



MAJOR-SPECIFIC STUDY & INTERN ABROAD PROGRAMS

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Course Offerings

FACULTY OF ENGINEERING

University of Dar es Salaam

This file has been adapted from the University of Dar es Salaam (UDES) prospectus. Contact KEI for course descriptions and syllabi. Please be patient as it may take 2 to 6 weeks to obtain course descriptions (and syllabi when available). UDES does not have a digitized system for course information; so much of the work must be done manually and through direct contact with each professor.

Course Selection & Approval

UDES uses a very different system for course scheduling and registration. It is important to keep the following in mind when selecting your courses:

1. Not all courses listed in this file are offered each academic term.
2. Course availability and schedule for each academic term is made available by UDES only a couple of days before the semester starts.
3. Some courses may be cancelled after the first week of classes.

In general, the course selection process includes the following steps:

1. Select at least 10 (preferably more) courses for each semester of study. The more courses you select the better (and the quicker the process). Make sure to select courses that are offered during your semester of study; Semester 1 (Fall) and Semester 2 (Spring). Refer to other course files for more course options (<http://www.KEIabroad.org/programs/darsalaam/academics.php>).
2. Consult with your academic and/or study abroad advisor regarding your course selections. Obtain credit transfer approval from your university.
3. Inform your KEI Program Manager about your course selections.
4. KEI will check with UDES which courses will be offered during your semester of study. This process may take several weeks - sometimes longer.
5. KEI will inform you about which courses will be offered. It may be necessary to select additional courses.

Please speak with a KEI Program Manager before starting the course selection process. We will be glad to explain the education system at the University of Dar es Salaam and help you through the entire process.

COMMON COURSES TO ALL PROGRAMMES

First Year

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2

FACULTY OF CIVIL ENGINEERING AND THE BUILT ENVIRONMENT

B. SC. (CIVIL AND STRUCTURAL ENGINEERING)

First Year

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
EG 100:	Workshop Training	3.0	1
TR 110:	Surveying	4.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
SD 101:	Civil Engineering Drawing	2.5E	2
SD 106:	Dynamics of Solids	1.0E	2
TM 101:	Introduction to Civil Eng. & the Built Environment	1.0E	2
SD 230:	Introduction to Building Design	2.0E	2
SD 211:	Civil Engineering Materials	3.0E	2

Second Year

MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
SD 206:	Mechanics of Materials	2.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
SD 221:	Theory of Statically Determinate Structures	3.0E	1
SD 212:	Civil Engineering Materials II	3.0E	1
WR 211:	Fluid Mechanics for Civil Engineers	3.5E	1
TM 201:	Computer Applications in Civil Engineering	1.0E	1
TR211:	Soil Mechanics	4.0E	1
MT 271:	Statistics for Non Majors	3.0E	2
TM 210:	Quantitative Methods in Civil Engineering	1.0E	2
TR 212:	Foundation Engineering	3.0E	2
TR 220:	Route Location	2.5E	2
WR 212:	Open Channel Hydraulics	2.5E	2
WR 230:	Water Supply Engineering	4.0E	2
TR 210:	Introduction to Transportation	3.0E	2
Third Year			
SD 321:	Theory of Statically Indeterminate Structures	2.0E	1
SD 441:	Design of Masonry Structures	1.0E	1
SD 341:	Basic Design of Reinforced Concrete Structures	3.0E	1
TM 321:	Project Appraisal and Planning Techniques	3.0E	1
TR 320:	Highway Geometric Design	2.0E	1
TR 331:	Highway Materials	3.0E	1
WR 321:	Fundamentals of Engineering Hydrology	2.0E	1
	Electives (minimum)	3.0	1
SD 442:	Inter. Design of Reinforced Concrete & Related Aspects	2.0E	2
SD 322:	Matrix and Plastic Theory in Analysis of Structures	2.0E	2
SD 350:	Design of Timber Structures	2.0E	2
SD 360:	Design of Steel Structures	2.0E	2
TM 322:	Civil Engineering Procedures	3.0E	2
	Electives (minimum)	5.0E	2
<i>Electives (Minimum 8.0 Units)</i>			
TR 310:	Traffic Engineering and Management	3.0E	
TR 332:	Pavement analysis and Design	3.0E	
TR 333:	Airport, Harbour and Railway Engineering	3.0E	
WR 322:	Rivers and Reservoirs	2.0E	
WR 323:	Applied Hydrology	2.0E	
WR 325:	Irrigation Engineering	2.0E	
WR 341 :	Epidemiology	1.0E	
WR 342:	Wastewater Engineering	3.0E	

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
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TM 301:	Construction Technology	2.0E	
	<i>Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)</i>		

Fourth Year

SD 421:	Dynamics of Structures	2.0E	1
SD 422:	Numerical Methods in Structural Engineering	2.0E	1
SD 443:	Fundamentals of Prestressed Concrete	2.0E	1
SD 470:	Design of Bridges	2.0E	1
	Electives (minimum)	7.0 E	1
SD 498:	Final Project I	2.0	1
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
SD 499:	Final Project II	4.0	2
	Electives (minimum)	5.0	2

Electives (Minimum 12.0 Units)

TM 401:	Maintenance and Rehabilitation of Constructed Facilities	3.0E	
TM 420:	Management of Construction Projects	3.0E	
WR 410:	Hydraulic Structures and Machinery	3.0E	
TR 430:	Pavement maintenance	3.0E	
TR 441:	Labour Based Road Engineering	3.0E	
TR 410	Special Foundations Pavement	3.0E	
WR 410:	Hydraulic Structures and Machinery	2.0E	
WR 423:	Applied Hydrogeology	2.0E	
WR 442:	Introduction to Water Chemistry and Microbiology	3.0E	
WR 450:	Water Resources Management	1.0E	
WR 460:	Management of Solid and Hazardous Wastes	3.0E	
WR 470:	Environmental Impact Assessment	2.0E	
	<i>Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)</i>		

B. SC. (CIVIL AND TRANSPORTATION ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
EG 100:	Workshop Training	3.0	1
TR 110:	Surveying	4.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
SD 101:	Civil Engineering Drawing	2.5E	2
SD 106:	Dynamics of Solids	1.0E	2
TM 101:	Introduction to Civil Eng. and the Built Environment	1.0E	2
SD 230:	Introduction to Building Design	2.0E	2
SD 211:	Civil Engineering Materials	3.0E	2
Second Year			
SD 212:	Civil Engineering Materials II	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
SD 206:	Mechanics of Materials	2.0E	1
SD 221:	Theory of Statically Determinate Structures	3.0E	1
WR 211:	Fluid Mechanics for Civil Engineers	3.5E	1
TM 201:	Computer Applications in Civil Engineering	1.0E	1
TR211:	Soil Mechanics	4.0E	1
MT 271:	Statistics for Non Majors	3.0E	2
TM 210:	Quantitative Methods in Civil Engineering	1.0E	2
TR 212:	Foundation Engineering	3.0E	2
TR 220:	Route Location	2.5E	2
WR 212:	Open Channel Hydraulics	2.5E	2
WR 230:	Water Supply Engineering	4.0E	2
TR 210:	Introduction to Transportation	3.0E	2
Third Year			
SD 321:	Theory of Statically Indeterminate Structures	2.0E	1
TM 321:	Project Appraisal and Planning Techniques	3.0E	1
TR 320:	Highway Geometric Design	2.0E	1
TR 331:	Highway Materials	3.0E	1
SD 341:	Basic Design of Reinforced Concrete Structures	3.0E	1
WR 321:	Fundamentals of Engineering Hydrology	2.0E	1
	Electives (minimum)	3.0	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
TM 322:	Civil Engineering Procedures	3.0E	2
TR 310:	Traffic Engineering and Management	3.0E	2
TR 332:	Pavement Analysis and Design	3.0E	2
	Electives (minimum)	8.0	2
	<i>Electives (Minimum 11.0 Units)</i>		
TM 301:	Construction Technology	2.0E	
TR 333:	Airport, Harbour and Railway Engineering	3.0E	
WR 341:	Epidemiology	1.0E	
WR 342:	Wastewater Engineering	3.0E	
SD 322:	Matrix and Plastic Theory in Analysis of Structures	2.0E	
SD 350:	Design of Timber Structures	2.0E	
SD 360:	Design of Steel Structures	2.0E	
SD 441:	Design of Masonry Structures	1.0E	
WR 322:	Rivers and Reservoirs	2.0E	
WR 323:	Applied Hydrology	2.0E	
WR 325:	Irrigation Engineering	2.0E	
	<i>Any approved course modules at UDSM (6.0 Units maximum from outside CoET per programme)</i>		
Fourth Year			
TR 441:	Labour Based Road Engineering	3.0E	1
TR 430:	Pavement Maintenance	3.0E	1
TR 442:	Transportation Economics	3.0E	1
	Electives (minimum)	6.0E	1
TR 498:	Final Project I	2.0	1
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
TR 499:	Final Project II	4.0	2
	Electives (minimum)	5.0	2
	<i>Electives (Minimum 11 Units)</i>		
SD 421:	Dynamics of Structures	2.0E	
SD 422:	Numerical Methods in Structural Engineering	2.0E	
SD 442:	Special Aspects of Reinforced Concrete Design	2.0E	
SD 443:	Fundamentals of Prestressed Concrete	2.0E	
SD 470:	Design of Bridges	2.0E	
TM 420:	Management of .Construction Projects	3.0E	

