



# Course Specifications

<b>Course Title:</b>	<b>Principles of Anatomy and Histology</b>
<b>Course Code:</b>	<b>373219-3</b>
<b>Program:</b>	<b>Bachelor's in Clinical Laboratory Sciences ( Level-7)</b>
<b>Department:</b>	<b>Clinical Laboratory Sciences</b>
<b>College:</b>	<b>Applied Medical Sciences</b>
<b>Institution:</b>	<b>Taif University</b>



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## A. Course Identification

<b>1. Credit hours:</b> 3 hours
<b>2. Course type</b>
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> Level 3/Second Year
<b>4. Pre-requisites for this course (if any):</b> Medical Biology 2 (370211-4)
<b>5. Co-requisites for this course (if any):</b> None

### 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	4 hours /week= 60 hours/semester	100%
2	Blended	None	0%
3	E-learning	None	0%
4	Correspondence	None	0%
5	Other	None	0%

### 7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
<b>Contact Hours</b>		
1	Lecture	30
2	Laboratory/Studio	30
3	Tutorial	None
4	Others (specify)	None
	<b>Total</b>	<b>60</b>
<b>Other Learning Hours*</b>		
1	Study	42
2	Assignments	4
3	Library	None
4	Projects/Research Essays/Theses	None
5	Others(specify)	5
	<b>Total</b>	<b>51</b>

\*The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

## B. Course Objectives and Learning Outcomes

### 1. Course Description

Anatomical and histological study of the human body structure and the relationship between its parts.

## 2. Course Main Objective

Recognize the normal anatomy and histology of various regions of the human body (different tissues, organs and systems), describe and identify the normal structure of cells, tissues, organs and systems and their relationship.

## 3. Course Learning Outcomes

CLOs		Aligned PLOs
1	<b>Knowledge:</b>	
1.1	Recognize normal tissue types of the human body.	K1
1.2	Interpret normal anatomical structures of all body system.	K1
2	<b>Skills:</b>	
2.1	Explain important anatomical and histological features in all body systems	S2
2.2	Explain gross morphological anatomy of body systems.	S2
3	<b>Competence:</b>	
3.1	Demonstrate effective communication with colleagues and management skills in completing tasks within deadlines.	C3

## C (a) Course Content(Theory)

No	List of Topics	Contact Hours
1	<b>Introduction</b> <ul style="list-style-type: none"><li>Define anatomy as a basic medical science.</li><li>Describe various common anatomical planes.</li><li>Describe various common positions.</li><li>Define histology and differentiate between different types of cells</li></ul>	2
2	<b>Skin &amp; Fasciae</b> <ul style="list-style-type: none"><li>Describe briefly the skin and its components.</li><li>Recognize different types of epithelial and connective tissues</li><li>Define different types of fasciae.</li></ul>	2
3	<b>Bones</b> <ul style="list-style-type: none"><li>Define bone as a living tissue.</li><li>Describe briefly different types of bones. Enumerate different parts of the body skeleton</li></ul>	2
4	<b>Joints</b> <ul style="list-style-type: none"><li>Classify joints according to structure &amp; function.</li><li>Identify characters of each type.</li><li>Describe general structure of a synovial joint.</li><li>List examples of common synovial joints.</li></ul>	2
5	<b>Digestive system</b> <ul style="list-style-type: none"><li>Identify component parts of the digestive system and its histological pattern.</li><li>Describe general features of mouth, teeth, tongue and salivary glands .</li></ul>	4

	<ul style="list-style-type: none"> <li>Describe briefly different parts of pharynx, stomach and intestine .</li> <li>Describe shape, position and main relations of the liver, gall bladder and pancreas.</li> </ul>	
6	<b>Respiratory system</b> <ul style="list-style-type: none"> <li>Identify component parts of the respiratory system and its lining epithelium.</li> <li>Describe the location of the nasal cavities.</li> <li>Describe briefly main components of the larynx.</li> <li>Name the air passage of the tracheobronchial tree in descending order of size.</li> <li>Describe the location and general features of the right and left lungs.</li> <li>Describe parts, boundaries and reflections of the pleura.</li> </ul>	2
7	<b>Cardiovascular system</b> <ul style="list-style-type: none"> <li>Identify chambers, valves and main vessels that attached to the heart.</li> <li>Describe the pericardium.</li> <li>Describe the blood supply of the heart.</li> <li>Identify the principle blood vessels of the body.</li> <li>Describe the histological features of the cardiac muscle.</li> <li>Describe the histological pattern of the blood vessels.</li> </ul>	4
8	<b>Urinary system</b> <ul style="list-style-type: none"> <li>Describe position &amp; gross anatomical features of the kidney.</li> <li>Identify the course of the ureter.</li> <li>Describe the position, shape and main relations of the urinary bladder.</li> <li>Identify the male urethra.</li> <li>Describe the different epithelial lining of the different parts of the urinary system.</li> </ul>	2
9	<b>Male genital system</b> <ul style="list-style-type: none"> <li>Identify component parts of the male genital system.</li> <li>Describe general structure of the testis.</li> <li>Describe briefly the prostate gland.</li> <li>Identify the course of the spermatic cord.</li> </ul>	2
10	<b>Female genital system</b> <ul style="list-style-type: none"> <li>Identify component parts of the female genital system and its histological pattern.</li> <li>Describe position, parts and relations of the uterus.</li> <li>Describe briefly the ovaries, uterine tubes and vagina.</li> </ul>	2
11	<b>Nervous system</b> <ul style="list-style-type: none"> <li>Classify the nervous system anatomically into central and peripheral.</li> <li>Classify the nervous system functionally into somatic and visceral (autonomic).</li> <li>Identify different parts of the brain.</li> <li>Demonstrate general structure of the cerebral hemisphere.</li> <li>Describe the general plan of the cerebellum and spinal cord.</li> <li>Identify different types of glial cells and structures of neurons</li> <li>Describe different layers of the meninges.</li> <li>List the cranial nerves and define their main functions.</li> <li>Define the spinal nerves and demonstrate their functional components.</li> <li>know the two divisions of the autonomic nervous system.</li> </ul>	4

