Louisiana State University
School of Dentistry
Program in Dentistry
Course Syllabus

DENT 1115 HUMAN PHYSIOLOGY FOR DENTAL STUDENTS

Course Director:	Raymond E. Shepherd, PhD, FACSM Professor of Physiology and Nursing Medical Education Building, Room 7C29 Ph: 504-568-6171 (6191)
Minor Unit:	Department of Physiology
Designation:	Basic Science
Type:	Required
Starting Year:	2014/2nd Spring semester
Ending Year:	2014/2nd Spring semester
Total Clock Hours:	88
Lecture:	70
Laboratory:	0
Examination:	10 hours examination 8 hours exam review

Course Instructors

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Betsy Giaimo, Administrative Course Coordinator	MEB 7C3	568-6178	mgiaim@lsuhsc.edu
Physiology Main Office	MEB 7C2	568-6171	

Faculty Coordinator for all Courses: Michael G. Levitzky, PhD, Professor of Physiology

Head of Department of Physiology: Patricia J. Molina, MD, PhD
Ashman Professor and Head of the Department of Physiology
Room 7205A, Medical Education Building
504-568-6172

1.0 Entry Level Skills or Prerequisites

Student must be accepted into the first year dental program. The student should have sufficient knowledge of human biochemistry and anatomy to understand explanations of function of within each system, and how to relate to homeostatic mechanisms.

2.0 Text and Materials

Medical Physiology: A Systems Approach by Raff, Hershel, Ph.D., and Levitzky, Michael, Ph.D.
ISBN: 0071621733/9780071621731; Edition 1 , 2011 , MCGRAW-HILL PUBLISHING CO
Also recommended is the CD-ROM "Animated Introduction to Neurophysiology" by S. Liles, LSU Health Sciences Center, 2001.

Other suggested reading:

Circulatory Physiology – The Essentials, J.J. Smith and J.P. Kampine, Williams and Wilkins, Baltimore
Pulmonary Physiology – Michael G. Levitzky, Lange Physiology Series, McGraw-Hill Book Co.
Endocrine Physiology – Patricia Molina,, Lange Physiology Series McGraw-Hill Book Co.
Gastrointestinal Physiology – Kim E. Barrett, Lange Physiology Series, McGraw-Hill Book Co.
Renal Physiology – Koeppen and Stanton, Mosby Elsevier.

Conference materials can be accessed at the website:
http://www.medschool.lsuhsc.edu/physiology/courses.asp and the new Moodle Web site

Many resource books are available online from Access Medicine through the LSUHSC library.
To Access: http://www.lsuhsc.edu/no/library/
Then click on Electronic Resouces / A/ AccessMedicine.
If you find that a different comprehensive physiology text is better suited for you, by all means use it in addition to the recommended texts. The Bookstore and the Library will have monographs available.

3.0 Introduction

3.1 Purpose

Physiology is the study of function and integration of cells, tissues and organ systems in the organism as a whole to maintain an optimal internal environment (homeostasis) to support cell life. We will examine individual organ systems and their coordinated activity within the total body system to maintain cellular integrity. One aim of this course is to indicate some important interactions between organ systems, especially those which may be of significance to the specialized health professional. We consider this of importance since the human patient is a highly integrated organism such that a disturbance of sufficient magnitude in a particular organ can be expected to produce alterations in all other organ systems. Our objective is to help you acquire an understanding of and an appreciation for organ function and control which will serve you in your clinical studies. We will try to demonstrate what a famous physiologist of the early 20th century once remarked, "The physiology of today is the medicine of tomorrow."

3.2. Rationale

The dentist who is primarily concerned with treating oral diseases must also bear in mind that disturbance of oral structure and function and/or stress associated with dental procedures may influence function in other body systems. Periodontal inflammation may interact with the cardiovascular system, diabetes and with pregnancy. Disturbance of function in other systems may markedly affect normal oral structure and function (loss of calcium from teeth during pregnancy or disease as a manifestation of altered endocrine regulation of calcium balance). Diabetes affects the process of periodontal infection. Drugs given by the dentist to control pain or hemostasis may influence cardiac function or immune function. Chronic pathophysiology of certain diseases and certain drugs may alter healing in the oral cavity. In this context it is important that you gain a firm understanding of physiology and pathophysiology as you learn to treat the whole individual. Dentists are an important part of the health care team and they are likely to see patients more regularly than a physician. A strong foundation in human physiology will enable you to better evaluate overall patient health and as a result become a better oral health care provider.

