

I. Course Information

Course: CDM 1030 - Histology Semester and Year: Fall 2021 Course Start and End Dates: 07/26/2021 - 12/12/2021 Course Reference Number: 23934 Semester Credit Hours: 3.0 Building and Room: HPD-Assembly I Building - 2107AUDA

II. Instructor Information

Professor: Andrew Mariassy Email: marissyt@nova.edu Phone: 954-262-1311 Office Hours: By appointment

III. Class Schedule and Location

Day	Date	Time	Location	Building/Room
W	07/28/2021 -	8:10 AM -	Ft Lauderdale/Davie	HPD-Assembly I Building-
	12/08/2021	9:59 AM	Campus	2107AUDA

IV. Course Description

In this course, the microscopic anatomy of cells, tissues, and organs of the body is presented and correlated with their function. Basic physiological concepts and relevant areas in pathology are presented. This course includes an introduction to human embryology, with an emphasis on weeks 1 - 8. The laboratory sessions include the study of tissue specimens with light microscopes.

V. Course Objectives / Learning Outcomes

Course Learning Outcomes

At the completion of this course the student will be able to: 1. Describe, classify, and contrast the structure and function of, and identify, normal cells, tissues, and organs. 2. Describe the major events in the development of normal and abnormal tissues, organ systems, and structures of the oro-facial complex. <u>COLLEGE OF DENTAL MEDICINE COMPETENCY STATEMENTS Faculty Note: Use the most updated</u> version of the CDM Predoctoral Competency document to select the corresponding competencies for this course. Be sure to select the number of the competency statement and the verbatim competency statement as it appears on the competency document.For each competency indicate the type of assessment (formative or summative) that will be employed to measure the attainment of the competency Core Competencies: 19. Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.

[CODA Predoctoral Standard 2-15]

Formative: Interaction in the Lectures and Labs, student observation

Summative: Midterm and Final exams

- This refers to the same as the items in the CDM Competency Document; please see them listed below.

STATEMENTS FOR THE GENERAL DENTIST

FOUNDATION KNOWLEDGE

FK1-1: Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure and function to the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK4: Apply knowledge of the principles of genetic, congenital and developmental diseases and conditions and their clinical features to understand patient risk in the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

VI. Materials and Resources

Course Required Texts and Materials:

Required Electronic Media

Biolucida Viewer with NSU Virtual Histology Slide Collection. Instructions on how to access Biolucida and the NSU slide collection will be posted on Canvas.

Faculty Note: Please indicate the textbooks that are **required** for the class and if available, a hyperlink to the textbook. Also, indicate if there are articles or links to **required readings** that are required for the class *and* the site where the articles are available for the student (such as: Canvas, library, database).

Course Supplemental Materials:

Supplementary Histology texts/atlases available as e-books in the HPD library include: Young B, O'Dowd, G. Woodford, P. Wheater's Functional Histology. 6th ed. Elsevier, 2014 Michael H. Ross, Wojciech Pawlina. Histology: a text and atlas with correlated cell and molecular

biology, 7th edition, 2016, Wolters Kluwer

Anthony L. Mescher. Junqueira's basic histology:text and atlas.14th edition, 2016, Mcgraw-Hill Education.

A useful online supplement to the virtual laboratory: http://www.histologyguide.com/slidebox/slidebox.html

- Supplemental, Recommended, Optional, NOT required.

The access to all instructional resources included in this course, such as, lectures, handouts, manuals, PowerPoint presentations, videos, photographs, pictures, articles and web links is limited to students who are enrolled in the course and is not for public distribution. The use of these instructional resources is exclusively for non-commercial and non-profit educational use. Students are recommended to download the instructional resources provided in the course, UNLESS, the course director instructs NOT to download specific files. We recommend that all students download, save, and keep the instructional materials from all the courses. These instructional resources will be very helpful references as you progress from year to year in the program.

