

***(Second Year Curriculum (30 weeks)***  
***Department of Oral & Maxillofacial Surgery***  
**A- Basic information**

<b>1-Subject title</b>	<b>General Anatomy</b>	
<b>2-Number of credits</b>	Theory:2	Laboratory:2
<b>3-Number of contact hours</b>	Theory:1 h/wk.	Laboratory:2 h/wk.
<b>4-Subject time</b>	Second Year	

<b>No.</b>	<b>Title of the lectures</b>	<b>Hours</b>
<b>1</b>	<b>Scalp</b> <ul style="list-style-type: none"> <li>• Layers of the scalp</li> <li>• Muscles of the scalp</li> <li>• Sensory Nerve Supply of the Scalp</li> <li>• Arterial Supply of the Scalp</li> <li>• Venous Drainage of the Scalp</li> <li>• Lymph Drainage of the Scalp</li> <li>• Clinical Notes</li> </ul>	<b>2</b>
<b>2</b>	<b>The orbital region</b> <ul style="list-style-type: none"> <li>• Eyelids</li> <li>• Movements of the Eyelids</li> <li>• Lacrimal Apparatus</li> <li>• Openings into the Orbital Cavity</li> <li>• Nerves of the Orbit</li> <li>• Blood and Lymph Vessels of the Orbit</li> <li>• Structure of the Eye</li> <li>• Clinical Notes</li> </ul>	<b>2</b>
<b>3</b>	<b>The Nasal region</b> <ul style="list-style-type: none"> <li>• The Nose</li> <li>• External Nose</li> <li>• Nerve Supply of the External Nose</li> <li>• Blood Supply and Venous Drainage of the External Nose</li> <li>• Nasal Cavity</li> <li>• Mucous Membrane of the Nasal Cavity</li> <li>• Nerve Supply of the Nasal Cavity</li> <li>• Blood Supply to the Nasal Cavity</li> <li>• Venous Drainage of the Nasal Cavity</li> <li>• Lymph Drainage of the Nasal Cavity</li> <li>• The Paranasal Sinuses</li> <li>• Drainage of Mucus and Functions of Paranasal Sinuses</li> <li>• Clinical Notes</li> </ul>	<b>1</b>

4	<b>Mandibular nerve</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Branches of the Mandibular Nerve</li> <li>• Otic Ganglion</li> <li>• Clinical Notes</li> </ul>	1
5	<b>Face</b> <ul style="list-style-type: none"> <li>• Skin of the Face</li> <li>• Muscles of the Face (Muscles of Facial Expression)</li> <li>• Sensory Nerves of the Face</li> <li>• Arterial Supply of the Face</li> <li>• venous drainage of the Face</li> <li>• venous drainage of the Face</li> <li>• Lymphatic drainage of the face</li> <li>• Facial nerve</li> </ul>	2
6	<b>Oral cavity</b> The Lips The oral Cavity vestibule and Proper Sensory innervation of the Mouth Hard Palate & Soft palate Muscles of the Soft Palate Palatoglossal Arch & Palatopharyngeal Arch	2
7	<b>Tongue</b> <ul style="list-style-type: none"> <li>• Mucous Membrane of the Tongue</li> <li>• Muscles of the Tongue</li> <li>• Movements of the Tongue</li> </ul>	1
8	<b>Temporal region</b> <ul style="list-style-type: none"> <li>• The temporal fossa anatomy</li> <li>• The infratemporal fossa</li> <li>• Communications</li> <li>• Muscles of mastication</li> </ul>	1
9	<b>Parotid gland</b> <ul style="list-style-type: none"> <li>• Parotid Region (Boundaries)</li> <li>• Parotid Gland</li> <li>• Parotid Duct</li> <li>• Innervation of Parotid Gland and Related Structures</li> <li>• Arterial Supply</li> <li>• Venous Drainage</li> <li>• Lymph Drainage</li> <li>• The Buccal Pad of Fat</li> <li>• Clinical Notes</li> </ul>	2
10	<b>The Pterygopalatine fossa</b> <ul style="list-style-type: none"> <li>• Boundaries, Communications and openings</li> <li>• Maxillary nerve</li> <li>• Branches from the pterygopalatine ganglion</li> <li>• THE PTERYGOPALATINE GANGLION</li> <li>• THE VEINS OF THE PTERYGOPALATINE FOSSA</li> </ul>	1

11	<b>Temporomandibular joint</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• The Articular Disk</li> <li>• Retrodiscal Tissue</li> <li>• Capsule</li> <li>• Synovial Membrane</li> <li>• Ligaments</li> <li>• Nerve Supply</li> <li>• Vascular Supply</li> <li>• Movements</li> <li>• Important Relations of the Temporomandibular Joint</li> <li>• Clinical Notes</li> </ul>	2
12	<b>The neck</b> <ul style="list-style-type: none"> <li>• Overview</li> <li>• Skin of the Neck</li> <li>• Fasciae of the Neck</li> <li>• Superficial Cervical Fascia</li> <li>• Deep Cervical Fascia</li> <li>• Cervical Ligaments</li> <li>• Muscles of the Neck</li> <li>• Cervical Plexus</li> <li>• Bones of Neck</li> <li>• Blood Supply</li> <li>• Key Neck Muscles</li> </ul>	2
13	<p style="text-align: center;"><b>Triangles of the neck</b></p> <ul style="list-style-type: none"> <li>• ANTERIOR TRIANGLE</li> <li>• SUBMENTAL TRIANGLE</li> <li>• SUBMANDIBULAR TRIANGLE</li> <li>• CAROTID TRIANGLE</li> <li>• MUSCULAR TRIANGLE</li> <li>• Posterior Triangle</li> <li>• Thyroid Gland</li> <li>• blood supply &amp; venous drainage</li> <li>• nerve supply</li> </ul>	2
14	<p style="text-align: center;"><b>Submandibular region</b></p> <p>MUSCLES OF THE SUBMANDIBULAR REGION The submandibular gland Sublingual Gland</p>	1
15	<b>Root of the neck</b> <ul style="list-style-type: none"> <li>• Muscles of the Root of the Neck</li> <li>• The Thoracic Duct</li> <li>• Main Nerves of the Neck</li> <li>• Cervical Plexus &amp; Brachial Plexus</li> <li>• Lymph Drainage of the Head and Neck</li> <li>• Veins of the Head and Neck</li> </ul>	2

