



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences

Study Plan of Bachelor Degree in Dental Technology

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Vision:

The vision of the department is to excel and be pioneer in academic education and scientific resources and to have a leading role in graduating when are qualified both theoretically and practically to work in dental technology field.

Mission:

consistent with the mission of JUST and the Faculty of Applied Medical Sciences our mission at the department of applied dental sciences is to be a premier in improving applied dental sciences through persuing Scientific developments in the dental field and graduating fully qualified graduates to fulfill the need in the community and the region.

Objectives:

1. To provide students with scientific knowledge and skills required for construction of removable complete and partial dentures.
2. To provide students with scientific knowledge and skills required for construction of the fixed prosthodontics including ceramo-metal restorations, full metal restorations, free metal restorations with emphasis on implantology and adhesive restorations.
3. To provide students with theoretical knowledge and practice on different designs of orthodontic appliances and their use in the real orthodontic practices.
4. To teach the student several types and designs of cobalt chromium partial dentures.
5. To provide students with theoretical knowledge and practice on the obturators used for intra-oral maxillofacial prostheses and fabrication of missing parts in the face and body including eye, ear, nose and fingers prosthesis.
6. To equip the students with the professional ethics as a profession.

Job Opportunities:

1. Dental Technician in private laboratories.
2. Dental Technician in the Royal Medical Services.
3. Dental Technician in the laboratories of medical centers own by the government sectors (health ministry)
4. Dental Technician in educational laboratories.
5. Dental Technician in computer aided design\computer aided manufacturing centers.

Study Plan of Bachelor degree in Dental Technology

Numbering and coding system of courses of the study plan.

Course coding

The following codes are used to designate courses:

Department			Level/year	Field	Sequence
A	B	C	x	y	z

The Department codes (A, B, C) are as follows:

Code	Department	Code	Department
TDEN	Dental technology	AS	Audiology and speech therapy
PT	Physical therapy	PARA	Paramedics
OT	Occupational therapy	ADS	Allied dental science
OPT	Optometry	LM	Medical laboratory sciences
RA	Radiology technology		

Course Numbering

- The Dental Technology courses are tabled and numbered in such a manner to recognize each course regarding its subject area, year or level, and semester offered.
- Ex. TDEN xyz: The **TDEN** symbol in the course number denotes Dental Technology and (xyz) is a 3-digits number:

A. The first digit denotes the year level of the course according to student's study plan as follows:

Code	Level/year
1	First
2	Second
3	Third
4	Fourth

B. The second digit denotes the course field subject as follows:

Number	Specialization
0	Introductory and basic dental sciences
1	Removable complete prosthodontics
2	Removable partial prosthodontics
3	Fixed prosthodontics
4	Orthodontics
5	Maxillofacial prosthetics
6	Esthetic prosthodontics
7	Dental implants

C. The third digit denotes sequence of semester during which the course is offered according to the study plan. In way that odd numbers are given to the first and summer semesters while even numbers are given to second semesters.

Example: TDEN 351 Maxillofacial Prosthetics 1 means:

TDEN	3	5	1
Dental Technology	Level (Third year)	Field (Maxillofacial prosthetics)	Sequence (first semester)

A Bachelor of Science (B.Sc.) degree in Dental Technology at JUST is awarded in accordance with the statute stated by JUST regulations for B.Sc. awarding issued by the Dean's Council based on the adjusted 1987 law for awarding scientific degrees and certifications at JUST after completing (132) credit hours successfully.