VII. Course Schedule and Topic Outline

Course Schedule:

HISTOLOGY SCHEDULE

Lectures Times: Wednesday morning from 8:10 to 10:00 AM Histology Lab times: Friday morning from 9:10 to 1:00 PM

Week	Session	Date	Торіс	Time
1	1.	08/04/2021	Introduction to Microscopy	8:10-9:00 AM
	2.	08/04/2021	Cytology	9:10 -10:00 AM
		08/06//2021	Lab 1 Mitosis and Staining	
2	3.	08/11/2021	Surface Epithelium	8:10-9:00 AM
	4.	08/11/2021	Glandular and introduction to	9:10 -10:00 AM
			Cancer	
		08/13/2021	Lab: Epithelium	
3	5.	08/18/2021	Blood	8:10-9:00 AM
	6.	08/18/2021	Blood formation	9:10 -10:00 AM
		08/20/2021	Lab: Blood and blood	
			formation	
4	7.	08/25/2021	Connective tissue	8:10-9:00 AM
	8.	08/25/2021	Cartilage	9:10 -10:00 AM
		08/27/2021	Lab: Connective tissue and	
			Cartilage	
5	9.	09/01/2021	Bone I	8:10-9:00 AM
	10.	09/01/2021	Bone II	9:10 -10:00 AM
		09/03/2021	Lab: Bone	
6	11.	09/08/2021	Muscle I	8:10-9:00 AM
	12.	09/08/2021	Muscle II	9:10 -10:00 AM
		09/10//2021	Lab: Muscle	
7	13.	09/15/2021	Nervous system I	8:10-9:00 AM
	14.	09/15/2021	Nervous system II	9:10 -10:00 AM
		09/17/2021	Nervous system	
8	15.	09/22/2021	Cardiovascular system I	8:10-9:00 AM
	16.	09/22/2021	Cardiovascular system II	9:10 -10:00 AM
		09/24/2021	Lab: Cardiovascular system	
9		09/29/2021	MIDTERM EXAM	7:45 to 9:45 AM
		10/01//2021	No Lab	
10	17.	10/06/2021	Lymphatic system	8:10-9:00 AM
	18.	10/06/2021	Lymphatic system	9:10 -10:00 AM
		10/08/2021	Lab: Lymphatic system	
11	19	10/13/2021	Integumentary system I	8:10-9:00 AM
	20	10/13/2021	Integumentary system II	9:10 -10:00 AM
		10/15/2021	Lab: Integumentary system	
12	21	10/20/2021	Respiratory system	8:10- 9:00 AM
	22.	10/20/2021	Respiratory system	9:10 -10:00 AM
		10/22/2021	Lab: Respiratory system	
13	23.	10/27/2021	Glands of the GI system	8:10-9:00 AM
	24.	10/27/2021	Glands of the GI system	9:10 -10:00 AM

		10/29/2021	Lab: Glands of the GI system	
14	25.	11/03/2021	GI system: Oral cavity to esophagus	8:10-9:00 AM
	26.	11/03/2021	GI System: Stomach to anal canal	9:10 -10:00 AM
		11/05/2021	Lab: GI system	11:10 AM- 1:00 PM
15	27.	11/10//2021	Urinary system I	8:10-9:00 AM
	28.	11/10/2021	Urinary system II	9:10 -10:00 AM
		11/12/2021	Lab: Urinary system	11:10 AM- 1:00 PM
16	29.	11/17/2021	Endocrine system I	8:10-9:00 AM
	30.	11/17/2021	Endocrine system II	9:10 -10:00 AM
		11/19/2021	Lab: Endocrine system	11:10 AM- 1:00 PM
17	31	11/24/2021	Review	8:10-9:00 AM
	32	11/24/2021	Review	9:10 -10:00 AM
18		12/03/2021	FINAL EXAMINATION	9-11 AM Tentative

Topic Outline:

LECTURE OBJECTIVES

Lecture 1&2- Introduction to Microscopy and Cytology

- 1. Understand the processes of preparing and viewing tissues by light and electron microscopy
- 2. List some of the tissue preparation artifacts and understand the difference between artifacts and pathology
- 3. Describe hematoxylin and eosin staining and the affinity of certain cell components to the stains.
- 4. Define basophilic and acidophilic and relate it to cell components and H&E staining.
- 5. Define euchromatin and heterochromatin and relate it to appearance and function of a cell.
- 6. Correlate the presence and amount of a cell component with the histological appearance and function of a cell.
- 7. Understand the structure and function of cell organelles and inclusions
- 8. Describe the phases of the cell cycle.
- 9. Describe the stages of mitosis and relate them to the cell cycle.
- 10. Define karyotyping and relate it to mitosis.
- 11. Describe the processes of exocytosis, endocytosis, autophagy, heterophagy and phagocytosis,
- 12. Compare atrophy, hypertrophy, hyperplasia, apoptosis and necrosis
- 13. Describe how abnormalities of the structure and function of cells can lead to disease