<b>16</b>	<b>Arteries of the neck</b> <ul style="list-style-type: none"> <li>• Common Carotid Artery</li> <li>• Carotid Sinus</li> <li>• Carotid Body</li> <li>• External Carotid Artery</li> <li>• Internal Carotid Artery</li> <li>• Subclavian Arteries (3 parts)</li> <li>• Circle of Willis</li> </ul>	<b>2</b>
<b>17</b>	<b>Brain</b> <ul style="list-style-type: none"> <li>• Nervous System</li> <li>• Gross Anatomy of the Brain</li> <li>• Parts of the Brain</li> <li>• Ventricular System of the Brain</li> <li>• The Venous Blood Sinuses (Dural Sinuses)</li> <li>• Blood Supply of the Brain</li> <li>• Cranial Meninges</li> <li>• Dural Nerve Supply</li> </ul> Dural Arterial Supply Dural Venous Drainage Clinical Focus	<b>1</b>
<b>18</b>	<b>Cranial nerves</b> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Functional Components</li> <li>• Summary of cranial nerves</li> </ul>	<b>1</b>
<b>19</b>	<b>Pharynx</b> <ul style="list-style-type: none"> <li>• Muscles of the Pharynx</li> <li>• Pharynx divisions</li> <li>• Palatine Tonsils</li> <li>• Waldeyer's Ring of Lymphoid Tissue</li> </ul>	<b>1</b>
<b>20</b>	<b>Larynx</b> <ul style="list-style-type: none"> <li>• Cartilages of the Larynx</li> <li>• Membranes and Ligaments of the Larynx</li> <li>• Inlet of the Larynx</li> <li>• Laryngeal Folds</li> <li>• Muscles of the Larynx</li> <li>• Nerve &amp; blood Supply of the Larynx</li> </ul>	<b>1</b>
		<b>30</b>

## *Laboratory sessions*

No.	Title of the sessions	Hours
1	Anatomy of scalp	2
2	Anatomy of face part 1	2
3	Anatomy of face part 2	2
4	Anatomy of parotid region	2
5	Temporal, infratemporal fossa	2
6	muscles of mastication	2
7	Mandibular nerve	2
8	Maxillary artery	2
9	Pterygopalatine fossa	2
10	Maxillary nerve	2
11	Nasal cavity and paranasal sinuses	2
12	Tempromandibular joint (TMJ)	2
13	Orbital region and Muscles of the eye	2
14	Ophthalmic nerve, artery and vein	2
15	anatomy of eyeball	2
16	Anatomy of mouth(The Lips ,oral Cavity,Tongue)	2
17	The Palate	2
18	Superficial anatomy of neck	2
19	Triangles of neck	2
20	Arteries of head and neck (internal carotid artery)	2
21	External carotid artery	2
22	Subclavian artery	2
23	Veins of the Head and Neck (internal jugular vein, subclavian vein, and venus sinuses)	2
24	Anatomy of brain	2
25	Submandibular region	2
26	Anatomy of pharynx	2
27	Lymph drainage of head and neck	2
28	Anatomy of larynx	2
29	Root of neck	2
30	Cranial nerves	2
<b>Total</b>		<b>60</b>

## *Department of Basic Science*

### **A- Basic information**

<b>1-Subject title</b>	<b>Biochemistry</b>	
<b>2-Number of credits</b>	Theory:4	Laboratory:2
<b>3-Number of contact hours</b>	Theory: 2h/wk	Laboratory:2h/wk
<b>4-Subject time</b>	Second Year	

Number	Title of the lectures	Hours
1	Enzymes: Definition ,Terminology , and Classification	2
2	Mechanism of enzyme action	2
3	Clinical significance of enzyme assays	2
4	Vitamins, definition, classification	2
5	Digestion and absorption of carbohydrates, lipids ,and proteins	2
6	Chemistry of carbohydrates	2
7	Metabolism of Carbohydrates: part 1	2
8	Metabolism of Carbohydrates :part 2	2
9	Carbohydrates metabolism regulation	2
10	Chemistry of Proteins and amino acids	2
11	Metabolism of Proteins and amino acids	2
12	Metabolism of Protein and amino acid regulation	2
13	Metabolism of Protein and amino acid inherited disorder	2
14	Exam	2
15	Lipid :definition, classification	2
16	Metabolism of Lipid: oxidation of Fatty Acids	2
17	Biosynthesis of Fatty Acids	2
18	Integration of metabolism of carbohydrates, lipid ,and Proteins	2
19	Metabolism of Purines and pyrimidines	2
20	Metabolism of Purines and pyrimidines disorder	2
21	Nucleic Acids Definition and Protein synthesis	2
22	Hormone definition, classification	2
23	Hormone disorder	2
24	Acid-base balance	2
25	Trace elements disorder	2
26	Salivary secretion(saliva), Pancreatic juice	2
27	Electrolytes	2
28	Liver Function Test	2
29	Kidney Function Test	2
30	Exam	2
<b>Total</b>		<b>60</b>

### *Laboratory sessions*

Lab number	Study unit title	Hours
1	Lab safety	2
2	Sample collection-1	2
3	Sample collection -2	2
4	Spectrophotometer	2
5	Standard curve	2
6	Blood glucose+ HbA1c	2
7	Total Protein	2
8	Albumin+ Globulin	2
9	Troponin	2

10	Liver function test (Bilirubin)	2
11	Alkaline Phosphatase	2
12	Transaminases (ALT&AST)	2
13	Lipid in blood (cholesterol & lipoprotein)	2
14	Triglyceride	2
15	Kidney function Test (urea)	2
16	Serum creatinine & creatinine clearness	2
17	General Urine Analysis-1	2
18	General Urine Analysis-2	2
19	Uric acid	2
20	Amylase in serum+ saliva	2
21	creatine phosphokinase	2
22	lactate Dehydrogenase	2
23	serum calcium	2
24	serum phosphorus	2
25	serum Na	2
26	serum K	2
27	serum Iron	2
28	Vitamin D	2
29	Vitamin C	2
30	Acid phosphatase.	2
Total		60

### *Department of Oral diagnosis*

1-Subject title	Oral histology and Embryology	
2-Number of credits	Theory:4	Laboratory:2
3-Number of contact hours	Theory:2 h/wk.	Laboratory:2h/wk
4-Subject time	Second year	