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
TM 401:	Maintenance and Rehabilitation of Constructed Facilities	3.0E	
TR 410:	Special Foundations	3.0E	
WR 410:	Hydraulic Structures and Machinery	2.0E	
WR 423:	Applied Hydrogeology	2.0E	
WR 442:	Introduction to Water Chemistry & Microbiology	3.0E	
WR 450:	Water Resources Management	1.0E	
WR 460:	Management of Solid and Hazardous Wastes	3.0E	
WR 470:	Environmental Impact Assessment	2.0E	
<i>Any approved course modules at UDSM (6.0 units maximum from outside CoET per programme)</i>			

B. Sc. in CIVIL AND WATER RESOURCES ENGINEERING

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
EG 100:	Workshop Training	3.0	1
TR 110:	Surveying	4.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
SD 101:	Civil Engineering Drawing	2.5E	2
SD 106:	Dynamics of Solids	1.0E	2
TM 101:	Introduction to Civil Eng. and the Built Environment	1.0E	2
SD 230:	Introduction to Building Design	2.0E	2
SD 211:	Civil Engineering Materials	3.0E	2

Second Year

SD 212:	Civil Engineering Materials II	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
SD 206:	Mechanics of Materials	2.0E	1
SD 221:	Theory of Statically Determinate Structures	3.0E	1
WR 211:	Fluid Mechanics for Civil Engineers	3.5E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
TR 211:	Soil Mechanics	4.0E	1
TM 201:	Computer Applications in Civil Engineering	1.0E	1
MT 271:	Statistics for Non Majors	3.0E	2
TM 210:	Quantitative Methods in Civil Engineering	1.0E	2
TR 212:	Foundation Engineering	3.0E	2
TR 220:	Route Location	2.5E	2
WR 212:	Open Channel Hydraulics	2.5E	2
WR 230:	Water Supply Engineering	4.0E	2
TR 210:	Introduction to Transportation	3.0E	2
Third Year			
TM 321:	Project Appraisal and Planning Techniques	3.0E	1
TR 320:	Highway Geometric Design	2.0E	1
TR 331:	Highway Materials	3.0E	1
WR 321:	Fundamentals of Engineering Hydrology	2.0E	1
WR 341:	Epidemiology	1.0E	1
WR 342:	Wastewater Engineering	3.0E	1
SD 341:	Design of Reinforced Concrete Structures	3.0E	1
	Electives (minimum)	2.0	1
TM 322:	Civil Engineering Procedures	3.0E	2
WR 322:	Rivers and Reservoirs	2.0E	2
WR 323:	Applied Hydrology	2.0E	2
WR 325:	Irrigation Engineering	2.0E	2
SD 321:	Theory of Statically Indeterminate Structures	2.0E	2
	Electives (minimum)	5.0	2
<i>Electives (Minimum 7.0 Units)</i>			
TM 301:	Construction Technology	2.0E	
TR 310:	Traffic Engineering and Management	3.0E	
TR 332:	Pavement analysis and Design	3.0E	
SD 441:	Design of Masonry Structures	1.0E	
TR 333:	Airport, Harbour and Railway Engineering	3.0E	
SD 322:	Matrix and Plastic Theory in Analysis of Structures	2.0E	
SD 350:	Design of Timber Structures	2.0E	
SD 360:	Design of Steel Structures	2.0E	
Any approved course modules at UDSM (6.0 units maximum from outside CoET per programme)			

Fourth Year

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
WR 410:	Hydraulic Structures and Machinery	2.0E	1
WR 423:	Applied Hydrogeology	2.0E	1
WR 442:	Introduction to Water Chemistry & Microbiology	3.0E	1
WR 450:	Water Resources Management	1.0E	1
WR 460:	Management of Solid and Hazardous Waste	3.0E	1
WR 470:	Environmental Impact Assessment	2.0E	1
	Electives (minimum)	2E	1
WR 498:	Final Project I	2.0	1
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
WR 499:	Final Project II	4.0	2
	Electives (minimum)	5.0	2
	<i>Electives (Minimum 7 Units)</i>		
TM 420:	Management of .Construction Projects	3.0E	
TR 410:	Special Foundations	3.0E	
TR 430:	Pavement Maintenance	3.0E	
TR 441 :	Labour Based Road Engineering	3.0E	
TR 442:	Transportation Economics	3.0E	
SD 421:	Dynamics of Structures	2.0E	
SD 422:	Numerical Methods in Structural Engineering	2.0E	
SD 442:	Special Aspects of Reinforced Concrete Design	2.0E	
SD 443:	Fundamentals of Prestressed Concrete	2.0E	
SD 470:	Design of Bridges	2.0E	
TM 401:	Maintenance & Rehabilitation of Constructed Facilities	3.0E	
	<i>Any approved course modules at UDSM (6.0 units maximum from outside CoET per programme)</i>		