The study plan composed of the following:

Classification	Credit hours		
	Compulsory	Elective	Total
University requirement	16	9	25
Faculty requirement	24	-	24
Department requirement	83	-	83
Total	123	9	132

A. University Requirements (25 Credit Hours)

1. Compulsory University Requirements: (16 Credit Hours)

Course No.	Course title	Credit hours	Theoretical	Practical
ARB 101	Arabic language	3	3	-
HSS 119	Entrepreneurship and innovation	2	2	-
LG 112 ⁽¹⁾	English language 2	3	3	-
HSS 110	Social Responsibility	3	2	1
MS 100 ⁽²⁾	Military sciences	3	3	-
HSS 129	General Skills	2	2	LG 112

Notice: All non-Arabic speaking international students in the University are required to study one course in Arabic language as a substitute for ARB 101 shown below:

Course No.	Course title	Credit hours	Theoretical	Practical
ARB 101A	Fundamentals of Arabic language (for non-Arabic speaking students) (as a substitute for the course ARB101 Arabic language)	3	3	-

- (1) Pre-requisite: passing LG 099 or passing English Language Placement Test with a grade > 50%.
- (2) This course is required from Jordanian students only; graded on Pass/Fail basis. Students graduating from Royal Military faculty and military candidate's school and equivalent institutes are exempted from taking this course. Non-Jordanian Arabic speaking students are required to take a substitute for this course from the elective courses and in this case the grade of this course is included in their grade point average (GPA).

2. Elective courses: (9 credit hours) selected from the following courses:

	Course No.	Course title	Credit hours	Theoretical	Lab
Group One: Humanities					
1.	ARB 200	Appreciation of literary texts	3	3	-
2.	HSS 103	The Palestinian issue	3	3	-
3.	HSS 115	Islam and recent problems	3	3	-
4.	HSS 116	Economic system in Islam	3	3	-
5.	HSS 121	Principles of sociology	3	3	-
6.	HSS 126	Principles of psychology	3	3	-
7.	HSS 127	Educational technology	3	3	-
8.	HSS 131	Islamic civilization	3	3	-
9.	HSS 132	The history of the city of Jerusalem	3	3	-
10.	HSS 133	Civilization and recent cultures	3	3	-
11.	HSS 135	Islamic culture	3	3	-
12.	HSS 137	Human rights	3	3	-
13.	HSS 153	Islam and contemporary challenges	3	3	-
14.	HSS 161	Contemporary problems	3	3	-
15.	HSS 211	Sociology (in English)	3	3	-
16.	HSS 213	Individual and society	3	3	-
17.	HSS 221	Introduction to psychology (in English)	3	3	-

18.	HSS 231	History of science in Islam	3	3	-
19.	HSS 251	Music tasting	3	3	-
20.	LG 106	Basic German language	3	3	-
Group two: Scientific and Agricultural					
21.	ES 103	Environnement protection (for non environnement sciences students)	3	3	-
22.	ME 102	Introduction to renewable energy	3	3	-
23.	ME 211	Fundamentals of automobile engineering (for non-ME students)	3	3	-
24.	CHE 191	Introduction to the Nanotechnology	3	3	-
25.	NF 177	Food preservation (in English)	3	3	-
26.	AP 200	Farm animal products (for non-agriculture and veterinary students)	3	3	-
27.	PP 200	Home gardens (for non-plant production and soil and irrigation students)	3	3	-
28.	PP 201	Beekeeping (for non-plant production students)	3	3	-
29.	NR 200	Natural resources and human (for non-plant production and soil and irrigation students)	3	3	-
30.	NR 207	Plant earth problems & solutions (for non-agriculture students)	3	3	-
31.	NE 200	Principles in nuclear energy and its peaceful applications	3	3	-
Group Three: Health					
32.	NUR 100	Health promotion (for non-medicine, non-nursing, and non-midwifery students)	3	3	-
33.	ADS 100	Oral and dental health (for non-dentistry and non-dentistry sciences students)	3	3	-
34.	PH 104	Community health and nutrition (for non-medicine, non-	3	3	-

		nursing, and non-midwifery students)			
35.	NUR 109	Family health (for non-medicine, non-nursing, and non-midwifery students)	3	3	-
36.	VM 211	Animal health (not for veterinary medical and agriculture students)	3	3	-
37.	VM 212	Pet animal care (not for veterinary medical students)	3	3	-
38.	VM 213	Animal behavior and welfare	3	3	-
39.	PT 100	Wellness and life styles (for non-physical and occupational therapy students)	3	3	-
40.	OT 100	Disability and the society(not allowed for rehabilitation science dep. students)	3	3	-