### *Theory sessions*

Week No.	Title of the lectures	Hours
1	Embryogenesis: first week, ovulation, fertilization and implantation	2
2	2nd week, Bilaminar germ layer	2
3	3rd week trilaminar germ layer: gastrulation and neurulation	2
4	(Development of head and neck(pharyngeal arch, pouch & cleft	2

5	Development of face and anomalies	2
6	Development of tongue and anomalies	2
7	Development of palate and anomalies	2
8	Slide preparation	2
9	Tooth development and developmental disturbances of teeth	2
10	Dentinogenesis and dentin structure	2
11	Amelogenesis, Enamel structures	2
12	Clinical consideration for dentin and enamel	2
13	Dental Pulp	2
14	Cementum and clinical consideration	2
15	Root formation& Cementogenesis	2
16	Periodontal ligaments	2
17	Principles fiber of pdl and gingival fibers	2
18	Alveolar bone	2
19	Bone formation and resorption	2
20	Proteins involve in mineralization of bone and dentin	2
21	Oral mucosa and their types	2
22	Gingiva and dentogingival junction	2
23	Eruption of teeth	2
24	Shedding of teeth	2
25	Salivary gland	2
26	Salivary proteins	2
27	TMJ	2
28	Maxillary sinus	2
29	Histochemistry	2
30	Age changes of soft and hard tissues	2
<b>Total</b>		<b>60</b>

### *Laboratory sessions*

Lab number	Study unit title	subject	Hours
1	first week of development ovulation and implantation	data show projector	3
2	Second week of development: bilaminar germ layer	data show projector	3
3	Third week of development trilaminar germ layer	Video presentation	3
4	Development of prechodral plate and primitive streak	data show projector	3
5	Pharyngeal arch, pouch and cleft	data show projector	3



6	development of the face and tongue	Video presentation	3
7	Development of the Palate and its anomalies	data show projector	3
8	Slide preparation, Tooth development and growth	Data show figures	3
9	Tooth development and growth	Data show figures	3
10	Dentinogenesis, Dentin structures	Data show figures	3
11	Amelogenesis, Enamel structures	Data show figures	3
12	Clinical consideration in enamel and dentin, Dentin hypersensitivity	Data show figures	3
13	Pulp development, pulp structures	Video presentation	3
14	Root formation, Cementogenesis	Video presentation	3
15	Cementum structures, Clinical consideration of cementum	Data show projection	3
16	Periodontium, Periodontal ligaments	Data show projection	3
17	Maxilla, mandible, alveolar bone	Data show projection	3
18	Oral mucosa membrane, Types of mucosa	Data show projection	3
19	Eruption of teeth, Mechanism of eruption	Data show projection	3
20	Shedding of the deciduous teeth, Dentino-gingival junction	Data show projection	3
21	Temporo-mandibular joints, Maxillary sinus	Data show projection	3
22	Histochemistry, Types of histochemical stain	Data show projection	3
23	Facial anomalies, Types of Twins	Data show figures	3
24	Development of Digestive system, Congenital anomalies of Digestive system	Data show figures	3
25	Development of nervous system, Congenital anomalies of nervous system	Data show figures	3
26	Development of muscular system, Congenital anomalies of muscular system	Data show figures	3
27	Development of skeletal system, Congenital anomalies of skeletal system	Data show figures	3
28	Characterization of proteins involved in Dentin and Bone Mineralization	Data show projection	3

29	Bone formation and resorption	Data show projection	3
30	Salivary proteins and their relevance to mineral homeostasis	Data show projection	3
<b>Total</b>			<b>90</b>

*Department of Basic Science*

**A- Basic information**

<b>1-Subject title</b>	<b>General Histology</b>	
<b>2-Number of credits</b>	Theory:4	Laboratory:2
<b>3-Number of contact hours</b>	Theory: 2h/wk.	Laboratory:2h/wk.
<b>4-Subject time</b>	Second Year	

No.	Title of the lectures	Hours
1	Cells, Basic Tissue	2
2	Epithelial Tissue	2
3	Connective Tissue	2
4	Respiratory System: conducting portion	2
5	Respiratory System: respiratory portion	2
6	Urinary System: kidney nephrons, collecting tubules and ducts	2
7	Urinary System: ureter, urinary bladder, and male and female urethra	2
8	Integumentary System: Skin: epidermis, dermis	2
9	Integumentary System: skin glands, hair, and nails	2
10	Hemopoiesis: bone marrow	2
11	Hemopoiesis: blood cells	2
12	Circulatory System	2
13	Circulatory System	2
14	Lymphoid System	2
15	Lymphoid System	2
16	Nervous System	2
17	Nervous System	2
18	Endocrine System	2
19	Endocrine System	2
20	Endocrine System	2
21	Digestive System	2
22	Digestive System	2
23	Digestive System	2
24	Digestive System	2
25	Male Reproductive System	2
26	Male Reproductive System	2

27	Female Reproductive System	2
28	Female Reproductive System	2
29	Special Sense Organs: eye	2
30	Special Sense Organs: ear	2
<b>Total</b>		<b>60</b>

### *Laboratory sessions*

Lab number	Study unit title	Hours
1	Slides of basic types of tissue	2
2	Slides of types of epithelial tissue	2
3	Slides of types of blood cells in blood smears	2
4	Slides of larynx, trachea	2
5	Slides of lungs including bronchi and bronchioles	2
6	Slides of kidney	2
7	Slides of ureter, urinary bladder	2
8	Slides of layers of epidermis, dermis	2
9	Slides of skin glands, hair	2
10	Slides of bone marrow types	2
11	Slides of blood cells development	2
12	Slides of large artery (aorta), small artery	2
13	Slides of medium sized vein	2
14	Slides of lymph nodes, palatine tonsils	2
15	Slides of thymus, spleen	2
16	Slides of nerve fibers, spinal cord	2
17	Slides of ganglia, cerebrum, and cerebellum	2
18	Slides of pituitary gland, thyroid gland	2
19	Slides of parathyroid glands, adrenal glands	2
20	Slides of pineal gland, endocrine pancreas	2
21	Slides of lip, tongue, and salivary glands	2
22	Slides of esophagus, stomach	2
23	Slides of duodenum, ileum, and colon	2
24	Slides of appendix, liver, pancreas, and gallbladder	2
25	Slides of testes, duct of the epididymis	2
26	Slides of prostate gland, seminal vesicles, and penis	2
27	Slides of ovaries, corpus luteum, and uterus	2
28	Slides of placenta, vagina, and mammary glands	2
29	Slides of vertical section of cornea, retina	2
30	Slides of vertical section of internal ear	2
<b>Total</b>		<b>60</b>

