistant Dean for Training and Community Services Offices.

COOP Scheme COOP Semester	Course Code	Course Title	Cr.	Pre-req.	Cat.
	ENGR4007	Industrial Training	0		CR
	CIVL5001	Civil Program Cooperative Training I	0	ENGR4007* (Co-req.)	AE
	Total		0		

COOP Scheme COOP Semester	Course Code	Course Title	Cr.	Pre-req.	Cat.
	CIVL5002	Civil Program Cooperative Training II	6	CIVL5001	AE
	Total		6		

COOP Scheme COOP Semester (Fall)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		Department Elective II ^b or Research Project I	3		AE
	CIVL5993			Department Approval	
	CIVL4226	Foundation Engineering	3	CIVL3106, CIVL4206	AR
	CIVL5010	Modern Technologies in Civil Engineering	1	CIVL4206	AR
	CIVL5336	Construction Management	3	CIVL5204	DR
	CIVL5991	Design Project I	2	CIVL4206 and (CIVL4036, CIVL4136 or CIVL4146)	AR
	Total		12		

COOP Scheme COOP Semester (Spring)	Course Code	Course Title	Cr.	Pre-req.	Cat.
		University Elective III	2		UE
	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL3020 or AREN3312), PHYS2108	DR
		Department Elective III ^b or Research Project II	3		AE
	CIVL5994			CIVL5993	
	CIVL5992	Design Project II	3	CIVL5991	AR
	Total		11		
	Total (All Program)		136		

^b Departmental Electives: A student must choose three department elective courses.
The student who completed CIVL5993 must also take CIVL5994.

Appendix A

No.	Cohorts 2018 and before	Credits	Cohorts 2018 and after	Cr.	Notes
1	ARAB1001	3	ARAB1060	2	
2	SOCY1001	1	SOCY1005	2	For Omanis Only
3	--	--	SOCY1007	2	For Non-Omanis
4	ARAB1019			3	For Non-Arabic Speaking Students. Offered only in Fall semesters

Notes:

- For the courses (SOCY1005, SOCY1007, HIST1010), the course materials and exams are in English for non-Arabic speaking students.
- Currently, there is no Arabic course with 2 credits for the non-Arabic speaking students of cohorts 2018 and after. Those students have to register the ARAB1019 as shown in the table above.

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: **2024 Cohort**

LIST A* – University Electives

***List of University Elective Courses Allowed for ENG students (Check the QR code)**



LIST B: College Requirements (CR)

Code	Title	Credits	Pre-Requisite
ENGR1501	Introduction to Engineering	1	
ENGR1600	Workshop I	1	
LANC2160	English for Engineering I	3	
LANC2161	English for Engineering I	3	LANC2160
MATH2107	Calculus I	4	
MATH2109	Calculus II for Science and Engineering	3	MATH 2107
MATH3171	Linear Algebra & Multivariate Calculus	3	MATH2109
MATH4174	Differential Equations for Engineers	3	MATH2109, LANC2161
PHYS2107	Physics for Engineering I	4	MATH2107* (Co-req.)
PHYS2108	Physics for Engineering II	4	PHYS 2107
CHEM1071	General Chemistry for Engineers	3	
ENGR4007	Industrial Training	0	
Total		32	

LIST C: College Electives (CE)

One Course- 3 credit hours: The elective course will be offered from the following courses subject to availability.

Code	Title	Credits	Pre-Requisite
COMP 2002	Introduction to Comp. Programming for Engineers	3	
ENGR2217	Computer Programming	3	

LIST D: Department Requirements (DR)

Code	Title	Credits	Pre-Requisite
CIVL3011	Statics	3	PHYS2107
CIVL3056	Surveying	3	MATH2107
CIVL3086	Mechanics of Materials	3	CIVL3011
CIVL3096	Construction Materials	3	CIVL3011, CHEM1071
ERSC2020	Geology for Engineers	3	
CIVL3036	Structures I	3	CIVL3086
CIVL4006	Prob. & Statistics for Engineers	3	MATH2107
CIVL4046	Fluid Mechanics	3	CIVL3011
CIVL4206	Concrete Design	3	CIVL3036, CIVL3096, (CIVL3020 or AREN3312)
CIVL4400	Professional Practice & Ethics	2	
CIVL5146	Numerical Methods	3	(ENGR2217/COMP2002), MATH 3171
CIVL5204	Engineering Economics	3	MATH2107
CIVL4216	Steelwork Design	3	CIVL3036, (CIVL3020 or AREN3312), PHYS2108
CIVL5336	Construction Management	3	CIVL5204
Total		41	

LIST F: Major Requirements (AR)

