

Study Plan

1	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	EPT111	Computer Aided Engineering Drawing	4	3	120	
	CET111	Introduction to Computer and Programming	6	4	180	
	GEN111	Applied Mathematics I	5	4	150	GEN011
	HUM111	English Language I	2	2	60	HUM011
	HUM121	Principles of Law, Human Rights & Ethics	2	2	60	
			19	15	570	

2	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT102	Introduction to Water Resources Management	4	3	90	
	GEN122	Principles of Physics	4	3	120	
	GEN211	Probability & Statistics	5	3	150	GEN111
	GEN131	Principle of Chemistry & Material Science	5	4	150	
	HUMUE1	University Elective I	2	2	60	
	IRT103	IRT Internship I	4	4	90	
			24	19	660	

3	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC201	Introduction to Soil	4	3	90	
	IRT203	Fundamental Surveying Techniques	4	3	90	
	IRT204	Wells and Pumps	4	3	90	IRT102
	IRT205	IRT Project I - Seminar I	1	3	90	
	EPT202	Foundation of Electrical Engineering	6	4	90	GEN111 AND GEN122
	HUM231	Presentation Skills and Technical Writing	2	2	60	HUM111
			21	18	510	

4	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT206	Groundwater and Surface Water Hydrology	4	3	90	IRT102
	IRT207	Irrigation Instrumentation	6	4	120	EPT202
	IRT208	Principles of Irrigation Systems	6	4	90	
	IRT209	IRT Project II	1	3	90	IRT205
	CET123	Foundation of Information Technology	6	4	180	CET122 OR CET111
			23	18	570	

			Total	Credit Hours: 70		
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- HUMUE1: University Elective I
 - HUM113: German Language
 - HUM114: Italian Language
 - HUM131: Innovation & Entrepreneurship
 - HUM132: Management and Leadership Skills
 - HUM133: Communication and Negotiation Skills
 - HUM141: Principles of Economics
 - HUM151: History of Engineering & Technology
 - HUM152: History of Art & Architecture
 - HUM153: The Character of Egypt
 - HUM154: Arabic Language
 - HUM161: Sustainability for Entrepreneurship
 - HUM162: Sustainability for Employment
 - HUM163: Health and Safety
 - HUM164: Social Responsibility

- HUM171: Preparing Technical Reports
- HUM172: Scientific Research & Critical Thinking
- HUM251: Safety and risk

Study Plan

5	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT301	Soil and Water Conservation Engineering	4	3	90	IRTC201
	IRTC301IFC	Drainage Engineering	4	3	90	IRTC201
	IRT302	Water Treatment Reuse	4	3	90	GEN131
	GEN113	Applied Mathematics II	5	4	150	GEN111
	HUMUE2	University Elective II	2	2	60	
			19	15	480	

6	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC302IFC	Field Crop Irrigation System Design Fundamentals	4	3	90	IRTC301IFC
	IRT303	Agricultural Water Management	6	4	120	
	IRT304	Modeling Soil and Water Processes	4	3	120	IRT301
	IRT305	IRT Internship II	4	4	90	IRT103
	HUM311	English Language II	4	3	120	HUM111
			22	17	540	

7	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT401	Design of On-Farm Irrigation Systems	6	4	120	IRT206
	IRTC401IFC	Advanced Field Crop Irrigation Design	4	3	90	IRTC302IFC
	IRT402	Irrigation Water Quality and Salinity Management	4	3	90	IRT401
	IRT403	IRT Project III + Seminar	1	3	90	IRT209
	HUM431	Project Management	4	3	120	
	HUMUE3	University Elective III	2	2		
			21	18	510	

8	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC402IFC	Cropping Systems	4	3	90	IRTC401IFC
	IRT404	Water Delivery System	6	4	90	IRT401
	IRT405	Remote Sensing for Water Management	6	4	90	
	IRT406	IRT Project IV	1	3	90	IRT403
	IRT407	Smart Irrigation Technologies	4	3		
			21	17	360	

			Total	Credit Hours: 137		
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 - HUM113: German Language
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 - HUM132: Management and Leadership Skills
 - HUM133: Communication and Negotiation Skills
 - HUM141: Principles of Economics
 - HUM151: History of Engineering & Technology
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 - HUM163: Health and Safety
 - HUM164: Social Responsibility
 - HUM171: Preparing Technical Reports
 - HUM172: Scientific Research & Critical Thinking
 - HUM251: Safety and risk