*Department of prosthodontics*

**A- Basic information**

<b>1-Subject title</b>	<b>Dental Material</b>	
<b>2-Number of credits</b>	Theory:2	Laboratory:2
<b>3-Number of contact hours</b>	Theory:1h/wk.	Laboratory 2h/wk.
<b>4-Subject time</b>	Second Year	

No.	Title Of The Lectures		Hours
1	<b>Introduction and physical properties of dental material</b>	<ul style="list-style-type: none"> <li>• Introduction to dental materials</li> <li>• Physical, chemical and biological properties of dental materials</li> </ul>	1
2	<b>Mechanical properties</b>	<ul style="list-style-type: none"> <li>• Mechanical properties</li> </ul>	1
3	<b>Gypsum materials</b>	<ul style="list-style-type: none"> <li>• Definition, requirement, types,</li> <li>• gypsum bonded investment</li> <li>• phosphate bonded investment</li> <li>• ethyl silicate bonded</li> </ul>	1
4	<b>Gypsum materials</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	1
5	<b>Impression materials</b>	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Ideal properties of impression materials</li> <li>• Classification of impression materials               <ul style="list-style-type: none"> <li>✓ Non elastic impression materials                   <ul style="list-style-type: none"> <li>➤ Impression plaster</li> <li>➤ Impression compound</li> <li>➤ Zinc oxide - eugenol</li> </ul> </li> <li>✓ Elastomeric impression material</li> </ul> </li> </ul>	1
6	<b>Impression materials</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	1
7	<b>Impression materials</b>		1
8	<b>Impression materials</b>		1
9	<b>Impression materials</b>	<ul style="list-style-type: none"> <li>•</li> </ul>	1

10	Waxes	<ul style="list-style-type: none"> <li>• Definition,</li> <li>• Requirements,</li> <li>• classification of wax according to origin &amp; melting point,</li> <li>• classification of wax according to uses, properties of dental waxes.</li> </ul>	1
11	Waxes	•	1
12	Polymers	<ul style="list-style-type: none"> <li>• Polymers and polymerization</li> <li>• Definition of polymer, co-polymer, cross-link polymer and Degree of polymerization</li> <li>• Factors which control structure and properties of polymer</li> <li>• Types of polymerization</li> <li>• Heat activated acrylic <ul style="list-style-type: none"> <li>✓ Composition</li> <li>✓ Properties</li> </ul> </li> <li>• Chemically activated resin <ul style="list-style-type: none"> <li>✓ Composition</li> <li>✓ Properties</li> </ul> </li> <li>• Light activated resin <ul style="list-style-type: none"> <li>✓ Composition</li> <li>✓ Properties</li> </ul> </li> <li>• Chemically activated resin compared to heat activated resins</li> <li>• Polymers used in dentistry</li> <li>• Processing errors</li> </ul>	1
13	Polymers		1
14	Investment materials	<ul style="list-style-type: none"> <li>• factors affecting setting time, setting expansion, strength, storage and manipulation of gypsum products, and hygroscopic expansion</li> </ul>	1
15	Cement materials	<ul style="list-style-type: none"> <li>• Classification of dental cements</li> <li>• Definition</li> <li>• Requirements</li> </ul>	1
16	Temporary filling	<ul style="list-style-type: none"> <li>• Definition</li> </ul>	1

		<ul style="list-style-type: none"> <li>• indication</li> <li>• Types</li> <li>• Requirements</li> </ul>	
17	Metal and metal alloy	<ul style="list-style-type: none"> <li>• Metallic denture base materials <ul style="list-style-type: none"> <li>✓ Types of metal and metal alloys</li> <li>✓ Definition of alloy</li> <li>✓ Requirement of casting alloy</li> <li>✓ Application of dental alloy</li> <li>✓ classification of metal</li> <li>✓ classification of dental alloy</li> <li>✓ gold foil (advantage, disadvantages)</li> <li>✓ gold alloys <ul style="list-style-type: none"> <li>➤ Composition</li> <li>➤ Properties</li> </ul> </li> </ul> </li> </ul>	1
18	Metal and metal alloy		1
19	Metal and metal alloy	<ul style="list-style-type: none"> <li>• Alternative of gold alloys <ul style="list-style-type: none"> <li>✓ Metal ceramic alloys <ul style="list-style-type: none"> <li>➤ Requirement</li> <li>➤ Types</li> </ul> </li> <li>✓ Removable denture base alloys <ul style="list-style-type: none"> <li>➤ Requirements</li> <li>➤ Types</li> </ul> </li> <li>✓ Co-Cr alloy <ul style="list-style-type: none"> <li>➤ Application</li> <li>➤ Composition</li> <li>➤ properties,</li> <li>➤ Advantages</li> <li>➤ Disadvantages</li> </ul> </li> </ul> </li> </ul>	1
20	Metal and metal alloy	<ul style="list-style-type: none"> <li>✓ Titanium and Titanium alloys <ul style="list-style-type: none"> <li>➤ Applications</li> <li>➤ Properties</li> </ul> </li> <li>✓ Ni/Cr alloys <ul style="list-style-type: none"> <li>➤ Composition</li> <li>➤ Indications</li> </ul> </li> <li>✓ Wrought stainless steel alloy</li> </ul>	1
21	Filling materials	<ul style="list-style-type: none"> <li>• Direct filling material <ul style="list-style-type: none"> <li>✓ Definition</li> <li>✓ Factors causing loss</li> </ul> </li> </ul>	1