FACULTY OF ELECTRICAL AND COMPUTER SYSTEMS ENGINEERING

B.Sc. (COMPUTER ENG. & INFORMATION TECHNOLOGY)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 110:	Workshop Training I	3.0	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
CS 172:	Computer Programming in Pascal	2.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 111:	Workshop Training II	3.0	2
ME 106:	Strength of Materials I	2.0E	2
TE 171:	Introduction to Electronics Engineering	3.0E	2
Second Year			
CS 211:	Measurements & Instrumentation Engineering I	3.0E	1
CS 231:	Computer Programming in C	2.0E	1
DP 271:	Electrical Network Analysis I	3.0E	1
DP 273:	Engineering Electromagnetics I	2.0E	1
ME 215:	Structure and Application of Electrical Materials	1.0E	1
MT 261:	Several Variable Calculus for Non Majors	3.0E	1
TE 241:	Analogue Electronic for Engineers I	3.0E	1
CS 241:	Computer Networking I	2.0E	1
CS 212:	Measurements and Instrumentation Engineering II	3.0E	2
CS 251:	Introduction to Computer Engineering	3.0E	2
CS 232:	Introduction to Object-oriented Programming	2.0E	2
DP 272:	Electrical Network Analysis II	3.0E	2
DP 274:	Engineering Electromagnetics II	2.0E	2
MT 271:	Statistics for Non Majors	3.0E	2
TE 242:	Digital Electronics for Engineers I	2.0E	2
CS 242:	Computer Networking	2.0E	2
Third Year			
CS 321:	Introduction to Control Systems Engineering	3.0E	1
CS 331:	Introduction to Software Engineering	2.0E	1
CS 333:	Computer Operating Systems	2.0E	1
CS 341 :	Network Routers and Routing	2.0E	1
CS 351:	Computer Engineering I	3.0E	1
CS 353:	Micro Computer Systems I	2.5E	1
CS 355:	Computer Hardware	3.0E	1
	Electives (minimum)	3.0	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
CS 322:	Classical Control Systems Engineering	3.0E	2
CS 332:	Object-Oriented Program Design and Analysis	2.0E	2
CS 342:	LAN Switching,	2.0E	2
CS 352:	Computer Engineering II	3.0E	2
CS 354:	Microcomputer Systems II	2.5E	2
TE 342	Digital Electronics for Engineers II	4.0E	2
	Electives (minimum)	3.0E	2
	<i>Electives (Minimum 6.0 Units)</i>		
DP 313:	Power Electronics I	3.0E	
DP 314:	Power Electronics II	2.0E	
DP 331:	Electrical Power Plants	2.0E	
DP 333:	Introduction to Power Engineering II	2.0E	
TE 311:	Introduction to Analogue Telecommunications	3.0E	
TE 312:	Introduction to Digital Telecommunications	3.0E	
	<i>Any approved course modules at UDSM (6.0 units maximum from outside CoET per programme)</i>		
Fourth Year			
CS 421:	Modern Control Systems Engineering	2.0E	1
CS 431:	Data Base Systems	1.0E	1
CS 451:	Computer Engineering III	3.0E	1
CS 452:	Microcomputer Systems III	2.0E	1
CS 498:	Final Project I	2.0	1
DP 471:	Electrical Safety & Maintenance	2.0E	1
TM 330:	General Engineering Procedures	2.0E	1
TM 400:	Engineering Ethics and Professional Conduct	1.0E	1
	Electives (minimum)	2.0E	1
CS 432:	Software Testing and Software Management	1.0E	2
CS 453:	Computer Security	3.0E	2
CS 499:	Final Project II	4.0	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
TE 442:	Digital Electronics for Engineers	3.0E	2
	Electives (minimum)	4.0	2
	<i>Electives (Minimum 6.0 Units)</i>		
CS 433:	Introduction to Artificial Intelligence	2.0E	2
CS 480:	Selected Topics in Computer Engineering & IT	2.0E	1
DP 421:	Electrical Insulating Materials	1.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
MG 440:	Engineering Economics	2.0E	1
MG 441:	Human Resources Management	2.0E	1
TE 471:	Introduction to VLSI	4.0E	2
CS 434:	Computer Graphics	1.5E	1
CS 441:	Wide Area Networking	2.0E	1
<i>Any Approved Course Modules at UDASM (6.0 Units maximum from outside CoET per programme)</i>			

B. SC. (ELECTRICAL ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 106:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 110:	Workshop Training I	3.0	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
CS 172:	Computer Programming in Pascal	2.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 111:	Workshop Training II	3.0	2
ME 106:	Strength of Materials I	2.0E	2
TE 171:	Introduction to Electronics Engineering	3.0E	2

Second Year

CS 231:	Measurements & Instrumentation Engineering I	3.0E	1
CS 231:	Computer Programming in C	2.0E	1
DP 271:	Electrical Network Analysis I	3.0E	1
DP 273:	Engineering Electromagnetics I	2.0E	1
ME 206:	Strength of Materials II	3.0E	1
ME 215:	Structure and Application of Electrical Materials	1.0E	1
MT 261:	Several Variable Calculus for Non Majors	3.0E	1
TE 241:	Analogue Electronic for Engineers I	2.0E	1
CS 212:	Measurements and Instrumentation Engineering II	3.0E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
CS 251:	Introduction to Computer Engineering	3.0E	2
CS 232:	Introduction to Object-oriented Programming	2.0E	2
DP 272:	Electrical Network Analysis II	3.0E	2
DP 274:	Engineering Electromagnetics II	2.0E	2
ME 207:	Mechanics of Machines	2.0E	2
ME 216:	Classification and testing of Materials	2.5E	2
MT 271:	Statistics for Non Majors	3.0E	2
TE 242:	Digital Electronics for Engineers I	2.0E	2
Third Year			
CS 321:	Introduction to Control Systems Engineering	3.0E	1
CS 353:	Micro Computer Systems I	2.5E	1
DP 311:	Electrical Machines I	3.0E	1
DP 313:	Power Electronics I	3.0E	1
DP 321:	High Voltage Engineering I	3.0E	1
DP 332:	Electrical Power Plants	2.0E	1
DP341:	Electrical Power System Analysis I	2.0E	1
TE 341:	Analogue Electronics for Engineers II	4.0E	1
	Electives (minimum)	3.0	
CS 322:	Classical Control Systems Engineering	3.0E	2
CS 354:	Microcomputer Systems II	2.5E	2
DP 312:	Electrical Machines II	3.0E	2
DP 322:	High Voltage Engineering II	2.0E	2
DP 341:	Electrical Power System Analysis II	2.0E	2
TE 342:	Digital Electronics for Engineers II	4.0E	2
	Electives (minimum)	3.0E	
	<i>Electives (Minimum 6.0 Units)</i>		
CS 334:	Computer Operating Systems	3.0E	2
DP 314:	Power Electronics II	2.0E	1
TE 311:	Introduction to Analogue Telecommunications	3.0E	1
TE 312:	Introduction to Digital Telecommunications	3.0E	2
	<i>Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)</i>		
Fourth Year			
DP 411:	Electrical Machine III	3.0E	1
DP 471:	Electrical Safety & Maintenance	2.0E	1
DP 498:	Final Project I	2.0	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
	Electives (minimum)	8.0E	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
DP 499:	Final Project II	4.0	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
	Electives (minimum)	3.0E	2
	<i>Electives (Minimum 11.0 Units)</i>		
CS 421:	Modern Control Systems Engineering	2.0E	2
DP 472:	Solar Electricity	3.0E	2
DP 470:	Theory of Single Phase Machines	3.0E	2
MG 440:	Engineering Economics	2.0E	1
MG 441:	Human Resources Management	2.0E	1
TE 411:	Microwave Communication	3.0E	1
TE 412:	Introduction to Wireless Communication	3.0E	1
TE 441:	Analogue Electronics for Engineers III	4.0E	1
	<i>Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)</i>		

B. SC. (ELECTRICAL POWER ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 106:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 110:	Workshop Training I	3.0	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
CS 172:	Computer Programming in Pascal	2.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 111:	Workshop Training II	3.0	2
ME 106:	Strength of Materials I	2.0E	2
TE 171:	Introduction to Electronics Engineering	3.0E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
Second Year			
CS 211:	Measurements & Instrumentation Engineering I	3.0E	1
CS 231:	Computer Programming in C	2.0E	1
DP 271:	Electrical Network Analysis I	3.0E	1
DP 273:	Engineering Electromagnetics I	2.0E	1
ME 206:	Strength of Materials II	3.0E	1
ME 215:	Structure and Application of Electrical Materials	1.0E	1
MT 261:	Several Variable Calculus for Non Majors	3.0E	1
TE 241:	Analogue Electronic for Engineers I	2.0E	1
CS 212:	Measurements and Instrumentation Engineering II	3.0E	2
CS 251:	Introduction to Computer Engineering	3.0E	2
CS 232:	Introduction to Object-oriented Programming	2.0E	2
DP 272:	Electrical Network Analysis II	3.0E	2
DP 274:	Engineering Electromagnetics II	2.0E	2
ME 207:	Mechanics of Machines	2.0E	2
ME 216:	Classification and testing of Materials	2.5E	2
MT 271:	Statistics for Non Majors	3.0E	2
TE 242:	Digital Electronics for Engineers I	2.0E	2
Third Year			
CS 321:	Introduction to Control Systems Engineering	3.0E	1
DP 311:	Electrical Machines I	3.0E	1
DP 313:	Power Electronics I	3.0E	1
DP 321:	High Voltage Engineering I	3.0E	1
DP 332:	Electrical Power Plants	2.0E	1
DP 341:	Electrical Power System Analysis I	2.0E	1
	Electives (minimum)	4.0E	1
CS 322:	Classical Control Systems Engineering	3.0E	2
DP 312:	Electrical Machines II	3.0E	2
DP 314:	Power Electronics II	2.0E	2
DP322:	High Voltage Engineering II	2.0E	2
DP 331:	Electrical Power Distribution	3.0E	2
DP 342:	Electrical Power System Analysis II	2.0E	2
	Electives (minimum)	3.0E	2
	<i>Electives (Minimum 7.0 Units)</i>		
CS 355:	Computer Hardware	3.0E	1
CS 333:	Computer Operating Systems	3.0E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
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CS 353:	Microcomputer Systems I	2.5E	1
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CS 354:	Microcomputer Systems II	2.5E	2
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Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)