B. Faculty Requirements: (24 credit hours) distributed as follows:

Course No.	Course title	Credit hours	Theoretical	Lab	Prerequisite or Co-request
BT 103	General biology	3	3	--	
CHEM 103	General chemistry	3	3	--	
BT107	General biology practical	1	--	1	BT 103 (or Co)
CHEM107	General chemistry lab	1	--	1	CHEM 103 (or Co)
PT 218	Gross anatomy and histology	3	2	1	BT 103 and BT 107
MED 230A	Human physiology	3	3	--	BT 103
MED 230B	Human physiology Lab	1	--	1	MED 230A (or Co)
PH 311	Biostatistics	2	2	--	
PARA 391	Ethics in applied medical careers	1	1	--	
ADS 491	Administration and quality assurance in applied medical sciences	3	3	--	

LM 491	Scientific research methods	1	1	--	PH 311
LM 493	Research project	2	--	2	LM 491(or co)
Total		24	18	6	

C. Department requirements: (83 Credit Hours) distributed as follows:

1. Department requirement Courses from the Faculty of Science and Arts (3 credit hours); distributed as follows:

Course No.	Course title	Credit hours	Theoretical	Lab	Prerequisite (or Co)
PHY 103	General physics	3	3	-	--
TOTAL		3	3	-	

2. Department requirement courses from the Faculty of Medicine (3 credit hours); distributed as follows

Course No.	Course title	Credit hours	Theoretical	Lab	Prerequisite (or Co)
MED 219	Head and neck anatomy	3	2	1	PT 218 (or Co)
TOTAL		3	2	1	

3. Department requirement courses from the department of Applied Dental Sciences (77 credit hours); distributed as follows:

Course No.	Course title	Credit hours	Theoretical	Lab	Prerequisite	Corequisite
ADS 102	Introduction to dental sciences and dental terminology	1	1	-	--	--
ADS 201	Dental morphology and occlusion	1	1	-	ADS 102 (or Co)	--
ADS 203	Dental morphology and occlusion practical	2	-	2	--	ADS 201
ADS 242	Oral pathology	2	2	-	PT 218	--
TDEN 202	Maintenance of equipment and general safety in dental technology laboratories	1	1	-	TDEN 232 (or Co)	--
TDEN 203	Dental materials	2	2	-	ADS 102	--

					(or Co)	
TDEN 205	Dental materials practical	1	-	1	--	TDEN 203
TDEN 207	Fundamentals of dental technology	1	1	-	TDEN 203 (or Co)	--
TDEN 209	Fundamentals of dental technology practical	1	-	1	--	TDEN 207
TDEN 210	Removable complete prosthodontics 1	1	1	-	TDEN 207, ADS 201	--
TDEN 212	Removable complete prosthodontics 1 practical	2	-	2	--	TDEN 210
TDEN 222	Removable partial prosthodontics 1	1	1	-	TDEN 210 (or Co)	--
TDEN 224	Removable partial prosthodontics 1 practical	1	-	1	--	TDEN 222
TDEN 232	Fixed prosthodontics 1	1	1	-	TDEN 207, ADS 201	--
TDEN 234	Fixed prosthodontics 1 practical	2	-	2	--	TDEN 232
TDEN 311	Removable complete prosthodontics 2	1	1	-	TDEN 210	--
TDEN 313	Removable complete prosthodontics 2 practical	2	-	2	--	TDEN 311
TDEN 321	Removable partial prosthodontics 2	1	1	-	TDEN 222	--
TDEN 323	Removable partial prosthodontics 2 practical	2	-	2	--	TDEN 321
TDEN 324	Advanced removable prosthodontics	1	1	-	TDEN 311 TDEN 321	--
TDEN 326	Advanced removable prosthodontics practical	2	-	2	--	TDEN 324
TDEN 331	Fixed prosthodontics 2	1	1	-	TDEN 232	--
TDEN 333	Fixed prosthodontics 2 practical	3	-	3	--	TDEN 331
TDEN 334	Fixed prosthodontics 3	1	1	-	TDEN 331	--
TDEN 336	Fixed prosthodontics 3 practical	2	-	2	--	TDEN 334
TDEN 341	Orthodontics 1	1	1	-	TDEN 207	--
TDEN 343	Orthodontics 1 practical	2	-	2	--	TDEN 341
TDEN 344	Orthodontics 2	1	1	-	TDEN 341	--
TDEN 346	Orthodontics 2 practical	2	-	2	--	TDEN 344
TDEN 351	Maxillofacial prosthetics 1	1	1	-	TDEN 321	--