- HUMUE3: University Elective III
 - HUM113: German Language
 - HUM114: Italian Language
 - HUM131: Innovation & Entrepreneurship
 - HUM132: Management and Leadership Skills
 - HUM133: Communication and Negotiation Skills
 - HUM141: Principles of Economics
 - HUM151: History of Engineering & Technology
 - HUM152: History of Art & Architecture
 - HUM153: The Character of Egypt
 - HUM154: Arabic Language
 - HUM161: Sustainability for Entrepreneurship
 - HUM162: Sustainability for Employment
 - HUM163: Health and Safety
 - HUM164: Social Responsibility
 - HUM171: Preparing Technical Reports
 - HUM172: Scientific Research & Critical Thinking
 - HUM251: Safety and risk

Study Plan

5	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT301	Soil and Water Conservation Engineering	4	3	90	IRTC201
	IRTC301PIT	Advanced Irrigation System Design	4	3	90	IRTC201
	IRT302	Water Treatment Reuse	4	3	90	GEN131
	GEN113	Applied Mathematics II	5	4	150	GEN111
	HUMUE2	University Elective II	2	2	60	
			19	15	480	

6	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC302PIT	Center Pivot Irrigation System Design	4	3	90	IRTC301PIT
	IRT303	Agricultural Water Management	6	4	120	
	IRT304	Modeling Soil and Water Processes	4	3	120	IRT301
	IRT305	IRT Internship II	4	4	90	IRT103
	HUM311	English Language II	4	3	120	HUM111
			22	17	540	

7	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT401	Design of On-Farm Irrigation Systems	6	4	120	IRT206
	IRTC401PIT	Advanced Pivot Irrigation System Design	4	3	90	IRTC302PIT
	IRT402	Irrigation Water Quality and Salinity Management	4	3	90	IRT401
	IRT403	IRT Project III + Seminar	1	3	90	IRT209
	HUM431	Project Management	4	3	120	
	HUMUE3	University Elective III	2	2		
			21	18	510	

8	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC402PIT	Environmental Impact of Irrigation	4	3	90	IRTC401PIT
	IRT404	Water Delivery System	6	4	90	IRT401
	IRT405	Remote Sensing for Water Management	6	4	90	
	IRT406	IRT Project IV	1	3	90	IRT403
	IRT407	Smart Irrigation Technologies	4	3		
			21	17	360	

			Total	Credit Hours: 137		
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 - HUM113: German Language
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- HUMUE3: University Elective III
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 - HUM131: Innovation & Entrepreneurship
 - HUM132: Management and Leadership Skills
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Water Management Technology

Study Plan

5	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT301	Soil and Water Conservation Engineering	4	3	90	IRT201
	IRTC301WMT	Irrigation Hydraulics and Conveyance Systems	4	3	90	IRT201
	IRT302	Water Treatment Reuse	4	3	90	GEN131
	GEN113	Applied Mathematics II	5	4	150	GEN111
	HUMUE2	University Elective II	2	2	60	
			19	15	480	

6	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC302WMT	Water Resource Management System Design	4	3	90	IRTC301WMT
	IRT303	Agricultural Water Management	6	4	120	
	IRT304	Modeling Soil and Water Processes	4	3	120	IRT301
	IRT305	IRT Internship II	4	4	90	IRT103
	HUM311	English Language II	4	3	120	HUM111
			22	17	540	

7	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRT401	Design of On-Farm Irrigation Systems	6	4	120	IRT206
	IRTC401WMT	Integrated Water Management System Design	4	3	90	IRTC302WMT
	IRT402	Irrigation Water Quality and Salinity Management	4	3	90	IRT401
	IRT403	IRT Project III + Seminar	1	3	90	IRT209
	HUM431	Project Management	4	3	120	
	HUMUE3	University Elective III	2	2		
			21	18	510	

8	Code	Course Name	Contact Hours	Credit Hours	SWL	Prerequisites
	IRTC402WMT	Water Policy	4	3	90	IRTC401WMT
	IRT404	Water Delivery System	6	4	90	IRT401
	IRT405	Remote Sensing for Water Management	6	4	90	
	IRT406	IRT Project IV	1	3	90	IRT403
	IRT407	Smart Irrigation Technologies	4	3		
			21	17	360	

			Total	Credit Hours: 137		
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