Fourth Year

DP 411:	Electrical Machine III	3.0E	1
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DP 421:	Electrical Insulating Materials	2.0E	1
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DP 442:	Power System Dynamics & Control	3.0E	1
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DP 471:	Electrical Safety & Maintenance	2.0E	1
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DP 498:	Final Project I	2.0	1
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Electives (minimum)	3.0E	1	
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CS 421:	Modern Control Systems Engineering	2.0E	2
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TM 330:	General Engineering Procedures	2.0E	2
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TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
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DP 412:	Design of Electrical Machines	2.0E	2
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DP 443:	Switch Gear and Protection Engineering	2.0E	2
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DP 499:	Final Project II	4.0	2
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MG 445:	Entrepreneurship for Engineers	3.0E	2
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Electives (minimum)	1.0E	2	
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Electives (Minimum 4.0 Units)

CS 453:	Microcomputer Systems III	2.0E	1
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CS 454:	Microcomputer Systems IV	2.0E	2
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DP472:	Solar Electricity	3.0E	2
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DP 470:	Theory of Single Phase Machines	3.0E	2
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MG 440:	Engineering Economics	2.0E	1
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MG 441:	Human Resources Management	2.0E	1
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Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)

B. SC. (TELECOMMUNICATIONS ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
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CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
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DS 101:	Development Perspectives I	2.0E	1
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PD 100:	Engineering Drawing	2.5	1
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SD 105:	Statics	3.0E	1
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<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 110:	Workshop Training I	3.0	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
CS 172:	Computer Programming in Pascal	2.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 111:	Workshop Training II	3.0	2
ME 106:	Strength of Materials I	2.0E	2
TE 171:	Introduction to Electronics Engineering	3.0E	2
Second Year			
CS 211:	Measurements & Instrumentation Engineering I	3.0E	1
CS 231:	Computer Programming in C	2.0E	1
CS 241:	Computer Networking I	2.0E	1
DP 271:	Electrical Network Analysis I	3.0E	1
DP 273:	Engineering Electromagnetics I	2.0E	1
ME 215:	Structure and Application of Electrical Materials	1.0E	1
MT 261:	Several Variable Calculus for Non Majors	3.0E	1
TE 241:	Analogue Electronic for Engineers I	2.0E	1
CS 212:	Measurements and Instrumentation Engineering II	3.0E	2
CS 251:	Introduction to Computer Engineering	3.0E	2
CS 232:	Introduction to Object-oriented Programming	2.0E	2
DP 272:	Electrical Network Analysis II	3.0E	2
DP 274:	Engineering Electromagnetics II	2.0E	2
MT 271:	Statistics for Non Majors	3.0E	2
TE 242:	Digital Electronics for Engineers I	2.0E	2
CS 242:	Computer Networking II	2.0E	2
Third Year			
CS 321:	Introduction to Control Systems Engineering	3.0E	1
CS 341:	Network Routers and Routing	2.0E	1
CS 353:	Microcomputer Systems I	2.0E	1
TE 311:	Introduction to Analogue telecommunications	3.0E	1
TE 341:	Analogue Electronic for Engineers II	4.0E	1
CS 342:	LAN Switching	2.0E	2
TE 312:	Introduction to Digital Telecommunications	3.0E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
TE313:	Introduction to Switching and Transmission	2.0E	2
TE342:	Digital Electronics for Engineers II	4.0E	2
	Electives (minimum)	6.0	
	<i>Electives (Minimum 6.0 Units)</i>		
CS 322:	Classical Control Systems Engineering	3.0E	
CS 332:	Object-Oriented Program Design and Analysis	3.0E	
CS 333:	Computer Operating Systems	3.0E	
CS 354:	Microcomputer Systems II	2.5E	
DP 313:	Power Electronics I	3.0E	
DP 314:	Power Electronics II	2.0E	
DP 331:	Electrical Power Plants	2.0E	
DP 333:	Introduction to Power Engineering I	2.0E	
DP 334:	Introduction to Power Engineering II	2.0E	
TE 314:	Introduction to Information Theory	2.0E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		
Fourth Year			
DP 471:	Electrical Safety & Maintenance	2.0E	1
TE 411:	Microwave Communication	4.0E	1
TE 441:	Analogue Electronics for Engineers III	4.0E	1
TE 498:	Final Project I	2.0	1
TE 413:	Introduction to Telecommunication Networks	2.0E	1
	Electives (minimum)	4.0E	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
TE 412:	Introduction to Wireless Communication	3.0E	2
TE 442:	Digital Electronics for Engineers III	3.0E	2
TE 499:	Final Project II	4.0	2
	Electives (minimum)	3.0	2
	<i>Electives (Minimum 7.0 Units)</i>		
CS 421:	Modern Computer Systems Engineering	2.0E	
CS 452:	Microcomputer Systems III	2.0E	
MG 440:	Engineering Economics	2.0E	
MG 441:	Human Resources Management	2.0E	
TE 471:	Introduction to VLSI	3.0E	

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
TE 480:	Digital Signal Processing	2.0E	
TE 481:	Television Engineering	2.0E	
DP 421:	Electrical Insulating Materials	2.0E	1
TE 482:	Introduction to Analogue Filters	2.0E	
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			

FACULTY OF MECHANICAL AND CHEMICAL ENGINEERING

B. SC. (CHEMICAL AND PROCESS ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 112:	Workshop Training I	2.5	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
DP 172:	Fundamentals of Electrical Engineering	2.0E	2
EG 113:	Workshop Training II	2.5	2
CP 102:	Fundamentals of Chemical & Process Engineering I	1.0E	2
ME 106:	Strength of Materials 1	2.0	2
PD 101:	Computer Aided Drafting	2.0	2