		<p>of tooth substance</p> <ul style="list-style-type: none"> <li>✓ Requirement of an ideal filling material.</li> <li>✓ Classification of filling material <ul style="list-style-type: none"> <li>➤ Anterior filling materials</li> <li>✚ Disadvantages</li> <li>✚ Composite filling materials composition and structure</li> <li>✚ Types of composite <ul style="list-style-type: none"> <li>➤ Posterior filling materials <ul style="list-style-type: none"> <li>✚ Dental amalgam <ul style="list-style-type: none"> <li>▪ Classification of amalgam alloys</li> <li>▪ Properties of set amalgam</li> <li>▪ Shaping and finishing</li> <li>▪ Mercury toxicity</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	
22	Filling materials		1
23	Filling materials		1
24	Filling materials		1
25	Preventive materials	<ul style="list-style-type: none"> <li>• Preventive materials</li> </ul>	1
26	Root canal filling materials (obturating materials)	<ul style="list-style-type: none"> <li>• Root canal filling materials (obturating materials)</li> </ul>	1
27	Finishing and polishing material	<ul style="list-style-type: none"> <li>• Finishing and polishing material</li> </ul>	1
28	Relining material	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Types</li> <li>• Requirements</li> <li>• Indication</li> <li>• Soft liners <ul style="list-style-type: none"> <li>✓ Types</li> <li>✓ Requirements</li> <li>✓ Indication</li> <li>✓ Properties</li> </ul> </li> </ul>	1
29	Implant materials	<ul style="list-style-type: none"> <li>• Implant materials</li> </ul>	1
30	Maxillofacial materials	<ul style="list-style-type: none"> <li>• Maxillofacial materials</li> </ul>	1
Total			30

## *Laboratory sessions*

No.	Title of lab.	Hours
1-	Introduction and physical properties of dental material	2
2-	Mechanical properties (stress strain curve)	2
3-	Showing different types of gypsum materials (plaster and stone)	2
4-	Steps of mixing plaster and demonstrate the steps of setting	2
5-	Impression plaster, demonstrate the manipulation of impression compound	2
6-	Zinc oxide impression material and agar impression demonstrate the mixing of zinc oxide impression	2
7-	Alginate impression (elastic impression) showing the trays used and the mixing of alginate and water according to manufacturer instructions	2
8-	Polysulphide, condensation and addition silicon\mixing of heavy body and light body	2
9-	Polyether, hybrid impression, digital impression	2
10-	Showing different types of wax (denture base plate, denture casting wax and others	2
11-	Demonstrate how to use wax material and its manipulation	2
12-	Introduction to polymers	2
13-	Different types of denture base materials( heat, cold and light activated polymers) demonstrate the mixing of polymer and monomer	2
14-	Thermoplastic polymers (flexible denture base material)	2
15-	Investment materials (showing the method of the investment)	2
16-	Introduction to cement materials	2
17-	Showing different types of cement materials and the method of mixing of cement	2
18-	Temporary filling (use and manipulation)	2
19-	Introduction to metal and metal alloy	2
20-	Showing the different types of metal and metal alloy	2
21-	Introduction to crown and bridge material	2
22-	Introduction to filling material	2
23-	Amalgam filling showing the amalgam capsules and mixing of amalgam	2
24-	Composite filing (chemical and light activated)	2
25-	Micro filled, hybrid, and nano-composite	2
26-	Demonstrate the setting of chemical and light activated composite filling material	2
27-	Showing different types of preventive materials (tooth pastes, gargles. Mouth wash fluoride varnishes and resin sealers)	2
28-	Demonstrate the obturating materials (Gutta percha, sealers) and endodontic instruments	2
29-	Finishing and polishing materials	2
30-	Relining materials	2
<b>Total</b>		<b>60</b>



*Department of Prosthodontics*

**A- Basic information**

<b>1-Subject title</b>	<b>Prosthodontics</b>	
<b>2-Number of credits</b>	Theory:2	Clinical:4
<b>3-Number of contact hours</b>	Theory:1h/wk.	Clinical 4h/wk.
<b>4-Subject time</b>	Second Year	

No.	Title of The Lectures		Hours
1	Introduction	<ul style="list-style-type: none"> <li>• Complete denture</li> <li>✓ Objective of complete denture</li> <li>✓ General consideration in complete denture construction</li> <li>✓ Complete denture component parts</li> </ul>	1
2	Anatomical landmarks	<ul style="list-style-type: none"> <li>• Anatomical landmarks</li> <li>✓ Maxillary arch anatomical landmarks               <ul style="list-style-type: none"> <li>➤ Supporting structures</li> <li>➤ Limiting structures</li> <li>➤ Relief areas</li> </ul> </li> </ul>	1
3	Anatomical landmarks	<ul style="list-style-type: none"> <li>• Anatomical landmarks</li> <li>✓ Mandibular arch anatomical landmarks               <ul style="list-style-type: none"> <li>➤ Supporting structures</li> <li>➤ Limiting structures</li> <li>➤ Relief areas</li> </ul> </li> </ul>	1
4	Complete Denture Impression	<ul style="list-style-type: none"> <li>• Impression tray - Definition</li> <li>• Parts of the impression tray</li> <li>• Types of tray</li> <li>• Stock tray – Definition</li> <li>• Types of stock trays</li> <li>• Factors effect in selection of stock tray</li> </ul>	1
5	Complete Denture Impression	<ul style="list-style-type: none"> <li>• Special tray</li> <li>✓ Advantages of special tray</li> <li>✓ Materials used for construction of special tray</li> <li>✓ Types of special tray</li> </ul>	1

		<ul style="list-style-type: none"> <li>✓ Techniques or methods for construction of special tray</li> <li>✓ Criteria for special tray construction</li> </ul>	
6	<b>Complete Denture Impression</b>	<ul style="list-style-type: none"> <li>• Dental impression - Definition</li> <li>• Complete denture impression - Definition</li> <li>• Objective of impression making</li> <li>• Primary impression - Definition</li> <li>• Materials used for making primary impression</li> <li>• Primary cast - Definition</li> <li>• Production of study cast</li> <li>• Secondary impression - Definition</li> <li>• Master cast- Definition</li> <li>• Materials used for final impression</li> <li>• Technique used for making final impression</li> <li>• Boxing an impression and making the casts</li> <li>• Advantages of boxing</li> <li>• Common fault in impression making</li> </ul>	1
7	<b>Record Base</b>	<ul style="list-style-type: none"> <li>• Record base - Definition</li> <li>• Requirements of record base</li> <li>• Types of materials used in construction of record base</li> </ul>	1
8	<b>Occlusion Rims</b>	<ul style="list-style-type: none"> <li>• Occlusion rims - Definition</li> <li>• Requirements of occlusion rim</li> <li>• Materials used in construction of occlusion rim</li> <li>• Measurements of maxillary occlusion</li> </ul>	1