Lecture 3 & 4 Epithelium

- 1. Learn the general features and function of epithelium and how it is classified.
- 2. Compare and contrast different types of epithelia according to histological appearance, organization, specializations, function, dysfunction, and location.
- 3. Describe the structure and function of the basement membranes and basal lamina.
- 4. Describe the structure, function of the different types of microvilli and cilia.
- 5. Understand the structure and function of the terminal bar and types of junctions.
- 6. Describe some of the diseases involving damage to basement membranes, cilia, microvilli and different types of junctions.
- 7. List the different criteria used to classify exocrine glands.

- 8. Compare serous, mucous, and goblet cells in terms of structure, function and location.
- 9. Describe serous demilunes and gland ducts.
- 10. Describe metaplasia, dysplasia, and anaplasia.
- 11. Define benign and malignant adenoma, carcinoma, adenocarcinoma, sarcoma and teratoma.
- 12. Contrast the appearance of normal with diseased epithelia.
- 13. Describe the ability of epithelium (surface and glandular) to undergo mitosis and regenerate.

Lecture 5 & 6 Blood & Blood development

- 1. List the components of blood.
- 2. Compare red and white blood cells in terms of structure, function, and number.
- 3. Correlate the structure of platelets with their function.
- 4. List the sites of blood formation in the embryo (fetus) and adult.
- 5. Compare the structure and function of red and yellow bone marrow.
- 6. Compare erythropoiesis and granulopoiesis.
- 7. Describe the stages in development of red and white blood cells.
- 8. Identify the developmental trends in terms of cell size, shape, cytoplasmic and nuclear staining.
- 9. Identify the progenitors of platelets, macrophages, and plasma cells.
- 10. List the blood cells. Identify cells that can be present in normal circulating blood.
- 11. Describe some of the common diseases of the blood

Lecture 7&8 Connective tissue (CT) and Cartilage

- 1. Learn the classification, general features, and components of connective tissue
- 2. Compare and contrast the different types of connective tissue according to histological appearance, organization, function, and location.
- 3. List the types and locations of the different types of collagen fibers and elastic fibers.
- 4. Be able to list the permanent cells of the CT and the cells which migrate into the CT (ex. from blood).
- 5. Compare the histological appearance, structure, function, ability to replicate, location, motility, and derivation of each cell type of the connective tissue.
- 6. Describe mesenchyme and its derivatives._
- 7. Describe some of the major diseases involving problems with the synthesis of the different fibers and cells of connective tissue.
- 8. Learn the classification, general features, and function of cartilage.
- 9. Differentiate between hyaline, elastic, fibrocartilage, and articular cartilage, in terms of extracellular matrix, organization, function, and ability to regenerate.
- 10. Describe the appositional and interstitial growth of cartilage.
- 11. Compare normal articular cartilage to that in osteoarthritis and rheumatoid arthritis.
- 12. Understand the limitations of cartilage growth and repair due to its avascular nature.

Lecture 9 & 10 Bone

- 1. Learn the general features and components of bone.
- 2. List the contents of the extracellular matrix of bone.
- 3. Compare bone cells in terms of histological appearance, structure, function, derivation, ability to replicate.
- 4. Define osteon, Haversian system, Haversian canal, Volkmann's canal, interstitial lamellae, periosteum, and endosteum.
- 5. Compare spongy (trabecular) and compact (cortical, dense) bone.
- 6. Describe bone remodeling in the adult.
- 7. Describe appositional growth in bone.
- 8. Compare and contrast intramembranous (mesenchymal) and endochondral bone formation.
- 9. Describe how long bones grow in length and width
- 10. Relate neural crest and mesoderm to bone development.
- 11. Differentiate between the tumors of support tissues.
- 12. Compare connective tissue, cartilage, and bone in terms of embryology, cells, presence of blood vessels, fiber content, and ability to grow and regenerate.