					(or Co)	
TDEN 353	Maxillofacial prosthetics 1 practical	1	-	1	--	TDEN 351
TDEN 354	Maxillofacial prosthetics 2	1	1	-	TDEN 351	--
TDEN 356	Maxillofacial prosthetics 2 practical	2	-	2	--	TDEN 354
TDEN 421	Applied removable prosthodontics 1	5	-	5	TDEN 324	--
TDEN 422	Applied removable prosthodontics 2	5	-	5	TDEN 421	--
TDEN 431	Applied fixed prosthodontics 1	5	-	5	TDEN 334	--
TDEN 432	Applied fixed prosthodontics 2	5	-	5	TDEN 431	--
TDEN 441	Applied orthodontics	2	-	2	TDEN 344	--
TDEN 461	Esthetic prosthodontics 1	1	1	-	TDEN 334	--
TDEN 462	Esthetic prosthodontics 2	2	-	2	TDEN 461	--
TDEN 463	Esthetic prosthodontics 1 practical	2	-	2	--	TDEN 461
TDEN 472	Dental implants	1	1	-	TDEN 324 TDEN 334	--
TDEN 474	Dental implants practical	2	-	2	--	TDEN 472
LM 493	Research project	2	-	6	LM 491 or(Co)	--
TOTAL		77	22	55		

Study Plan

FIRST YEAR													
First semester							Second semester						
Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite	Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite
			Lecture	Lab						Lecture	Lab		
	University elective	3	3	-	--	--	PT 218	Gross anatomy and histology	3	2	2	BT 103 BT 107	--
LG 112	English language 2	3	3	-	Passing LG 099 or pass the exam level with a marked 50%	-	ADS 102	Introduction to dental sciences and dental terminology	1	1	-	--	--
HSS 110A	The social responsibility	3	2	2	-	-	ARB 101	Arabic language	3	3	-	--	--
CHEM 103	General chemistry	3	3	-	--	--	HSS119A	Entrepreneurship and innovation	2	2	-	-	-
CHEM 107	General chemistry lab	1	-	2	CHEM 103 (or Co)	--	HSS129A	The general skills	2	3	-	LG 112	-
BT 103	General biology	3	3	-	--	--	MS 100	Military sciences	3	3	-	--	--
BT 107	General biology practical	1	-	2	BT 103 (or Co)	--	PHY 103	General physics	3	3	-	--	--
Total		17	14	6			Total		17	17	2		