	<ul style="list-style-type: none"> <li>Compare and contrast the sympathetic and parasympathetic systems according to composition and function.</li> </ul>	
12	<p><b>Endocrine system &amp; Special sense</b></p> <ul style="list-style-type: none"> <li>Describe the shape, position and main relations of pituitary, thyroid, parathyroid and suprarenal glands.</li> <li>Describe the shape, position and main relations of eye, ear, tongue and nose.</li> <li>Describe the different types of receptors of the special sense.</li> </ul>	2
<b>Total</b>		30

### (b) Course Content (Practical)

No	List of Topics	Contact Hours
1	<ul style="list-style-type: none"> <li>Define histology and differentiate between different types tissues</li> </ul> <p><i>Skin &amp; Fasciae</i></p> <ul style="list-style-type: none"> <li>Describe briefly the skin and its components.</li> <li>Recognize different types of epithelial and connective tissues</li> <li>Define different types of fasciae.</li> </ul>	4
2	<p><i>Bones &amp; Joints</i></p> <ul style="list-style-type: none"> <li>Define bone as a living tissue.</li> <li>Describe briefly different types of bones.</li> <li>Enumerate different parts of the body skeleton</li> <li>Identify list examples of common synovial joints.</li> </ul>	2
3	<p><i>Digestive system</i></p> <ul style="list-style-type: none"> <li>Identify component parts of the digestive system and its histological pattern.</li> <li>Describe general features of mouth, teeth, tongue and salivary glands.</li> <li>Describe briefly different parts of pharynx, stomach and intestine.</li> <li>Describe shape, position and main relations of the liver, gall bladder and pancreas.</li> </ul>	4
4	<p><i>Respiratory system</i></p> <ul style="list-style-type: none"> <li>Identify component parts of the respiratory system and its lining epithelium.</li> <li>Describe the location of the nasal cavities.</li> <li>Describe briefly main components of the larynx.</li> <li>Describe the location and general features of the right and left lungs.</li> <li>Describe parts, boundaries and reflections of the pleura.</li> </ul>	2
5	<p><i>Cardiovascular system</i></p> <ul style="list-style-type: none"> <li>Identify chambers, valves and main vessels that attached to the heart.</li> <li>Describe the blood supply of the heart.</li> <li>Identify the principle blood vessels of the body.</li> <li>Describe the histological features of the cardiac muscle</li> <li>Describe the histological pattern of the blood vessels</li> </ul>	4
6	<i>Urinary system</i>	

	<ul style="list-style-type: none"> <li>Describe position &amp; gross anatomical features of the kidney.</li> <li>Identify the course of the ureter.</li> <li>Describe the position, shape and main relations of the urinary bladder.</li> <li>Identify the male urethra.</li> <li>Describe the different epithelial lining of the different parts of the urinary system</li> </ul>	2
7	<p><b>Male genital system</b></p> <ul style="list-style-type: none"> <li>Identify component parts of the male genital system.</li> <li>Describe general structure of the testis.</li> <li>Describe briefly the prostate gland.</li> <li>Identify the course of the spermatic cord.</li> </ul> <p><b>Female genital system</b></p> <ul style="list-style-type: none"> <li>Identify component parts of the female genital system and its histological pattern.</li> <li>Describe position, parts and relations of the uterus.</li> <li>Describe briefly the ovaries, uterine tubes and vagina</li> </ul>	4
8	<p><b>Nervous system</b></p> <ul style="list-style-type: none"> <li>Classify the nervous system anatomically into central and peripheral.</li> <li>Classify the nervous system functionally into somatic and visceral (autonomic).</li> <li>Identify different parts of the brain.</li> <li>Demonstrate general structure of the cerebral hemisphere.</li> <li>Describe the general plan of the cerebellum and spinal cord.</li> <li>Identify different types of glial cells and structures of neurons</li> <li>List the cranial nerves and define their main functions</li> <li>Define the spinal nerves and demonstrate their functional components</li> <li>know the two divisions of the autonomic nervous system.</li> <li>Compare and contrast the sympathetic and parasympathetic systems according to composition and function.</li> </ul>	4
10	<p><b>(11)Endocrine system</b></p> <ul style="list-style-type: none"> <li>Describe the shape, position and main relations of pituitary, thyroid, parathyroid and suprarenal glands.</li> </ul> <p><b>(12)Special sense</b></p> <ul style="list-style-type: none"> <li>Describe the shape, position and main relations of eye, ear, tongue and nose.</li> <li>describe the different types of receptors of the special sense.</li> </ul>	4
<b>Total</b>		30