13. Compare the major diseases affecting bone with that of normal bone.

Lecture 11 &12- Muscle

- 1. Learn the general features of muscle and the basis for its classifications.
- 2. Compare and contrast the three types of muscle in terms of histological appearance, structure, function and innervation.
- 3. Compare the development, growth, ability to regenerate and presence or absence of stem cells of the 3 types of muscle
- 4. Describe the basal lamina (external lamina) and also the CT wrappings of skeletal muscle.
- 5. List the components of a sarcomere and how it changes with contraction.
- 6. Describe and compare the cytoskeleton and membrane components of skeletal muscle and cardiac muscle
- 7. Discuss the relationship of motor end plates, lower motor neurons, denervation, and muscle fiber types to the structure and function of muscle.
- 8. Describe intercalated discs and list the individual components and function of the disc.
- 9. Describe the Purkinje fibers in term of location, appearance, and function.
- 10. Describe the structure and function of smooth muscle, including the ultrastructure and innervation.
- 11. Relate the ability of smooth muscle to replicate and produce a variety of fiber types to its role in various diseases.
- 12. Compare normal muscle to selected muscle pathologies.

Lecture 13 & 14- Nervous System

- 1. List the basic divisions of the nervous system.
- 2. List which cells and part of the nervous system develops from the neural tube or neural crest.
- 3. Learn the types of glial cells, their structure, function, embryology and location.
- 4. Identify the parts of neurons and compare their structure, organelles, and function.
- 5. Classify neurons according to their shape and processes and give examples.
- 6. Describe lower motor neurons, sensory neurons, autonomic neurons, sympathetic neurons, parasympathetic neurons, pre and postganglionic autonomic neurons, motor end plates and sensory receptors. Match each type of neuron to their target cell or tissue.
- 7. Describe the neuronal and glial components of peripheral nerves, dorsal roots, ventral roots, dorsal root ganglia (DRG), and autonomic ganglia (sympathetic, parasympathetic).
- 8. List the regions of the nervous system that contain cell bodies or axons.
- 9. Describe the different types of sensory receptors. List the flow of information from the receptors to the ganglion to the spinal cord.
- 10. Compare the structure of myelinated and unmyelinated axons in the peripheral and central nervous system.
- 11. List the structures surrounding a myelinated axon in a nerve, starting with the axolemma.
- 12. Describe the basal lamina and connective wrappings of a peripheral nerve.
- 13. Compare the sympathetic and parasympathetic divisions of the nervous system.
- 14. Define gray and white matter of the central nervous system.
- 15. Relate peripheral nerves, roots, and ganglia to the gray and white matter of the spinal cord. Identify the regions with cell bodies.
- 16. Identify the largest neurons in the cerebral cortex and cerebellar cortex and classify them according to their structure.
- 17. Compare neurons and glia as to their ability to replicate and relate it to ability to form neoplasms.
- 18. Describe some selected, common diseases and tumors of the nervous system.

Lecture 15 & 16- Cardiovascular system

- 1. Learn the general structure of vessels and how they are classified.
- 2. Compare and contrast the histological appearance, structure and function of blood vessels
- 3. Compare the structure of the different types of blood and lymphatic vessels.
- 4. Recognize the structure and function of the layers of the heart and valves of the heart
- 5. Describe Purkinje fibers
- 6. Compare the structure and function of continuous, fenestrated, and discontinuous (sinusoids) capillaries.

- 7. Compare the structure and function of glomera, metarterioles, precapillary sphincters, arteriovenous anastomoses, and portal systems.
- 8. Describe pericytes.

9. Discuss some of the histopathology of some of the common diseases of the cardiovascular system

General objectives for midterm material:

- 1. Compare all basic tissues in terms of overall organization, presence of blood vessels, extracellular matrix and function.
- 2. List the cells/tissues associated with a basal lamina. Which cells secrete a basal lamina?
- 3. List the different types of cell junctions, their structure, function, and location (types of cells and tissues).
- 4. Identify cells that can replicate (undergo mitosis) versus those that are terminally differentiated or postmitotic.
- 5. For each cell type, list the function (phagocytic, secretory, type of secretion), structure (number and types of organelles), appearance (shape, nuclear and cytoplasmic staining, granules, etc) and location.
- 6. List the cells that are motile.
- 7. List the cells derived from monocytes, mesenchyme, and stem cells.
- 8. Compare the cells, fibers, and ground substances in the studied tissues.
- 9. Compare the pathological cells and tissues presented in the course to that of the normal cells and tissues.
- 10. Relate the normal structure and function of the cells and tissues to the histopathology found in common diseases.