SECOND YEAR													
First semester						Second semester							
Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite	Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite
			Lecture	Lab						Lecture	Lab		
	University elective	3	3	-	--	--		University elective	3	3	-	--	--
MED 230A	Human physiology	3	3	-	BT 103	--	MED 219	Head and neck anatomy	3	2	0	PT 218 (or Co)	--
MED 230B	Human physiology lab	1	-	2	MED 230A (or Co)	--	MED 219	Head and neck anatomy practical	0	0	2		
TDEN 203	Dental materials	2	2	-	ADS 102 (or Co)	--	PARA 391	Ethics in applied medical careers	1	1	-	--	--
TDEN 205	Dental materials practical	1	-	3	--	TDEN 203	TDEN 202	Maintenance of equipment and general safety in dental technology laboratories	1	1	-	TDEN 232 (or Co)	--
TDEN 207	Fundamentals of dental technology	1	1	-	TDEN 203 (or Co)	--	TDEN 210	Removable complete prosthodontics 1	1	1	-	TDEN 207 ADS 201	--
TDEN 209	Fundamentals of dental technology practical	1	-	3	--	TDEN 207	TDEN 212	Removable complete prosthodontics 1 practical	2	-	6	--	TDEN 210
ADS 201	Dental morphology and occlusion	1	1	-	ADS 102 (or Co)	--	TDEN 222	Removable partial prosthodontics 1	1	1	-	TDEN 210 (or Co)	--
ADS 203	Dental morphology and occlusion practical	2	-	6	--	ADS 201	TDEN 224	Removable partial prosthodontics 1 practical	1	-	3	--	TDEN 222
							TDEN 232	Fixed prosthodontics 1	1	1	-	TDEN 207ADS 201	--
							TDEN 234	Fixed prosthodontics 1 practical	2	-	6	--	TDEN 232
							ADS 242	Oral pathology	2	2	-	MED 218	--
Total		15	10	14			Total		18	12	17		

THIRD YEAR													
First semester						Second semester							
Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite	Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite
			Lecture	Lab						Lecture	Lab		
TDEN 311	Removable complete prosthodontics 2	1	1	-	TDEN 210	--	TDEN 324	Advanced removable prosthodontics	1	1	-	TDEN 311 TDEN 321	--
TDEN 313	Removable complete prosthodontics 2 practical	2	-	6	--	TDEN 311	TDEN 326	Advanced removable prosthodontics practical	2	-	6	--	TDEN 324
TDEN 321	Removable partial prosthodontics 2	1	1	-	TDEN 222	--	TDEN 334	Fixed prosthodontics 3	1	1	-	TDEN 331	--
TDEN 323	Removable partial prosthodontics 2 practical	2	-	6	--	TDEN 321	TDEN 336	Fixed prosthodontics 3 practical	2	-	6	--	TDEN 334
TDEN 331	Fixed prosthodontics 2	1	1	-	TDEN 232	--	TDEN 344	Orthodontics 2	1	1	-	TDEN 341	--
TDEN 333	Fixed prosthodontics 2 practical	3	-	9	--	TDEN 331	TDEN 346	Orthodontics 2 practical	2	-	6	--	TDEN 344
TDEN 341	Orthodontics 1	1	1	-	TDEN 207	--	TDEN 354	Maxillofacial prosthetics 2	1	1	-	TDEN 351	--
TDEN 343	Orthodontics 1 practical	2	-	6	--	TDEN 341	TDEN 356	Maxillofacial prosthetics 2 practical	2	-	6	--	TDEN 354
TDEN 351	Maxillofacial prosthetics 1	1	1	-	TDEN 321 (or Co)	--	ADS 491	Administration and quality assurance in applied medical sciences	3	3	-	--	--
TDEN 353	Maxillofacial prosthetics 1 practical	1	-	3	--	TDEN 351							
PH 311	Biostatistics	2	2	-	--	--							
Total		17	7	30			Total		15	7	24		