Code	Title	Credits	Pre-Requisite
CIVL3007	Practical Skills Development	0	CIVL3056
CIVL3020	Engineering Drawing	3	
CIVL3106	Geotechnical Engineering I	3	PETM3006 or ERSC2020
CIVL4036	Highway Engineering	3	CIVL3106, CIVL3076
CIVL3076	Transportation Engineering	3	
CIVL4136	Environmental Engineering I	3	CIVL4046, CHEM1071
CIVL4146	Hydraulics	3	CIVL4046
CIVL3066	Engineering Hydrology	3	CIVL4046
CIVL4016	Structures II	3	CIVL3036, MATH4174
CIVL4226	Foundation Engineering	3	CIVL3106, CIVL4206
CIVL5010	Modern Technologies in Civil Engineering	1	CIVL4206
CIVL5991	Design Project I	2	CIVL4206 and (CIVL4036, CIVL4136 or CIVL4146)
CIVL5992	Design Project II	3	CIVL5991
Total		33	

LIST G: Major Electives (AE)

Technical Elective Courses – 15 credit hours

The student should select 5 courses (15 credit hours) or 3 courses (9 credit hours) and Research Project I and Research Project II. The electives can be taken from: (1) Civil Engineering optional technical electives; or (2) one course (max. 3 credits) offered in the M.Sc. Program in Civil Engineering after approval of advisor.

Civil Engineering: General

Code	Title	Credits	Pre-Requisite
CIVL5104	Special Topics in Civil Engineering	3	Department Approval
CIVL5150	Remote Sensing	3	
CIVL5376	Conservation of Structures	3	
CIVL5993	Research Project I	3	Department Approval
CIVL5994	Research Project II	3	CIVL5993

Civil Engineering: Water Resources

Code	Title	Credits	Pre-Requisite
CIVL5076	Coastal Engineering	3	CIVL4046
CIVL5142	Groundwater	3	CIVL3066
CIVL5246	Hydraulic Structures	3	CIVL4046
CIVL5346	Water Resources Engineering	3	CIVL3066
CIVL5160	GIS in Water Resources Engineering	3	CIVL3066

Civil Engineering: Geotechnical

Code	Title	Credits	Pre-Requisite
CIVL4106	Geotechnical Engineering II	3	CIVL3106
CIVL5106	Slope Stability	3	CIVL3106
CIVL5132	Environmental Geotechnics	3	CIVL3106
CIVL5133	Soil Improvement	3	CIVL3106

Civil Engineering: Transportation

Code	Title	Credits	Pre-Requisite
CIVL5122	Highway Materials	3	CIVL4036
CIVL5206	Traffic Engineering	3	CIVL3076
CIVL5216	Pavement Design and Maintenance	3	CIVL4036
CIVL5226	Airport Design	3	CIVL4036

Civil Engineering: Structures

Code	Title	Credits	Pre-Requisite
CIVL5096	Concrete Structures	3	CIVL4016, CIVL4206
CIVL5126	Concrete Materials and Technology	3	CIVL3036, CIVL3086, CIVL3096
CIVL5214	Computer Applications in Structural Engineering	3	CIVL4016, CIVL4206
CIVL5236	Prestressed Concrete	3	CIVL4206
CIVL5296	Design of Masonry Structures	3	CIVL3086
CIVL5270	Fire Safety in Buildings	3	CIVL4216
CIVL5462	Concrete Technology	3	CIVL3096
CIVL5662	Building Materials	3	CIVL3086, CIVL3096
CIVL5664	Contemporary Materials in Civil Engineering	3	CIVL3096

Civil Engineering: Construction

Code	Title	Credits	Pre-Requisite
CIVL5102	Construction Engineering	3	
CIVL5156	Estimating Construction Cost	3	CIVL3020, CIVL4206
CIVL5306	Specifications and Contracts	3	CIVL4206
CIVL5678	Administration of Contracts	3	CIVL4206
CIVL5680	Construction Planning & Scheduling (Computer application)	3	CIVL4206, CIVL5336

Civil Engineering: Environmental

Code	Title	Credits	Pre-Requisite
CIVL5151	Solid Waste Management	3	CIVL4136
CIVL5152	Microbiology for Engineers	3	CIVL4136
CIVL5153	Chemistry for Environmental Engineering	3	CIVL4136
CIVL5186	Water and Wastewater Management	3	CIVL4136
CIVL5254	Environmental Pollution	3	CIVL4136
CIVL5255	Environmental Management Systems	3	CIVL4136
CIVL5326	Environmental Engineering II	3	CIVL4136
CIVL5154	Membrane Technology for water and wastewater	3	CIVL4136

Civil Engineering: Geomatics

Code	Title	Credits	Pre-Requisite
CIVL5111	Global Positioning Systems and Its Applications in Civil Engineering	3	CIVL3056
CIVL5311	Adjustment Computations	3	CIVL3056
CIVL5600	Introduction to Photogrammetry	3	CIVL3056