Lectures tested on the Final Examination:

Lecture 17 & 18 – Lymphatic system

- 1. List the cells of the lymphatic system, their function and derivation.
- 2. Define humoral and cell mediated immunity and relate it to specific immune cells.
- 3. Define antigen presenting cells and give examples and locations of these type of cells..
- 4. List the distinguishing histological features of each lymphatic organ.
- 5. Compare and contrast the histological appearance, organization, cells, stroma and function of diffuse lymphatic infiltrates, lymph nodules, Peyer's patches, palatine and pharyngeal tonsils, lymph nodes, spleen, and thymus.
- 6. Describe MALT, GALT, and BALT and list where they are located.
- 7. Identify where B or T lymphocytes are located in the tissues and organs of the lymphatic system.
- 8. List the path taken by lymph fluid as it flows through lymph nodes.
- 9. List the paths taken by blood as it flows through the spleen.
- 10. List the unique features of the thymus including its development.
- 11. Compare and contrast the structure and cellular content of lymphatic versus blood vessels.
- 12. Discuss the structure, function, and location of high endothelial venules

11. Compare the structure of normal lymphatic tissue and organs to those in selected diseases.

Lecture 19 & 20 – Integumentary system

- 1. Identify the layers of the skin and list their components.
- 2. Recognize the cells and layers of the epidermis and dermis and their contents.
- 3. Correlate the steps in the differentiation of keratinocytes within the specific layers of the epidermis.
- 4. Recognize the structure, function, location, and derivation of Langerhans cells and melanocytes.
- 5. Compare the histological appearance, structure, function, and location of Meissner's touch corpuscles, Pacinian corpuscles, sweat glands, sebaceous glands, hair follicles and nails.
- 6. Identify the location of mitotic cells in the epidermis, hair follicles and nails.
- 7. Describe the methods that epidermis utilizes to repair damage.
- 8. Compare thick and thin skin.
- 9. Relate the normal structure of skin to that present in selected diseases.

Lecture 21 & 22- Respiratory system

- 1. Compare the structure and function of the olfactory and respiratory mucosa.
- 2. List the components of the conductive and respiratory airways and the pathway of airfow through the

airways.

- 3. Compare and contrast the histological appearance, structure, cells and function of each portion of the respiratory system.
- 4. List the structure, function, and location of goblets cells, Clara cells, dust cells, Type I and Type II pneumocytes (alveolar cells).
- 5. List the structures (air/blood barrier) that oxygen must pass through to reach the blood.
- 6. List the structures (blood//air barrier) that carbon dioxide must pass through to reach the air.
- 7. Define mucociliary escalator, its function, and location.
- 8. Describe the embryology of the respiratory system and its relationship to developmental malformations.
- 10. Describe what occurs during metaplasia and dysplasia in the trachea and bronchus
- 11. Relate the normal structure of the respiratory airways to that which occurs in asthma, respiratory distress syndrome and cancer.

Lecture 23 & 24 Glands of the GI system:

- 1. Describe the histological appearance of each gland in the GI system.
- 2. Compare the structure and function of the different types of gland ducts, flow of secretion through
 - the ducts, and location.
- 1. Distinguish between the major salivary glands and pancreas based upon the type and number of

secretory cells and ducts.

- 1. Compare the organization and cells of the exocrine and endocrine portions of the pancreas.
- 2. Arrange the liver into lobules and list its components.
- 3. Describe the flow of blood to that of bile in the liver lobule.
- 4. Describe the ultrastructure of the hepatocyte, canaliculi, sinusoids, and perisinusoidal space.
- 5. List the structure and function and derivation of the Kupffer cells and hepatic stellate cells.
- 6. Relate the structure of the liver sinusoids to liver function.
- 7. Describe the histological appearance of the gall bladder and how it relates to its function.
- 8. Discuss some of the common diseases of the liver.
- 9. Describe the role of the hepatic stellate cell in cirrhosis.
- 10. Describe the development of the liver, its function in red blood cell formation, and biliary atresia.