Second Year

CP 201:	Materials and Energy Balance	3.0E	1
CP 211:	Chemical Engineering Fluid Mechanics	3.0E	1
CH 250:	Inorganic Chemistry	3.0E	1
ME 206:	Strength of Materials II	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
CH 240:	Physical Chemistry	3.0E	2
CH 260:	Organic Chemistry	3.0E	2
CP208:	Computer Application in Chemical Engineering	3.0	2
CP 270:	Chemical Engineering Laboratory I	2.0	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
ME 207:	Mechanics of Machines	2.0E	2
ME212:	Deterioration of Materials in Service	1.0E	2
ME216:	Classification of Materials and Testing	2.5E	2
MT 271:	Statistics for Non-Majors	3.0E	2
Third Year			
CP 302:	Unit Operations I	3.0E	1
CP 303:	Chemical Engineering Thermodynamics	3.0E	1
CP 305:	Process Engineering and Design I	4.0E	1
CP 308:	Computer Application in Chemical Engineering	3.0	1
	Electives (minimum)	5.0	1
CP 304:	Heat and Mass Transfer	3.0E	2
CP 307:	Chemical Reaction Engineering	3.0E	2
CP 315:	Chemical Engineering Laboratory II	1.0	2
TM 330:	General Engineering Procedures	2.0E	2
MG 340:	Engineering Operations Management I	2.0E	2
	Electives (minimum)	6.0	2
<i>Electives (Minimum 11.0 Units) for semester 1 and 2</i>			
CP 371:	Industrial Organic Chemistry	1.5	
CP 372:	Biochemical Engineering Principles	1.5	
CP 373:	Process & Plant Design for Food & Biochemical Products	1.5	
CP 374:	Design of Experiments	1.5	
CP 375:	Process Plant Technology	2.5E	
CP 376:	Paper Technology	2.5	
CP 377:	Pulping Technology	2.5	
MM373:	Electrometallurgy	2.0	
MM342:	Oil and Gas Mining	2.0	
CP 357:	Fuel Chemistry and Technology	2.0E	
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			
Fourth Year			
CP 402:	Unit Operations II	3.0E	1
CP 405:	Process Engineering and Design II	3.0	1
CP 410:	Elements of Environmental Engineering	3.0E	1
CP 498:	Final Project I	2.0	1
MG440:	Engineering Economics	2.0E	1
MG 441:	Human Resource Management	2.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
MG 443:	Industrial Safety and Maintenance	2.0E	1
	Electives (minimum)	3.0	1
CP 406:	Process Dynamics and Control	3.0E	2
CP 415:	Chemical Engineering Laboratory III	1.0	2
TM 400:	Engineering Ethics and Professional Conduct	1.0	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
CP 499:	Final Project II	4.0	2
	Electives (minimum)	8.0	2
<i>Electives (Minimum 11.0 Units) for semester 1 and 2</i>			
CP 471:	Environmental Management and Cleaner Technology	1.5	
CP 472:	Biological Treatment of Industrial Wastes	1.5	
CP 473:	Chemical Process Hazards and Risk Analysis	1.5	
CP 474:	Risk Assessment Techniques	1.5	
CP 475:	Gas-Solid Separation Equipment	1.5	
CP 476:	Microcomputers in Process Industry	1.5	
CP 477:	Introduction to Computer Aided Process Design	1.5	
CP478:	Process Modeling	1.5	
CP 479:	Mathematical Methods in Chemical Engineering	1.5	
MM 478:	Natural Gas	2.5	
EN 438:	Refrigeration and Air Conditioning	3.0E	
EN 434:	Renewable Energy Technologies	3.0E	
ME 417:	Composite Materials	2.0E	
PD 416:	Polymer Engineering	3.0E	
CH 360:	Environmental Analytical Chemistry	2.0E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		

B. SC. (FOOD AND BIOCHEMICAL ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers & Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
EG 112:	Workshop Training I	2.5	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
DP 172:	Fundamentals of Electrical Engineering	2.0E	2
PD 101:	Computer Aided Drafting	2.0	2
FB 102:	Fundamentals of Food and Biochemical Engineering	2.0E	2
ME 106:	Strength of Materials 1	2.0	2
EG 113:	Workshop Training II	2.5	2
Second Year			
CH 240:	Physical Chemistry	3.0E	1
CP 201:	Materials and Energy Balance	3.0E	1
CP 211:	Chemical Engineering Fluid Mechanics	3.0E	1
FB 202:	Food and Biochemical Process Engineering I	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
MC 111:	Fundamentals of Microbiology	2.0E	1
FB 215:	Food and Biochemical Engineering Laboratory	2.0	2
MC 210:	Applied Food Microbiology	2.0E	2
ME 216:	Classification of Materials and Testing	2.5E	2
CH 260:	Organic Chemistry	3.0E	2
CP303:	Chemical Engineering Thermodynamics	3.0E	2
FB 203:	Basic Principles of Biochemical Engineering	3.0E	2
MT 271:	Statistics for Non-Majors	3.0E	2
Third Year			
FB 302:	Food and Biochemical Process Engineering II	3.0E	1
CP 302:	Unit Operations I	3.0E	1
CP 305:	Process Engineering and Design I	4.0E	1
CP 308:	Computer Application in Chemical Engineering	3.0	1
MG 340:	Engineering Operations Management I	2.0E	1
FB 315:	Food and Biochemical Engineering Laboratory II	1.0	2
FB 301:	Engineering Properties of Food	2.5E	2
CP 304:	Heat and Mass Transfer	3.0E	2
FB 307:	Food and Biochemical Reaction Engineering	3.0E	2
<i>Electives (Minimum 11.0 Units)</i>			
FB 373:	Dairy Process Technology	1.5	
CP 371:	Industrial Organic Chemistry	1.5	

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
CP 374:	Experimental Design	1.5	
FB 372:	Fruits and Vegetable Processing Technology	1.5	
FB 375:	Energy Resources Conversion & Utilization in Food Industry	2.0	
FB 371:	Biochemical Engineering Principles of Fermentation	2.5	
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			

Fourth Year

CP 402:	Unit Operations II	3.0E	1
FB 410:	Environmental Protection and Industrial Hygiene	3.0E	1
FB441:	Quality Control in Food Biochemical Products	2.0E	1
FB 442:	Food & Biochemical Engineering Design & Sanitation	3.0E	1
FB 498:	Final Project I	2.0	1
MG440:	Engineering Economics	2.0E	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0	2
FB 415:	Food and Biochemical Engineering Laboratory III	1.0	2
MG 441:	Human Resource Management	2.0E	2
CP 406:	Process Dynamics and Control	3.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
FB 499:	Final Project II	4.0	2

Electives (Minimum 6.0 Units)

FB 473:	Cereals and Oilseeds Processing Technology	1.0	
FB 475:	Instrumental and Analytical Methods	2.0	
FB 478:	Modeling of Bioprocesses	2.0	
CP 473:	Chemical Process Hazards and Risk Analysis	1.5	
CP 474:	Risk Assessment Techniques	1.5	
CP 475:	Gas-Solid Separation Equipment	1.5	
FB 474:	Sugar Technology	1.0	
CP 477:	Introduction to Computer Aided Process Design	1.5	
CP 479:	Mathematical Methods in Chemical Engineering	1.5	
CP 471:	Environmental Management and Cleaner Technology	1.5	
FB 476:	New Developments in Food & Biochemical Engineering	2.0	
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			

B. SC. (MINING ENGINEERING)

First Year

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers & Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 114:	Workshop Training I	2.5	1
GY 100:	Introduction to Geology and Geological Processes	3.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
ME 106:	Strength of Materials I	2.0	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 115:	Workshop Training II	2.0	2
GY 120:	Earth Materials (Rocks and Minerals)	3.0E	2
PD 101:	Computer Aided Drafting	2.0	2

Second Year

GY 326:	Introduction to Hydrogeology	2.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
SD 221:	Theory of Statically Determinate Structures	3.0E	1
WR 211 :	Fluid Mechanics for Civil Engineers	3.5E	1
TR 110:	Surveying	4.0E	1
MM251:	Mineral Processing I	3.0E	1
GY 364:	Metallic Mineral Deposits and Ore Microscopy	4.0E	2
EN 226:	Thermodynamics I	3.0E	2
ME212:	Deterioration of Materials in Service	1.0E	2
ME216:	Classification of Materials and Testing	2.5E	2
MM 202:	Introduction to Mineral Engineering	2.0E	2
MT 271:	Statistics for Non-Majors	3.0E	2