FOYRTH YEAR													
First semester						Second semester							
Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite	Course No.	Course name	Total credits	Weekly hours		Prerequisite	Co-requisite
			Lecture	Lab						Lecture	Lab		
TDEN 421	Applied removable prosthodontics 1	5	-	10	TDEN 324	--	TDEN 422	Applied removable prosthodontics 2	5	-	10	TDEN 421	--
TDEN 431	Applied fixed prosthodontics 1	5	-	10	TDEN 334	--	TDEN 432	Applied fixed prosthodontics 2	5	-	10	TDEN 431	--
TDEN 441	Applied orthodontics	2	-	4	TDEN 344	--	TDEN 462	Esthetic prosthodontics 2	2	-	6	TDEN 461	--
TDEN 461	Esthetic prosthodontics 1	1	1	-	TDEN 334	--	TDEN 472	Dental implants	1	1	-	TDEN 324 TDEN 334	--
TDEN 463	Esthetic prosthodontics 1 practical	2	-	6	--	TDEN 461	TDEN 474	Dental implants practical	2	-	6	--	TDEN 472
LM 491	Scientific research methods	1	1	-	PH 311	-	LM 493	Research project	2	-	6	LM 491 or(Co)	--
Total		16	2	30			Total		17	1	38		

Course Description

TDEN 202 Maintenance of equipment and general safety in dental technology laboratories (1 C.H) (Prerequisite: TDEN 232 or Co)

Introduce students to the laboratory equipment and machines and how to operate and maintain them. It is mainly concerned with safety rules that student should follow during their work in the laboratory in order to protect themselves from any hazards that may occur during their work. Also the students will be able to behave well during any emergency situations.

TDEN 203 Dental materials (2 C.H) (Prerequisite: ADS 102 or Co)

A comprehensive study of the chemical and physical properties of materials used in dentistry, with emphasis on those restorative and impression materials and techniques commonly used in dental practice.

TDEN 205 Dental Materials practical (1 C.H) (Corequisite: TDEN 203)

Familiarize students with the materials used in the different fields in dentistry and the techniques used in practical way.

TDEN 207 Fundamentals of dental technology (1 C.H) (Prerequisite: TDEN 203 or Co)

Provide students with the theoretical background and methods used to fabricate the prostheses and dealing with the materials and instruments used in dental technology laboratory.

TDEN 209 Fundamentals of dental technology practical (1 C.H)(Corequisite: TDEN 207)

Provide students with the basic required skills needed in dealing with different materials used in dental laboratory such as waxes, gypsum materials and acrylic polymers.

TDEN 210 Removable complete prosthodontics 1 (1 C.H) (Prerequisite: TDEN 207, ADS 201)

Provide students with a solid theoretical background relevant to technical and clinical aspects needed in the Construction of Complete dentures.

TDEN 212 Removable complete prosthodontics 1 practical (2 C.H)(Corequisite: DEN 210)

Provide students with the required skills necessary in the construction of complete denture, such as setting of acrylic teeth, festooning and curing and finishing of acrylic and use of articulators.

TDEN 222 Removable partial prosthodontics 1 (1 C.H) (Prerequisite: TDEN 210 or Co)

Provide students with a solid theoretical background, relevant to technical and clinical aspects needed in the construction of transitional removable partial dentures (RPDs).

TDEN 224 Removable partial prosthodontics 1 practical (1 C.H) (Corequisite: TDEN 222)

Provide students with the required skills that are necessary in the construction of transitional partial denture, these skills include the principles of the use of surveyors, fabricating wrought wire clasps, setting teeth for partial dentures, festooning and curing acrylic polymers.

TDEN 232 Fixed prosthodontics 1 (1 C.H) (Prerequisite: ADS 201, TDEN 207)

Provide students with a solid theoretical (clinical and technical) background relevant to the laboratory steps involved in the fabrication of metal single crowns, metal fixed partial dentures and post and core.

TDEN 234 Fixed prosthodontics 1 Practical (2 C.H) (Corequisite: TDEN 232)

Provide training on the various laboratory steps involved in the fabrication of metal crowns, metal fixed partial dentures and post-crowns.

TDEN 311 Removable complete prosthodontics 2 (1 C.H) (Prerequisite: TDEN 210)

Provide students with the advanced knowledge needed to fabricate complete dentures especially in cases of malocclusion. These relevant to technical and clinical aspects of complete dentures will be provided.