Lecture 25 & 26 Gastrointestinal (GI) system

- 1. Compare and contrast the different mucosae of the oral cavity.
- 2. Identify the parts of the tongue including its layers, lingual papillae, and taste buds.
- 3. List the layers and basic features and function of the digestive tube.
- 4. Relate the type and organization of the epithelium of the digestive tube to its location and function.
- Compare and contrast the histology appearance, structure, function, cells, glands and layers of the upper and lower esophagus, three parts of the stomach, three parts of the small intestine, large intestine, appendix, and anal canal.
- 6. List the structures that increase the surface area for absorption in the small intestine.
- 7. List the regions of the digestive tube that contain mucous secreting cells, including goblet cells.
- 8. Identify the structure, secretions, and location of parietal, chief, and Paneth cells.
- 9. List the components of the lymphatic system present in the digestive tube.
- 10._Relate the normal structure of the GI systems to that which appears in select diseases

Lecture 27 & 28 Urinary system

- 1. List the parts of the kidney and the excretory passages.
- 2. Identify the basic structure of each part of the nephron and the uriniferous tubule.
- 3. Identify the components of the renal corpuscle.

- 4. List the structures (kidney filtration barrier) that molecules in the blood must pass through to reach the urinary space.
- 5. List the vascular channels for the flow of the filtrate through the nephron and the rest of the urinary system.
- 6. List the components of the juxtaglomerular apparatus and their function.
- 7. Map out the flow of blood through the kidney.
- 8. List the structures present in the kidney cortex (cortical labyrinth and medullar rays) and medulla.
- 9. Compare the structure of the individual components of the excretory passages.
- 10. Describe some of the common diseases of the kidney and excretory passages.

Lecture 29 & 30- Endocrine system

- 1. List the general characteristics of endocrine cells and organs.
- 2. Define endocrine and paracrine cell and their secretions
- 4. Understand the relationship between the endocrine and nervous system. Define neurosecretory cells and indicate where they are located. List the endocrine cells derived from the neural tube or crest
- 5. Compare the histological appearance, structure, cells, function, and development of the endocrine organs and cells.
- 7. Match endocrine cells and organs with their hormonal secretions.
- 8. Compare the structure and appearance of endocrine cells that secrete amino acid derivatives versus steroid secreting cells.
- 8. Compare the cells, structure, secretions, and blood supply of the anterior and posterior pituitary.
- 9. Describe the relationship of the hypothalamus to the pituitary gland.
- 10. Compare the organization, structure, cells, secretions, and embryology of the adrenal cortex and medulla.
- 11. List the steps in the synthesis, storage, and secretion of hormones by the thyroid follicular cells.
- 12. Describe some of the common diseases and malformations associated with the endocrine system.

Review

In addition to the specific lecture objectives listed in the above lectures students should be able to:

- 1. List the type of epithelium lining each structure and/or organ.
- 2. List the tissues and organs that contain goblet cells.
- 3. List the tissues and organs lined with an epithelium containing cilia or microvilli (stereocilia, striated border, brush border).
- 4. Identify the organs or regions that are associated with mucous, serous, or mixed glands.
- 5. Define stroma, parenchyma, and mucosa and relate it to each organ.
- 6. List the organs with a cortex and medulla.
- 7. List the organs/tissues with fenestrated, sinusoidal (discontinuous) or continuous capillaries.
- 8. List the organs supplied with a portal blood system.
- 9. List the cells derived from monocytes.
- 10. Compare the histology of normal tissues to that in common diseases.

"Important note – Please note that due to the current Coronavirus pandemic, course schedules and course activities may be modified now and in future. Faculty and students are responsible for keeping apprised of these changes and adjusting their schedules accordingly."

VIII. Instructional Methods

In this section of the syllabus you will find information about any course (instructional, assessment, assignments, benchmarks and/or clinical) modifications that were added to the course as a result of COVID-19 Zoom labs

IX. Assignments

Description of Assignments, Point Value and Rubrics Reading and self study assignments may be added during the course

X. Grading Criteria

Provide a List of all the graded work in the course (Assessments, Class Activities, Classwork and Assignments) with Point or Percentage Values, or required Completion item. Grading Scale:

Midterm examination: 50% of course grade Final examination: 50% of course grade

The lecture and laboratory material will be tested together in each exam. Questions on the exams will be in a multiple-choice format. Approximately half of each exam will include attached images from the laboratory. The final exam includes some laboratory material from the first half of the course. Course Final Grade Mode for the course (Pass/Fail, PR/NPR or Letter Grade). For a continuum course, please specify the grade mode for <u>each</u> semester. Grade Mode: Letter grade