Third Year

MG 340:	Engineering Operations Management I	2.0E	1
MM 301:	Mine Transportation and Material Handling	2.0E	1
MM 310:	Principles and Application of Explosives	2.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
MM 315:	Computer Applications in Mining	3.0	1
MM 322:	Mine Surveying	4.0E	1
MM 325:	Surface Mining Methods	3.0E	1
MM 326:	Underground Mining Methods	3.0E	1
MG 341:	Engineering Operations Management II	2.0E	2
MM 304:	Rock Mechanics	3.0E	2
MM 312:	Mineral Processing Techniques I	3.0E	2
MM 321:	Drilling and Blasting Methods	2.0E	2
MM 330:	Mining Engineering Laboratory I	2.0	2
MM 355:	Mineral Processing Laboratory I	2.0	2
	Electives (minimum)	9.0	
<i>Elective Courses</i>			
MM 341:	Coal Mining	2.0E	
MM 342:	Oil and Gas Mining	2.0E	
MM 343:	Geostatistics	2.0E	
MM 345:	Gemology	2.0E	
MM 347:	Small-Scale Mining Techniques	2.0E	
MM 371:	Metallurgical Accounting	2.0E	
MM 373:	Electrometallurgy	2.0E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		
Fourth Year			
MM 410:	Environmental Engineering for Mining	3.0E	1
GY 402:	Industrial Mineral Deposits and Fossil Fuels	2.0E	1
MG 440:	Engineering Economics	2.0E	1
MM 401:	Safety Engineering and Mine Rescue	2.0E	1
MM 404:	Mine Cost Engineering	1.0E	1
MM 405:	Minerals Economics	3.0E	1
MM 425:	Open Pit Mining	2.0E	1
MM 498:	Final Project I	2.0	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
MM 426:	Underground Pit Mining	2.0E	2
MM 428:	Mine Ventilation	2.0E	2
MM 430:	Mining Engineering Laboratory II	2.0	2
MM 499:	Final Project II	4.0	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
	Electives (minimum)	8.0	
	<i>Elective Courses</i>		
MM 445:	Mining Machines and Equipment	2.5E	
MM 446:	Introduction to Mine Design	3.0E	
MM 471 :	Coal Processing	2.0E	
MM 478:	Gas Conditioning and Processing	2.5E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		

B. SC. (MINERAL PROCESSING ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers & Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 114:	Workshop Training I	2.5	1
GY 100:	Introduction to Geology and Geological Processes	3.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 115:	Workshop Training II	2.0	2
GY 120:	Earth Materials (Rocks and Minerals)	3.0E	2
PD 101:	Computer Aided Drafting	2.0	2

Second Year

CH 240:	Physical Chemistry	3.0E	1
CH 250:	Inorganic Chemistry	3.0E	1
CP 201:	Materials and Energy Balance	3.0E	1
CP 211:	Chemical Engineering Fluid Mechanics	3.0E	1
MM 251:	Mineral Processing I	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
MM 202:	Introduction to Mineral Engineering	2.0E	2
ME 207:	Mechanics of Machines	2.0E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
ME212:	Deterioration of Materials in Service	1.0E	2
ME216:	Classification of Materials and Testing	2.5E	2
CH 271:	Chemical Laboratory for Mineral processing	1.5	2
GY 364:	Metallic Mineral Deposits and Ore Microscopy	4.0E	2
MT 271:	Statistics for Non-Majors	3.0E	2
Third Year			
CP 303:	Chemical Engineering Thermodynamics	3.0E	1
CP 305:	Process Engineering and Design I	4.0E	1
MG 340:	Engineering Operations Management I	2.0E	1
MM 301:	Mine Transportation and Material Handling	2.0E	1
MM 315:	Computer Applications in Mining	3.0	1
MM 351:	Mineral Processing II	3.0E	1
MM 358:	Pyrometallurgy	3.0E	1
	Electives (Minimum 9.0 Units)		
MG 341:	Engineering Operations Management II	2.0E	2
MM 312:	Mineral Processing Techniques I	3.0E	2
MM 355:	Mineral Processing Laboratory I	2.0	2
MM 357:	Hydrometallurgy	2.0E	2
CP 307:	Chemical Reaction Engineering	3.0E	2
	Electives (minimum)	9.0	
	<i>Elective Courses</i>		
MM 341:	Coal Mining	2.0E	
MM 342:	Oil and Gas Mining	2.0E	
MM 343:	Geostatistics	2.0E	
MM 345:	Gemology	2.0E	
MM 347:	Small-Scale Mining Techniques	2.0E	
MM 371:	Metallurgical Accounting	2.0E	
MM 373:	Electrometallurgy	2.0E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		
Fourth Year			
MM 410:	Environmental Engineering for Mining	3.0E	1
GY 402:	Industrial Mineral Deposits and Fossil Fuels	2.0	1
MG440:	Engineering Economics	2.0E	1
MM 401:	Safety Engineering and Mine Rescue	2.0E	1
MM 404:	Mine Cost Engineering	1.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
MM 498:	Final Project I	2.0	1
CP 406:	Process Dynamics and Control	3.0E	2
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
MM 455:	Mineral Processing Laboratory II	2.0	2
MM 460:	Design and Operation of Mineral Processes	2.0E	2
MM 499:	Final Project II	4.0	2
	Electives (minimum)	9.0	

Electives Courses

MM 445:	Mining Machines and Equipment	2.5E	
MM 446:	Introduction to Mine Design	3.0E	
MM 471 :	Coal Processing	2.0E	
MM 478:	Gas Conditioning and Processing	2.5E	

Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET)

B. SC. (MECHANICAL ENGINEERING)

GENERAL STREAM

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 116:	Workshop Training I	2.5	1
ME 112:	Testing of Materials	1.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
ME 106:	Strength of Materials I	2.0	2
ME 116:	Structure & Transformation of Materials	3.0E	2
ME 170:	Materials Technology Practical I	0.5	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
PD 101:	Computer Aided Drafting	2.0	2
PD 152:	Fundamentals of Industrial Design Engineering	2.0	2
EG 117	Workshop Training II	2.5	2
Second Year			
DP 211:	Fundamentals in Electrical Machines & Power Systems	3.0E	1
EN 228:	Fluid Mechanics I	3.0E	1
ME 206:	Strength of Materials II	3.0E	1
ME 211:	Metals and Non metallic Materials	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
PD 201:	Design Methodology	2.0E	1
EN 226:	Thermodynamics I	3.0E	2
EN 270:	Practicals in Thermofluids	1.0	2
ME 208:	Dynamics	2.0E	2
ME 212:	Deterioration of Materials	1.0E	2
ME 270:	Materials Technology Practical II	0.5	2
MT 271:	Statistics for Non-Majors	3.0E	2
PD 202:	Machine Elements I	3.0E	2
PD 252:	Industrial Design Engineering I	2.0E	2
TE 171:	Introduction to Electronics Engineering	3.0E	2
Third Year			
EN 326:	Thermodynamics II	2.0E	1
EN 329:	Internal Combustion Engines	2.0E	1
EN 334:	Control Engineering	3.0E	1
EN 335:	Turbomachinery	2.0E	1
MG 340:	Engineering Operations Management I	2.0E	1
PD 211:	Principles of Metal Cutting and Metal Forming	2.0E	1
PD 302:	Machine Elements II	3.0E	1
PD 305:	Design Project 1	1.0	1
PD 352:	Industrial Design Engineering I	2.5E	1
	Electives (minimum)	0.0	1
PD 315	Metal Forming	3.0E	2
EN 370:	Practicals in Heat Engines	1.0	2
MG 341:	Engineering Operations Management II	2.0E	2
ME 306	Solid Mechanics	3.0E	2
PD 212:	Metal Cutting Processes	2.0E	2
PD 306:	Design Project II	1.0	2
PD 308:	Mechanical Vibrations	2.5E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
PD 370:	Practical in Production Engineering	1.0	2
	Electives (minimum)	3.0	2 O
	<i>Electives (Minimum 3.0 Units)</i>		
EN 328:	Fluid mechanics II	3.0E	1 O
PD 309:	Dynamics of Rotating Machines	2.0E	1 O
PD 321:	Machine Tools I	2.0E	1 O
PD 361:	Engineering Metrology	2.0E	1 O
PD 303:	Computer Aided Design	2.0E	2 O
PD 313:	Casting	2.0E	2 O
EN 339:	Industrial Energy Management	2.0E	2 O
PD 316:	Polymer Engineering	3.0E	2 O
PD 332:	Computer Aided Manufacturing	2.0E	2 O
	Any Approved Course Modules at UDSM (3.0 Units maximum from outside CoET per programme)		
Fourth Year			
MG 440:	Engineering Economics	2.0E	1
MG 441:	Human Resource Management	2.0E	1
MG 443:	Industrial Safety and Maintenance	2.0E	1
PD 402:	Material Handling Systems	2.0E	1
PD 498:	Final Project I	2.0	1
	Electives (minimum)	3.0	1 O
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0	2
MG 442:	Operations research	2.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
PD 499:	Final Project II	4.0	2
	Electives (minimum)	3.0	2 O
	Electives (Minimum 6.0 Units)		
EN 434:	Renewable Energy Technologies	3.0E	1 O
EN 435:	Automotive Engineering	3.0E	1 O
ME 406:	Finite Elements Method	2.0	1 O
ME 417:	Composite Materials	2.0	1 O
PD 408:	Noise and Vibration Control	2.0E	1 O
PD 431:	Automation and Robotics	3.0	1 O
EN 438:	Refrigeration and Air-conditioning	3.0E	2 O
ME 416:	Welding Metallurgy	2.0	2 O