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	<b>Knowledge</b>		
1.1	Recognize normal tissue types of the human body.	- Lectures.	- Written Exams
1.2	Interpret normal anatomical structures of all body system.	- Lectures.	- Written Exams
2.0	<b>Skills</b>		
2.1	Explain important anatomical and histological features in all body systems	- Lectures. - Practical sessions. - Problem based learning	- Written Exams - OSPE
2.2	Explain gross morphological anatomy of body systems.	- Lectures. - Practical sessions. - Problem based learning	- Written Exams - OSPE
3.0	<b>Competence</b>		
3.1	Demonstrate effective communication with colleagues and management skills in completing tasks within deadlines.	- Lectures. - Practical sessions - Group discussions	- Written Exams - Presentations

### 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Mid-Term Exam	8 <sup>th</sup> Week	15%
2	Activity	Throughout the semester	5%
3	Practical Report	Throughout the semester	10%
4	Final Practical Exam	16 <sup>th</sup> Week	20%
5	Final Exam	17 <sup>th</sup> /18 <sup>th</sup> Week	50%
6	<b>Total</b>		<b>100%</b>

\*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :



- Course instructors are available for individual consultation in their free time. They are usually full-time permanent members present on-campus from 8:00 am to 2:30 pm on all working days. Appointments can be made in person with the instructor through email etc. Days and time availability of each instructor are posted on their doors. Course instructors provide a range of academic and course management advice including course planning and its progression.
- Each student at the department of Clinical Laboratory Sciences has an academic adviser who is available for individual consultation and guidance. Appointments can be made in person with the instructor through email etc. Days and time availability of each adviser are posted on their doors. The academic adviser can provide support with time management, exam preparation, clarification of subject requirements, feedback on performance and dealing with personal issues as well.

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	<ul style="list-style-type: none"> <li>• Snell's clinical anatomy (9th Edition, Richard S. Snell, from Lippincott Williams and Wilkins 2011)</li> <li>• Last's anatomy (12th Edition, Regional and Applied, Authors: Chummy Sinnatamby, Imprint: Churchill Livingstone Published Date: 2011)</li> <li>• Junqueira, L. Carneiro, J., Basic Histology; eleventh edition (2005).</li> </ul>
<b>Essential References Materials</b>	N/A
<b>Electronic Materials</b>	<p>Websites, Search engines (Saudi Digital Library, PubMed, Google Scholar)</p> <ul style="list-style-type: none"> <li>• <a href="https://www.pinterest.com/RYourPower/show-me-whatcha-workin-with-muscles-anatomy-etc/">https://www.pinterest.com/RYourPower/show-me-whatcha-workin-with-muscles-anatomy-etc/</a></li> <li>• <a href="http://www.innerbody.com">http://www.innerbody.com</a></li> <li>• <a href="http://www.anatomyzone.com/3d_atlas">http://www.anatomyzone.com/3d_atlas</a></li> </ul>
<b>Other Learning Materials</b>	<p>Journals, Scientific Magazines and Articles.</p> <p>None</p>

### 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms and Laboratories
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	Data show, Blackboard and A/V

Item	Resources
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	<ul style="list-style-type: none"> <li>• histology slides teaching sets for normal tissue types</li> <li>• cadaver, plastination models or plastic models show human body structure</li> </ul>

## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Student's feedback on effectiveness of teaching and quality of courses.	Students	Indirect: Questionnaire Survey at the end of each semester.
Alignment map of course ILOs with that of program ILOs.	Development and accreditation committee	Direct: Student's Performance
Availability of learning resources, facilities and equipments related to each course.	Students and faculty	Indirect: Questionnaire Survey at the end of each semester.
Evaluation of teaching	Peer evaluators	Direct: Peer evaluation
Standard of student achievement	Examination Committee	Direct: Students grades
Periodical review of course effectiveness and planning for its improvement.	Teaching staff/ Development and accreditation committee	Indirect: Review by Department Committee

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

Council / Committee	Department Meeting
Reference No.	Meeting No.10
Date	10-9-1440