Letter Grade	GPA	Equivalence
Α	4	93 to 100
A-	3.75	90 to < 93
B+	3.5	86 to < 90
В	3	83 to < 86
B-	2.75	80 to < 83
C+	2.5	76 to < 80
С	2	70 to < 76
F	0	<70

Course Grading Scale

XI. Course Policies

COURSE ATTENDANCE REQUIREMENTS, REMEDIATION POLICY, ALL CDM POLICIES

Attendance Policy : Please refer to appropriate pages of the NSU-CDM 2020-2021 Student Handbook.

Link to the handbook:

https://liverootnova.sharepoint.com/dentmed/Active%20Docs/Policies%20and%20Procedures/Pre%20a 2020%20CDM%20PreDoctoral%20Student%20Handbook.pdf?wa=wsignin1.0

Remediation Policy: Please refer to appropriate pages of the NSU-CDM 2020-2021 Student Handbook.

"Successful completion of each CDM course requires compliance with the CDM Code of Behavioral Conduct."

CDM College Attendance Policy Please note that, the Office of Admissions, Student Affairs and Services manages excused absences including sick days, mission trips, dental meetings, externships, interviews, family events, and other personal leave time, etc. and all student absences will continue to be tracked in axiUm. (Please refer to NSU Wide Religious Holidays Policy in the Student Handbook.) • Planned excused absences: please fill out the appropriate paperwork, with backup documentation (e.g. physician's note), and submit on the online portal for the Office of Student Services prior to the scheduled

absence, so that we can approve the leave time, and help you map out a plan to make up the work. It is the student's responsibility to inform the course director for any courses you will be missing, your team leader for any clinic sessions that will be missed and/or the Coordinator of Extramural Programs (Dr. Mairelina Godoy), etc. of your planned absence(s). • Unplanned excused absences: please email Dr. Galka at agalka@nova.edu with a cc to cdmservices@nova.edu to report that you will be out, the reason for your absence and to also let us know if you plan to return to school the following day. You should also email the course director for any courses you will be missing, Dr. Mairelina Godoy mg1189@nova.edu for any rotations you will be missing and/or your team leader for any clinic sessions scheduled for that day. You must continue to email us daily to keep us updated if you will be out additional days and you can submit your SREA form together with backup documentation when you know the date you will return to school. The student will be responsible for making up all missed rotations, all material presented in lectures, all laboratory projects, all written and practical examinations (including OSCEs) and must fulfill all didactic and clinical responsibilities as outlined in the individual course syllabi. Also, please review the attendance policy in the individual course syllabi. • Please do not schedule externships or interviews when you are scheduled for an examination or rotation. • Remember, it is your responsibility to reach out to our office for any unexcused absences to see if these fall under excused absences and/or to see how the unexcused absence will be managed. Also, please contact Dr. Mairelina Godoy directly to arrange makeup of any and all missed rotations, which will take place during optional clinicweeks. • Every student will be able to take 1 Personal Day/per Semester (3 Personal Days/Academic Year) with NO BACKUP DOCUMENTATION REQUIRED, provided the day(s) are not taken when you are scheduled for a rotation, written examination, practical/competency examination, OSCE or taken directly before/after a school holiday, etc. These absences will be managed through our office and designated as excused absences, provided our office is notified by email in advance or on the day of the absence. (Please indicate in the email if you will be using a personal day and designate D-1, D-2, D-3 or D-4 student.) For any additional absences to the 1 Personal Day/per semester, or in the event that you will be missing a written examination, a preclinical or clinical practical/competency examination, including an OSCE, or rotation, backup documentation WILL be required. Again, it is the student's responsibility to notify all course directors, team leaders, and/or the Coordinator of Extramural Programs, etc. affected by your absence(s). Please check your individual schedule before requesting a personal day, to be sure that you will not be missing a rotation or an exam. A personal day will be recorded as a full day. (Half days cannot be requested.) A personal day must be requested on or before the day in question and cannot be used retroactively. COVID-19 Protocol (subject to change)1. NO STUDENT IS TO COME TO SCHOOL SICK- if you do not feel right- please do NOT come to school. Email Dr. Galka-Assistant Dean for Admissions, Student Affairs and Services (agalka@nova.edu) 2. If a student has had direct/close contact with someone who has been infected with COVID-19 or is experiencing COVIDlike symptoms- immediately self- isolate/quarantine. Email Dr. Galka and Dr. Schweizer- Director Infection Prevention Programs (schweize@nova.edu). a. Direct Exposure/Asymptomatic: test on day 7if negative test result- can come back after 10 days : if NO test- quarantine 14 days b. Symptomatic (with or without Direct Exposure): test immediately and then again on day 7- if negative test result on day 7- can come back after 10 days : NO test- quarantine 14 days and must be symptom-free for 72 hours3. If a student tests positive for COVID-19: remain self-isolated. To return to school: student needs to have 2 consecutive negative test results in a row (at least 24 hours apart). 4. Students who are in quarantine, need to contact both Dr. Galka and Dr. Hernandez (marher@nova.edu) to determine if they can participate in online courses during this time