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
PD 441:	Manufacturing Systems	2.0E	2
PD 316:	Polymer Engineering	3.0E	2
PD 451:	Ergonomics	2.0E	2
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			

B. SC. (MECHANICAL ENGINEERING)

ENERGY STREAM

Third Year

EN 326:	Thermodynamics II	2.0E	1
EN 328:	Fluid Mechanics II	3.0E	1
EN 329:	Internal Combustion Engines	2.0E	1
EN 333:	Pumps and Turbines	3.0E	1
EN 334:	Control Engineering	3.0E	1
MG 340:	Engineering Operations Management I	2.0E	1
PD 211	Principles of Metal Cutting and Metal Forming	2.0E	1
PD 302:	Machine Elements II	3.0E	1
PD 305:	Design Project 1	1.0	1
	Electives (minimum)	1.0	1
EN 339:	Principles of Indust.Energy & Environmental Mgmt	3.0E	2
EN 370:	Practicals in Heat Engines	1.0	2
MG 341 :	Engineering Operations Management II	2.0	2
PD 212:	Manufacturing Technology 1	3.0E	2
PD 306:	Design Project II	1.0	2
	Electives (minimum)	9.0	2
<i>Electives (Minimum 10.0 Units)</i>			
EN 338:	Computer Applications in Energy Engineering	3.0E	
ME 306	Solid Mechanics	3.0E	
PD 303:	Computer Aided Design	2.0	
PD 308:	Mechanical Vibrations	2.5E	
PD 309:	Dynamics of Rotating Machines	2.0E	
PD 313:	Casting	2.0E	
PD 352:	Industrial Design Engineering	2.5E	
Any Approved Course Modules at UDSM (4.0 Units maximum from outside CoET per programme)			

Fourth Year

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
EN 432:	Energy Conversion Technologies	2.0E	1
EN 434:	Renewable Energy Technologies	3.0E	1
MG 440:	Engineering Economics	2.0E	1
MG 441:	Human Resource Management	2.0E	1
MG 443:	Industrial Safety and Maintenance	2.0E	1
EN 498:	Final Project I	2.0	1
	Electives (minimum)	2.0	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
EN 436:	Power Plants	2.0E	2
EN 438:	Refrigeration and Air Conditioning	3.0E	2
EN 499:	Final Project II	4.0	2
MG 445:	Entrepreneurship for Engineers	3.0	2
	Electives (minimum)	5.0	2
	<i>Electives (Minimum 7.0 Units)</i>		
EN 435:	Automotive Engineering	3.0E	
ME 417:	Composite Materials	2.0E	
MG 442:	Operations Research	2.0E	
PD 312:	Manufacturing Technology II	2.0E	
PD 402:	Material Handling Systems	2.0E	
PD 408:	Noise and Vibration Control	2.0E	
PD 416:	Polymer Engineering	3.0E	
PD 451:	Ergonomics	2.0E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		

B. SC. (ELECTROMECHANICAL ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
EG 116:	Workshop Training I	2.5	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
ME 106:	Strength of Materials	2.0	2
PD 101:	Computer Aided Drafting	2.0	2
PD 152:	Fundamentals of Industrial Design Engineering	2.0	2
EG 117	Workshop Training II	2.5	2
Second Year			
EN 228:	Fluid Mechanics I	3.0E	1
DP 271:	Electrical Network Analysis I	3.0E	1
DP 273:	Engineering Electromagnetics I	2.0E	1
ME 206:	Strength of Materials II	3.0E	1
ME 215:	Properties of Electrical Materials	1.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
PD 201:	Design Methodology	2.0E	1
DP 212:	Fundamentals of Electrical Machines and Measurements	3.0E	1
EN 226:	Thermodynamics I	3.0E	2
EN 270:	Practicals in Thermofluids	1.0	2
DP 272:	Electrical Network Analysis II	3.0E	2
ME 208:	Dynamics	2.0E	2
ME216:	Classification of Materials and Testing	2.5E	2
MT 271:	Statistics for Non-Majors	3.0E	2
PD 202:	Machine Elements I	3.0E	2
PD 252:	Industrial Design Engineering I	2.0E	2
ME 207:	Mechanics of Machines	2.0E	2
TE 171:	Introduction to Electronics for Engineers	3.0E	2
Third Year			
EN 329:	Internal Combustion Engines	3.0E	1
DP 313:	Power Electronics I	3.0E	1
MG 340:	Engineering Operations Management I	3.0E	1
EN 334:	Control Engineering	3.0E	1
PD 302:	Machine Elements II	3.0E	1
PD 305:	Design Project I	4.0E	1
TE 351:	Analogue Electronics for Non Majors	2.5E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
	Electives (minimum)	4.0	1
EN 370:	Practicals in Heat Engines	1.0	2
DP 313:	Power Electronics II	3.0E	2
MG 341:	Engineering Operations Management II	2.0E	2
PD 212:	Manufacturing Technology I	3.0E	2
PD 306:	Design Project II	1.0	2
PD 308:	Mechanical Vibrations	2.5E	2
TE 352:	Digital Electronics for Non Majors	2.5E	2
	Electives (minimum)	3.0	2
	<i>Electives (Minimum 7.0 Units)</i>		
CS 353:	Microcomputer Systems I	2.0E	
CS 354:	Microcomputer Systems II	2.0E	
EN 326:	Thermodynamics II	2.0E	
EN 335:	Turbomachinery	2.0E	
PD 303:	Computer Aided Design	2.0E	
PD 313:	Casting	2.0E	
PD 331:	Automation of Manufacturing	3.0E	
PD352:	Industrial Design Engineering II	2.5E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		
Fourth Year			
MG 441:	Human Resource Management	2.0E	1
MG 443:	Industrial Safety and Maintenance	2.0E	1
EN 498:	Final Project I	2.0	1
	Electives (minimum)	9.0	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	2.0E	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
EN 499:	Final Project II	4.0	2
	Electives (minimum)	5.0	2
	<i>Electives (Minimum 14.0 Units)</i>		
DP 412:	Design of Electrical Machines	3.0E	
EN 435:	Automotive Engineering	2.0E	
EN 438:	Refrigeration and Air-conditioning	2.0E	
ME 417:	Composite Materials	2.0E	
MG 441:	Human Resource Management	2.0E	