TDEN 313 Removable complete prosthodontics 2 practical (2 C.H) (Corequisite: TDEN 311)

Provide students with the required practical skills needed in the construction of complete dentures in normal occlusion and in cases of malocclusion such as class II and class III of Angle's classification of malocclusion. In addition this course provides student with skills required for repairing, relining and rebasing of complete dentures along with demonstration on copy denture.

TDEN 321 Removable partial prosthodontics 2 (1 C.H) (Prerequisite: TDEN 222)

Provide students with Theoretical background relevant to technical and clinical aspects to fabricate removable partial dentures constructed of cobalt chromium (co-cr) alloy.

TDEN 323 Removable partial prosthodontics 2 practical (2 C.H) (Corequisite: TDEN 321)

Provide students with sufficient training needed in the construction of (co-cr) removable partial denture, in which students are required to design denture framework, to use surveyors to determine path of insertion and to use the duplicating material like agar-agar and investment material to fabricate the refractory cast on which the waxing of the RPD is carried out.

TDEN 324 Advanced removable prosthodontics (1 C.H) (Prerequisite: TDEN 311, TDEN 321)

Provide students with theoretical knowledge needed in constructing advanced and complex cases of removable partial dentures and complete dentures. This includes the knowledge needed to construct partial prostheses that include precision attachments.

TDEN 326 Advanced removable prosthodontics practical (2 C.H) (Corequisite: TDEN 324)

Provide students with the skills needed to fabricate advanced and complex cases of removable dentures (complete and partial). This course is a complementary to TDEN 222 and TDEN 324 courses.

TDEN 331 Fixed prosthodontics 2 (1 C.H) (Prerequisite: TDEN 232)

Provide students with the theoretical background which includes explanations to technical and clinical aspects of porcelain fused to metal crowns and fixed partial dentures.

TDEN 333 Fixed prosthodontics 2 practical (3 C.H) (Corequisite: TDEN 331)

Provide students with the necessary technical skills required in the construction of porcelain fused to metal crowns and fixed partial denture (bridges) including full waxing restoration, cut back technique, finishing of metal cores, buildup of porcelain and glazing.

TDEN 334 Fixed prosthodontics 3 (1 C.H) (Prerequisite: TDEN 331)

Provide students with the theoretical knowledge on advanced topics in fixed prosthodontics such as advanced occlusion, color characteristics and shade determination, troubleshooting in fabrication of porcelain fused to metal restorations, fixed removable restorations as well as introductory lectures on all ceramic restoration and CAD/CAM system.

TDEN 336 Fixed prosthodontics 3 practical (2 C.H) (Corequisite: TDEN 334)

Provide students with more training on porcelain fused to metal restorations (upper and lower fixed partial dentures).

TDEN 341 Orthodontics 1 (1 C.H) (Prerequisite: TDEN 207)

Provide students with the theoretical background relevant to technical and clinical aspects of the removable orthodontics appliances.

TDEN 343 Orthodontics 1 practical (2 C.H) (Corequisite: TDEN 341)

Provide students with the required skills necessary in the constructing of different removable orthodontic appliances in which students are required to gain skills enabling them to manipulate stainless steel wires from different gauges and to use acrylic polymers to construct orthodontic appliances.

TDEN 344 Orthodontics 2 (1 C.H) (Prerequisite: TDEN 341)

Provide students with the theoretical background relevant to technical and clinical aspects of removable, fixed and functional orthodontic appliances.

TDEN 346 Orthodontics 2 practical (2 C.H) (Corequisite: TDEN 344)

Provide students with the technical skills needed in the construction of removable, fixed and functional orthodontic appliances.

TDEN 351 Maxillofacial prosthetics 1 (1 C.H) (Prerequisite: TDEN 321 or Co)

Provide students with the theoretical (technical and clinical) knowledge necessary to fabricate maxillofacial obturators and their types.

TDEN 353 Maxillofacial prosthetics 1 practical (1 C.H) (Corequisite: TDEN 351)

Provide students with the required practical skills needed in the construction of transitional and interim obturators.