XII. University Policies

Academic Integrity: Cheating or inappropriate behavior during any written examination, quiz, any assignment, any project; plagiarism of any work(s), or other unethical behavior will not be tolerated; the student risks receiving a grade of zero (0) for said examination, quiz, assignment, project and may be referred to the Associate Dean for Academic Affairs and the Student Progress Committee. Please refer to appropriate pages of the NSU-CDM 2020-2021 Student Handbook. and the NSU Student Handbook located at

https://liverootnova.sharepoint.com/dentmed/Active%20Docs/Policies%20and%20Procedures/Pre%20and%20 2020%20CDM%20PreDoctoral%20Student%20Handbook.pdf?wa=wsignin1.0

Plagiarism Policy: All assignments, exams, works, patient care - written, laboratory, oral, clinical must be done as the independent work of each individual student. Plagiarism, copying or sharing the work of another or altering documentation to reflect something is your own work that is not; reflect false attendance, are considered serious offences that will not be tolerated. THESE ACTIONS WILL BE CONSIDERED IN VIOLATION OF THE UNIVERSITY AND THE CDM CODE OF BEHAVIORAL CONDUCT AND WILL BE REFERRED FOR APPROPRIATE ACTION. Students who need assistance in their learning goals should communicate with the appropriate NSU-CDM course director and/or faculty. Please refer to appropriate pages of the NSU and the CDM 2020-2021 Student Handbook. Following a link to the NSU Student Handbook

https://liverootnova.sharepoint.com/dentmed/Active%20Docs/Policies%20and%20Procedures/Pre%20and%20 2020%20CDM%20PreDoctoral%20Student%20Handbook.pdf?wa=wsignin1.0

University Policy

Class content throughout this course may be recorded in accordance with the NSU Class Recording Policy. If class content is recorded, these recordings will be made available to students registered for this course as a supplement to the classroom experience. Recordings will be made available to all students who were registered to attend the live offering of the class, regardless of a student's section or discipline, or whether the student is participating in the course online. If recordings are intended to be accessible to students or third parties who were not registered for the live offering of the class, students' personally identifiable information will be removed or redacted from the recording, unless (1) their written consent to such disclosure was previously provided, or (2) the disclosure is permissible in accordance with the Family Educational Rights and Privacy Act ("FERPA").

Students are prohibited from recording audio or video, or taking photographs in classrooms (including online classes) without prior permission from the instructor or pursuant to an approved disability accommodation, and from reproducing, sharing, or disseminating classroom recordings to individuals outside of this course. Students found engaging in such conduct will be in breach of the Student Code of Conduct and subject to disciplinary action.

Title IX/Sexual Misconduct: Sexual violence and sexual harassment are contrary to our core values and have no place at Nova Southeastern University. In accordance with Title IX and other laws, NSU prohibits discrimination, including sex-based discrimination and discrimination towards pregnant/parenting students. If you or someone you know experience(s) sexual violence and/or sexual harassment, there are resources and options available. To learn more or to report an incident, please visit the NSU Title IX website at <u>www.nova.edu.title-ix</u>. Please be aware that as an instructor, I am not a confidential resource, and I will need to report any incidents of sexual misconduct to the NSU Title IX Coordinator. You can also contact Laura Bennett, NSU's Title IX Coordinator directly at <u>laura.bennett@nova.edu</u> or 954-262-7858.