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
PD 408:	Noise and Vibration Control	2.0E	
PD 431:	Robotics	2.0E	
TE 442:	Digital Electronics for Engineers III	3.0E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		

B. SC. (PRODUCTION ENGINEERING)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
EG 116:	Workshop Training I	2.5	1
ME 112:	Testing of Materials	1.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
EG 117	Workshop Training II	2.5	2
ME 106:	Strength of Materials I	2.0	2
ME 116:	Structure& Transformation of Materials	3.0E	2
ME 170:	Materials Technology Practical I	0.5	2
PD 101:	Computer Aided Drafting	2.0	2
PD 152:	Fundamentals of Industrial Design Engineering	2.0	2
TE 171:	Introduction to Electronics Engineering	3.0E	2

Second Year

EN 228:	Fluid Mechanics I	3.0E	1
ME 206:	Strength of Materials II	3.0E	1
ME 211:	Metals and Non metallic Materials	3.0E	1
MT 261:	Several Variables Calculus for Non-Majors	3.0E	1
PD 201:	Design Methodology	2.0E	1
PD 211:	Principles of Metal Cutting and Metal Forming	2.0E	1
TE 241:	Analogue Electronic for Engineers I	3.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
ME 208:	Dynamics	2.0E	2
ME 212:	Deterioration of Materials	2.0E	2
ME 270:	Materials Technology Practicals II	2.0E	2
MT 271:	Statistics for Non-Majors	3.0E	2
PD 202:	Machine Elements I	3.0E	2
PD 212:	Metal Cutting Processes	3.0E	2
PD 252:	Industrial Design Engineering I	2.0E	2
TE 242:	Digital Electronics for Engineers I	2.0E	2
Third Year			
MG 340:	Engineering Operations Management I	2.0E	1
PD 302:	Machine Elements II	3.0E	1
PD 303:	Computer Aided Design	2.0E	1
PD 305:	Design Project 1	1.0	1
PD 321:	Machine Tools I	2.0E	1
PD 352:	Industrial Design Engineering II	2.5E	1
PD 361:	Engineering Metrology	2.0E	1
PD 315:	Metal Forming	3.0E	1
MG 341:	Engineering Operations Management II	2.0E	2
PD 306:	Design Project II	1.0	2
PD 313:	Casting	2.0E	2
PD 316:	Polymer Engineering	3.0E	2
PD 332:	Computer Aided Manufacturing	2.0E	2
PD 353:	Ergonomics	2.0E	2
PD 370:	Practical in Production Engineering	1.0	2
	Electives (minimum)	3.0	2
	<i>Electives Courses (Minimum 6.0 Units)</i>		
PD 308:	Mechanical Vibrations	2.5E	
PD 312:	Advanced Methods of Machining	2.0E	
PD 314:	Foundry Engineering	2.5E	
PD 322:	Machine Tools II	2.5E	
	Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)		
Fourth Year			
MG 437:	Mechanical Systems Control	2.0E	1
MG 440:	Engineering Economics	2.0E	1
MG 441:	Human Resource Management	2.0E	1

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
PD 415:	Tool Engineering	2.0E	1
PD 431:	Automation and Robotics	3.0E	1
MG 443:	Industrial Safety and Maintenance	2.0E	1
PD 402:	Material Handling Systems	2.0E	1
PD 498:	Final Project I	2.0	1
	Electives (minimum)	3.0	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0	2
MG 445:	Entrepreneurship for Engineers	3.0E	2
PD 441:	Manufacturing Systems	2.0E	2
PD 499:	Final Project II	4.0	
	Electives (minimum)	3.0	
<i>Electives Courses (Minimum 6.0 Units)</i>			
ME 416:	Welding Metallurgy	2.0	
ME 417:	Composite Materials	2.0	
PD 408:	Noise and Vibration Control	2.0E	
PD 308:	Mechanical Vibration	2.0E	
PD 312:	Advanced Methods of Machining	2.0E	
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			

B. SC. (INDUSTRIAL ENGINEERING AND MANAGEMENT)

First Year

CL 111:	Communication Skills for Engineers	2.0E	1
CS 171:	Introduction to Computers and Programming in Pascal	2.0E	1
DS 101:	Development Perspectives I	2.0E	1
PD 100:	Engineering Drawing	2.5	1
SD 105:	Statics	3.0E	1
MT 161:	Matrices and Basic Calculus for Non-Majors	3.0E	1
EG 116:	Workshop Training I	2.5	1
DP 171:	Fundamentals of Electrical Engineering I	2.0E	1
MG 120:	Introduction to Entrepreneurship	1.0	2
DS 102:	Development Perspectives II	2.0E	2
MT 171:	One Variable Calculus & Diff. Equation for Non-Majors	3.0E	2
EG 117:	Workshop Training II	2.5	2
PD 101:	Computer Aided Drafting	2.0	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
DP 172:	Fundamentals of Electrical Engineering II	2.0E	2
PD 152:	Fundamentals of Industrial Design Engineering	2.0	2
ME 106:	Strength of Materials	2.0	2
MG 100:	Fundamentals of Indust. Engineering & Management	2.0E	2
Second Year			
MG 201:	Design of Work Methods I	2.0E	1
MG 220:	Project Management	2.0E	1
PD 201:	Design Methodology	2.0E	1
CS 231:	Computer Programming in C	2.0E	1
MT 261:	Several Variables Calculus for Non- majors	3.0E	1
MG 255:	Information Technology	2.0E	1
MG 261:	Design of Products/ Services I	2.0E	1
ME 206:	Strength of Material II	3.0E	1
MG 202:	Design of Work Methods II	2.0E	2
PD 252:	Industrial Design Engineering I	2.0	2
MT 271:	Statistics for Non-majors	3.0E	2
MG 232:	Industrial Psychology	2.0E	2
CS 232:	Introduction to Object Oriented Programming	3.0E	2
EN 226:	Thermodynamics I	2.0E	2
MG 256:	Information Technology II	2.0E	2
MG 262:	Design of Products/ Services II	2.0E	2
MG 245:	Logistics I	2.0E	2
Third Year			
PD 352:	Industrial Design Engineering II	3.0E	1
MG 340:	Engineering Operations Management I	3.0E	1
EN 326:	Thermodynamics II	4.0E	1
MG 360:	Productivity Improvement	3.0E	1
MG 365:	Simulation of Management Systems I	2.0E	1
MG 370:	Change Management	2.0E	1
MG 346:	Logistics II	2.0E	1
MG 355:	Project Appraisal	2.0E	2
MG 341:	Engineering Operations Management II	2.0E	2
PD 353:	Ergonomics	2.0E	2
MG 361:	Process Improvement	3.0E	2
EN 339:	Industrial Energy Management	2.0E	2
MG 366:	Simulation of Management Systems II	2.0E	2

<i>Course Code</i>	<i>Course Title</i>	<i>Units</i>	<i>Semester</i>
Fourth Year			
MG 441:	Human Resource Management	2.0E	1
MG 440:	Engineering Economics	2.0E	1
MG 442:	Operations Research I	2.0E	1
MG 443:	Industrial Safety and Maintenance	2.0E	1
MG 445:	Entrepreneurship for Engineers	3.0E	1
MG499:	Final Project I	2.0	1
	Electives	5.0	1
TM 330:	General Engineering Procedures	2.0E	2
TM 400:	Engineering Ethics and Professional Conduct	1.0E	2
MG 444:	Operations Research II	2.0E	2
PD 441:	Manufacturing Systems	2.0E	2
MG 447:	Systemic Management	2.0E	2
MG 499:	Final Project II	4.0	2
<i>Electives for Third and Fourth Years</i>			
PD 431:	Automation & Robotics	3.0E	1
MG 344:	Management Intervention Methods	3.0E	2
MG 446:	Selected Topics in Industrial Engineering	2.0E	2
Any Approved Course Modules at UDSM (6.0 Units maximum from outside CoET per programme)			