		<ul style="list-style-type: none"> <li>rim</li> <li>• Measurements of mandibular occlusion rim</li> <li>• Uses of occlusion rim</li> <li>• Occlusal plane</li> <li>• Fox – bite</li> </ul>	
9	Anatomy And Physiology Of Temporomandibular Joint	<ul style="list-style-type: none"> <li>• Temporomandibular joint (TMJ) – Definition</li> <li>• Ligaments</li> <li>• Muscles</li> </ul>	1
10	Anatomy And Physiology Of Temporomandibular Joint	<ul style="list-style-type: none"> <li>• Mandibular axes and mandibular movements</li> <li>• Knowledge of mandibular movements</li> <li>• Mandibular movements</li> </ul>	1
11	Maxillomandibular relation	<ul style="list-style-type: none"> <li>• Types of jaw relation</li> <li>✓ Vertical jaw relation <ul style="list-style-type: none"> <li>➤ Rest position</li> <li>➤ Inter – occlusal distance</li> <li>➤ Importance of vertical dimension</li> <li>➤ Increased vertical dimension</li> <li>➤ Decreased vertical dimension</li> </ul> </li> </ul>	1
12	Methods Of Recording Vertical Relation	<ul style="list-style-type: none"> <li>• Method of recording rest vertical dimension</li> <li>• Method of recording occlusal vertical dimension</li> <li>• Pre – extraction records</li> <li>• Methods without pre – extraction record</li> </ul>	1
13	Horizontal Jaw Relation	<ul style="list-style-type: none"> <li>• Centric jaw relation</li> <li>✓ Importance of centric jaw relation</li> <li>✓ Methods of recording jaw relation</li> <li>✓ Factors that complicates centric jaw relation</li> <li>✓ Methods of recording</li> </ul>	1

		eccentric jaw relation	
14	<b>Dental Articulators</b> (Classification & Digital computerized articulator programming)	<ul style="list-style-type: none"> <li>• Dental articulator</li> <li>✓ Definition</li> <li>✓ Functions of articulator</li> <li>✓ Requirements of articulator</li> <li>✓ Types of articulator</li> </ul>	1
15	<b>Face – Bow</b>	<ul style="list-style-type: none"> <li>• Face- bow</li> <li>✓ Definition</li> <li>✓ Parts of face – bow</li> <li>✓ Types of face – bow</li> <li>✓ Important of the face – bow</li> </ul>	1
16	<b>Mounting</b>	<ul style="list-style-type: none"> <li>• Mounting</li> <li>✓ Definition</li> <li>✓ Preparation of articulator</li> <li>✓ Preparation of the casts and mounting the upper cast on CL II articulator</li> <li>✓ Mounting the lower cast</li> <li>✓ Errors occurred during mounting</li> </ul>	1
17	<b>Selection Of Artificial Teeth</b>	<ul style="list-style-type: none"> <li>• Selection of anterior teeth</li> <li>✓ The factors of shade selection</li> <li>✓ Size selection a. Length b. Width</li> <li>✓ Form selection</li> <li>✓ Materials of anterior teeth</li> <li>✓ Difference between acrylic and porcelain teeth</li> </ul>	1
18	<b>Selection Of Posterior Teeth</b>	<ul style="list-style-type: none"> <li>✓ Shade</li> <li>✓ Bucco-lingual width</li> <li>✓ Mesio-distal length</li> <li>✓ Occluso-gingival height</li> <li>✓ Occlusal form</li> <li>✓ Advantages of cusp form teeth</li> <li>✓ Advantages of non-cusp form teeth</li> </ul>	1
19	<b>Arrangement Of Artificial Teeth</b>	<ul style="list-style-type: none"> <li>• Guideline of artificial teeth arrangement</li> <li>✓ Arrangement of</li> </ul>	1

		<p>anterior teeth</p> <ul style="list-style-type: none"> <li>✓ Arrangement of upper anterior teeth</li> </ul>	
20	Arrangement Of Posterior Teeth	<ul style="list-style-type: none"> <li>• Curve of Spee</li> <li>• Compensatory curves</li> <li>• Arrangement of lower posterior teeth</li> <li>• Arrangement of upper posterior teeth</li> <li>• Common errors in arrangement of teeth</li> </ul>	1
21	Waxing And Carving	<ul style="list-style-type: none"> <li>• Waxing</li> <li>✓ Definition</li> <li>✓ Requirements of waxing the polish surfaces</li> <li>✓ The procedure of waxing</li> <li>✓ Establishing the posterior palatal seal area</li> <li>✓ Procedure for carving of posterior palatal seal area</li> <li>✓ Advantages of posterior palatal seal</li> <li>• Esthetic consideration in complete denture</li> </ul>	1
22	Complete Denture Occlusion	<ul style="list-style-type: none"> <li>• Occlusion</li> <li>✓ Occlusion of complete denture</li> <li>✓ Centric occlusion</li> <li>✓ Centric relation</li> </ul>	1
23	Complete Denture Occlusion	<ul style="list-style-type: none"> <li>✓ Eccentric occlusion</li> <li>✓ Concepts of complete denture occlusion</li> <li>✓ Try-in appointment</li> </ul>	1
24	Processing Of The Denture (Flasking)	<ul style="list-style-type: none"> <li>• Flasking of the denture</li> <li>✓ Flasking techniques</li> </ul>	1
25	Occlusal Correction	<ul style="list-style-type: none"> <li>• Causes of errors in occlusion</li> <li>• Selective grinding</li> <li>• Correction of occlusal errors</li> <li>• Disadvantages of intra – oral correction</li> <li>• Advantages of extra – oral correction</li> </ul>	1