TDEN 354 Maxillofacial prosthetics 2 (1 C.H) (Prerequisite: TDEN 351)

Provide students with the advanced theoretical and technical knowledge and skills to fabricate external maxillofacial prostheses. A solid theoretical background, relevant to technical and clinical aspects of maxillofacial prostheses & materials used.

TDEN 356 Maxillofacial prosthetics 2 practical (2 C.H) (Corequisite: TDEN 354)

Provide students with the necessary skills needed in the construction of external maxillofacial prostheses i.e. eye, ear, and finger prostheses fabricated with special silicone materials for maxillofacial prostheses, as well as providing basic skills needed in coloring silicone to match patient's skin color.

TDEN 421 Applied removable prosthodontics 1 (5 C.H) (Prerequisite: TDEN 324)

Totally practical course where the students gain more training and experience in constructing removable prostheses and night guard. The students work in a real-work environment and are encouraged to apply their previous knowledge to fabricate the prostheses for patients treated at Dental Teaching Center.

TDEN 422 Applied removable prosthodontics 2 (5 C.H) (Prerequisite: TDEN 421)

Totally practical course where the students gain more training and experience in constructing removable partial prostheses. The students will work their patient cases in the Dental Teaching Center. This will enhance their self confidence in making excellent prostheses.

TDEN 431 Applied fixed prosthodontics 1 (5 C.H) (Prerequisite: TDEN 334)

Totally practical course where the students gain more training and experience in constructing different fixed prostheses. Students work in a real-work environment and are encouraged to apply their previous knowledge to fabricate porcelain fused crowns, bridges and post core.

TDEN 432 Applied fixed prosthodontics 2 (5 C.H) (Prerequisite: TDEN 431)

Totally practical course where the students gain more training and experience in constructing metal ceramic crowns and bridges prostheses. Students will work their patient cases in the Dental Teaching Center.

TDEN 441 Applied orthodontics (2 C.H) (Prerequisite: TDEN 344)

Totally practical course which will be held in the Dental Teaching Center. The students gain more training and experience in constructing removable and fixed orthodontic appliances. The students work in a real-work environment and are encouraged to apply their previous knowledge to fabricate such appliances.

TDEN 461 Esthetic prosthodontics 1(1 C.H) (Prerequisite: TDEN 334)

Provide the student with the theoretical knowledge related to resin bonded bridges, porcelain laminate veneers, porcelain inlays and onlays and all ceramic systems i.e In-Ceram, IPS Empress Systems and CAD/CAM.

TDEN 462 Esthetic prosthodontics 2 (2 C.H) (Prerequisite: TDEN 461)

Totally practical course in which the students gain more training and experience in constructing various adhesive restorations and dealing with different all ceramic systems like In-Ceram, IPS Empress systems and CAD/CAM.

TDEN 463 Esthetic prosthodontics 1 practical (2 C.H) (Corequisite: TDEN 461)

Provide students with the required skills and training needed in the construction of resin bonded bridges, porcelain laminate veneer using refractory die technique and pressable ceramic crowns (IPS Empress System).

TDEN 472 Dental implants (1 C.H) (Prerequisite: TDEN 324, TDEN 334)

Provide students with basic knowledge of clinical aspects and laboratory procedures used to fabricate implant supported restorations. Some of the current implant systems available in the market will be represented.

TDEN 474 Dental implants practical (2 C.H) (Corequisite: TDEN 472)

Provide students with the related practical skills required to fabricate implant supported restorations which include receiving and pouring impressions that have dental implants, fabricating over dentures (complete dentures supported on dental implants).

TDEN 493 Research Methodology (1 C.H) (Prerequisite: PH 311 or Co)

Provide students with the knowledge related to scientific research such as scientific methods and critical analysis of research findings. Emphasis on types of research, problem selection and hypothesis writing, research planning and design, data collection and measuring techniques, analysis and interpretation of data, critical analysis of research reports and referencing. Written research proposal is required from students taking the course.