		<ul style="list-style-type: none"> <li>• Rules for selective grinding</li> </ul>	
26	<b>Finishing And Polishing Of Complete Denture</b>	<ul style="list-style-type: none"> <li>• Procedure of finishing</li> <li>• Grinding and cutting instruments</li> <li>• Polishing of complete denture</li> <li>• Principles of polishing</li> <li>• Procedures of polishing</li> </ul>	1
27	<b>Repair Of Complete Denture</b>	<ul style="list-style-type: none"> <li>• Types of material used in repair</li> <li>• Causes of denture fracture</li> <li>• Types of repair</li> <li>• Laboratory procedure for repairing fractured denture base</li> </ul>	1
28	<b>Repair Of Complete Denture</b>	<ul style="list-style-type: none"> <li>• Replacement of broken or missing tooth</li> <li>• Replacement of missing or lost part</li> <li>• Requirement of repair</li> </ul>	1
29	<b>Relining And Rebasing</b>	<ul style="list-style-type: none"> <li>• Indication for relining or rebasing</li> <li>• Relining</li> <li>• Contraindications of relining and rebasing</li> <li>• The impression techniques for relining and rebasing</li> </ul>	1
30	<b>Relining And Rebasing</b>	<ul style="list-style-type: none"> <li>• Laboratory procedures for relining</li> <li>• Rebasing</li> <li>• The chair – side reline technique</li> </ul>	1
<b>Total</b>			<b>30</b>

### *Laboratory sessions*

Lab no.	Study unit title	Hours
1	Clinical and laboratory steps of complete denture construction	4
2	Taking primary impression on metal mold by impression compound and beading and boxing and pouring by dental plaster	4

3	Pouring on rubber mold (upper and lower primary cast)	4
4	Description of anatomical landmarks (maxillary and mandibular arch)	4
5	Demonstration of making upper and lower special tray by cold cure acrylic	4
6	Finishing and polishing of special tray and evaluation	4
7	Demonstration of taking final impression and construction of master cast	4
8	Evaluation of record base construction, finishing and polishing	4
9	Bite rims construction (upper and lower arch)	4
10	Demonstration of face bow and fox bite and description of types of jaw relation	4
11	Description about the methods of recording vertical jaw relation	4
12	Description about the methods of recording horizontal jaw relation	4
13	Demonstration about the types of articulators, parts, its uses and action	4
14	Mounting of upper and lower casts on articulators	4
15	Mounting of upper and lower casts on articulators (continue) and evaluation of the student work	4
16	Description the methods of selection of anterior and posterior teeth for complete denture	4
17	Demonstration about arrangement of upper and lower anterior teeth	4
18	Arrangement of upper and lower anterior teeth (continue) and evaluation of the student work	4
19	Demonstration about arrangement of upper and lower posterior teeth	4
20	Arrangement of upper and lower posterior teeth( continue).	4
21	Arrangement of posterior teeth and carving of posterior palatal seal and evaluation of the student work	4
22	Demonstration about carving and waxing of upper complete denture.	4
23	Carving and waxing of lower complete denture (continue) and evaluation of the student work	4
24	Flasking and investment of the denture	4
25	Wax elimination, packing and curing of heat cure acrylic	4
26	Deflasking ,finishing and polishing of upper complete denture	4
27	Deflasking ,finishing and polishing of lower complete denture (continue)	4
28	Demonstration of selective grinding	4
29	Repair of fracture denture	4
30	Repair of missing tooth	4
<b>Total</b>		<b>120</b>

**Department of Basic Science**

**A- Basic information**

<b>1-Subject title</b>	<b>General Physiology</b>	
<b>2-Number of credits</b>	Theory:4	Laboratory:2
<b>3-Number of contact hours</b>	Theory: 2h/wk.	Laboratory:2h/wk.
<b>4-Subject time</b>	Second Year	

No.	Title of lectures	Hours
1	<b>Introduction</b> (Function organization of the human body, Cell physiology, Cell membrane , Cell components , Cell Junction)	2
2	<b>Body fluid</b> (Type of body fluids, Intracellular and extracellular, Daily intake of water, Daily loss of body water, Constituents of extracellular and intracellular fluids, Major factors contribute to the movement of fluid, Specialized Fluids of the Body) <b>Edema</b> (Types of Edema, Causes of edema, Measurement of body fluid volume, Dehydration, Types of dehydration, Classification, Causes, Signs and Symptoms of Dehydrations)	2
3	<b>Homeostasis and Transport across cell membrane</b> (Diffusion (passive), Carrier-mediated transport (passive or active), Vesicular transport).	2
4	<b>ORAL CAVITY and Salivary Glands</b> (Functions of Mouth, Salivary Glands (Structure, Development, Major glands, Minor glands, Clinical correlations, Regulation of Salivary Secretion, Factors Influencing Salivary Flow and Composition) ( <b>Mastication</b> , Deglutition, Bolus Formation for Swallowing, Digestion), ( <b>speech</b> : Definition, Mechanism, Nervous Control, Applied Physiology)	2
5	<b>Salivary functions and Regulation of Salivary Secretion</b> (Composition of Saliva, Saliva Components, Properties of Saliva, Functions of Saliva, Effect of Drugs and Chemicals on Salivary Secretion, Maintenance of Tooth Integrity, The Diagnostic Applications of Saliva and forensic uses of saliva, Disadvantages/Limitations of Saliva)	2
6	<b>BLOOD</b> ( Composition of blood , Hematocrit, Plasma , Functions of blood ), <b>Red blood cells</b> (Genesis of R.B.C, polycythemia, Anemia, Destruction of R.B.C.s)	2
7	<b>White Blood Cells</b> (Types of W.B.C. , Genesis of the leukocytes, Life span of the W.B.C, Phagocytosis, Inflammation, Leukemia's, Leukopenia)	2
8	<b>Hemoglobin</b> (Formation of Hemoglobin , Iron Metabolism , Hb Compounds , Destruction of Hb , The common causes of jaundice)	2
9	<b>Blood groups</b> (Agglutination, Agglutinins, The Rh Group, Formation of Anti-Rh, agglutinins, Erythroblastosis Fetalis , Effect of the Mother's Antibodies on the Fetus, Transfusion Reactions resulting from mismatched Blood Types , Nature of Antibodies)	2
10	<b>Hemostasis and blood coagulation</b> (Vascular Spasm , Formation of a Platelet Plug , Mechanism of the Platelet Plug , Mechanism of Blood Coagulation , Prevention of Clotting in the Normal Vascular System , Prevention of Blood Coagulation outside the Body , Blood Disease)	2



11	<b>Cardiovascular system: Blood vessels</b> (Heart: Layers, Valves, Actions of heart, Blood Vessels, Division of circulation, Properties of Cardiac Muscle, Action Potential and Ionic Basis, Conductive system of Human Heart)	2
12	<b>Cardiovascular system: Blood pressure</b> (Cardiac Cycle, Heart Sounds, Cardiac Output, Heart Rate and Regulation, Arterial Blood Pressure and Regulation of ABP Venous Pressure and Capillary Pressure, Arterial Pulse and Venous Pulse, Regional Circulation)	2
13	<b>Cardiovascular system</b> (Electrocardiogram, Hemorrhage, Circulatory Shock and Heart Failure, Cardiovascular Adjustments during Exercise)	2
14	<b>Respiratory system</b> (Types of Respiration, Stages of Respiration, Respiratory tract, Non respiratory functions of respiratory tract, Mechanics of Pulmonary Ventilation, Types of Respiratory pressures, Factors causing and preventing collapsing tendency of lungs)	2
15	<b>Respiratory system: Lung volumes and capacities</b> (Compliance, Variation in Compliance, The resistance and the work of breathing, Dead space, Lung volume and Lung capacity, Ventilation, Respiratory Protective Reflexes , Pulmonary function tests, Regulation of Respiration, The relationship between oral health and respiratory disease)	2
16	<b>Half-year Break</b>	2
17	<b>SPECIAL SENSATION: Vision, Hearing, taste &amp; smell</b> (Structure of Eye, Visual Process and Field of Vision, Visual Pathway Pupillary Reflexes, Color Vision, and Errors of Refraction. Structure of Ear and Auditory Pathway ,Mechanism of Hearing and Auditory Defects, Sensation of Taste and Smell)	2
18	<b>Temperature of the Body</b> (Normal body Temperatures, Physiological Variations of body temperature, Heat Balance, Heat gain or heat production in the body, Heat loss from the body, Insulator System of the Body, Blood flow to the skin from the body core provides heat transfer, Regulation of body temperature, Mechanisms to decrease or increase body temperature, Sympathetic “Chemical” Excitation of heat production)	2
19	<b>Urinary system</b> (Parts of Renal system, The Kidney, Functions of kidneys, Components of kidney, Parenchyma of kidney, Nephron and Juxtaglomerular Apparatus, Renal corpuscle, Structure of renal corpuscle, Tubular portion of nephron, Collecting duct )	2
20	<b>Urinary system: Urine formation</b> (Mechanism of urine formation, Glomerular Filtration, Pressure determining filtration, Tubular Reabsorption, Tubular secretion)	2

	Micturition, Nerve supply to urinary bladder and sphincters, Renal Function Tests, Relation between renal disease & oral health)	
21	<b>Endocrine System</b> (Introduction, Endocrine glands, Hormones, Nature of Hormones, Classification of hormones, Hormone Secretors, Hormonal action Hormone receptors, Synthesis and storage of hormones, Mechanism of hormonal function, Measurement of Hormone Concentrations in the Blood)	2
22	<b>Major Endocrine Glands</b> (Oral manifestations of endocrine dysfunction, Control Systems Involving Hypothalamus and Pituitary glands, The pituitary gland, Thyroid gland, Pancreas gland, Adrenal glands)	2
23	<b>Digestive system</b> (The Functions of the digestive, Structural layers of digestive, Stomach, Secretions of the Stomach , Regulation of Stomach Secretion , Mixing of Stomach Contents, Stomach Emptying	2
24	<b>Digestive system</b> (small intestine , Secretions of the Small Intestine, Movement in the Small Intestine, Liver, Functions of the Liver, Pancreatic Secretions, Regulation of Pancreatic Secretion, Large Intestine, Movement in the Large Intestine Digestion, Absorption, and Transport)	2
25	<b>Muscular system: Muscle structure</b> (Types, Structure, Microscopic Structure, Muscle Physiology, Properties, Contraction and contractile elements, Tone, Electrical and Molecular Changes during Muscular Contraction)	2
26	<b>Muscular system: Tone , contraction</b> (Molecular Changes During Muscular Contraction, Neuromuscular Junction- Neuromuscular Transmission and Blockers, Nutrition and Metabolism (Energy Requirements))	2
27	<b>Nervous System: Nerve impulse, synapses</b> (Nervous System Division, Cranial nerves , Neuron and Neuroglia, Receptors, Nerve impulse, Synapse and Neurotransmitters)	2
28	<b>Nervous System</b> (Reflex Activity, Somatosensory System and Somatomotor System, Physiology of Pain)	2
29	<b>Reproductive system: Aging &amp; reproductive system</b> (Male Reproductive System Female Reproductive System, Meiosis, Aging and Reproductive system.	2
30	<b>Aviation and Deep physiology</b> (Body Response in high altitudes, physiological Changes in the Sea deep). <b>Nutrition and metabolism</b> (daily energy requirement, obesity and fitness)	2
<b>Total</b>		<b>60</b>

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### *Laboratory sessions*

Lab number	Study unit title	Hours
1	Microscope	2
2	Collection of Blood Samples	2
3	Blood Smears	2
4	Functions of Saliva & Taste Sensation	2
5	Stimulation and collection of salivary secretion	2
6	Separation of blood samples	2
7	Differential WBCs	2
8	Total Count of WBCs	2
9	Total Count of RBCs	2
10	Blood groups	2
11	Estimation of Hemoglobin	2
12	Bleeding and clotting time	2
13	Self-Monitoring of blood glucose test	2
14	Measurement of blood pressure & pulse rate	2
15	Effect of exercise on blood pressure and respiratory rate	2
16	Mid Exam	2
17	Physiology of vision test	2
18	Physiology of hearing test	2
19	Physiology of Smell sensation	2
20	Measurement of body temperature	2
21	Thyroid function (Body mass index)	2
22	Thyroid function (Body mass index)	2
23	Resuscitation & Artificial respiration	2
24	Resuscitation & Artificial respiration	2
25	Physiology of Skeletal muscles	2
26	Physiology of Skeletal muscles	2
27	Physiology of Skeletal muscles	2
28	Examination of reflexes (Motor Function)	2
29	Seminars and examinations	2
30	Seminars and examinations	2
<b>Total</b>		<b>60</b>

**Summary: Second Year .**

**Total Theories - Hours/ Week: 11.5**

**Total Theories - Hours/ year:**

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**11.5x30= 345**Total Practical  
**Hours/ Week: 17**  
**Total Practical Hours/ year: 17x30= 510**  
**Total Hours / Year: 855**  
**Total credits: 38**

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