4.0 Competencies and Educational Objectives: (W=Written Examination; L=Lab Exercise; CL = Computer Lab; CA=Computer Animation)

4.1 Competency: No clinical competencies are completed in this course.

4.2 Educational Objectives

4.2.1 Understand structure and function of the normal cell and the basic types of tissue comprising the human body. (1.01 - W/L/CL)
4.2.2 Understand structure and function of cell membranes and the mechanism of neurosynaptic transmission. (1.02 - W/L)
4.2.3 Understand structure and function of sensorimotor pathways of the central nervous system. (1.08 - W/L/CA)
4.2.4 Understand basic function of the major organ systems of the body. (1.10 - W/L/CL/CA)
4.2.5 Understand mechanisms and systemic repercussions of fluid and hemodynamic derangements. (1.15 - W/L)
4.2.6 Understand basic principles of nutrition and its importance in oral health and disease. (2.04 - W)
4.2.7 Understand sources of vitamins and their role in dental disease. (2.07 - W)
4.2.8 Understand process of tooth development of both primary and permanent teeth. (2.08 - W)
4.2.9 Understand structure and function of the major muscles of mastication and facial expression. (2.11 - W/CA)
4.2.10 Understand structure and function of the temporomandibular joint, including major and accessory ligaments and muscle attachments. (2.12 - W/CA)
4.2.11 Understand structure and function of salivary glands, including the production and function of saliva. (2.14 - W/CA)
4.2.12 Understand mechanisms, clinical features, and dental implications of the most commonly encountered metabolic systemic diseases. (3.12 - W/L)
4.2.13 Recognize and understand the pathological physiology of systemic disease and its relationship with oral health and treatment. (18.02 - W/L)
4.2.14 Recognize oral health and the etiology of a patient's oral disease. (20.02 - W/L)
4.2.15 Use local anesthesia techniques for therapeutic and surgical procedures. (22.02 - L)
4.2.16 Recognize normal healthy mucosa. (26.01 - W)
4.2.17 Know how to organize and establish prevention strategies for managing medical emergencies within a dental office. (32.01 - W/L)
4.2.18 Know how to recognize and manage medical emergencies with administration of appropriate pharmacotherapeutic agents when indicated. (32.03 - W)

At the conclusion of this course, the student should be able to:

4.2.19 Describe nerve impulse generation and propagation.
4.2.20 List the sensory nervous systems and describe their modes of operation.
4.2.21 Categorize the motor nervous systems and describe their modes of operation.
4.2.22 Interpret central nervous system integration and control of peripheral activities, identifying the centers concerned with each activity.
4.2.23 Describe the mechanical actions of the heart.
4.2.24 Analyze the electrocardiogram and relate the electrical activity of the heart to the mechanical activity and the heart sounds.
4.2.25 Contrast the arterial and venous systems and categorize the bodily functions which affect and are affected by changes in the arterial and venous systems.
4.2.26 Describe renal functions in maintaining normal acid-base and water balance, and in excreting and/or reabsorbing plasma constituents as needed by the body.
4.2.27 Discuss respiratory functions, detailing the mechanics of respiration, control of respiratory movements, gas exchange and acid-base balance.
4.2.28 Define the functions of salivation and mastication in preparing food for digestion.
4.2.29 Analyze the role of secretion, digestion, and absorption in gastrointestinal function.
4.2.30 Assess the functions of the pancreas and liver in digesting food.
4.2.31 Categorize and describe the endocrine glands, analyzing the factors stimulating or inhibiting their secretions and the target organ effects of each hormone.
4.2.32 Analyze the role of hormones on hard tissue metabolism, delineating the specific functions of each hormone.
4.2.33 Understand bone physiology and calcification mechanisms.
4.2.34 Assess the factors affecting growth and development.
4.2.35 Understand aging and theoretical mechanisms of aging
4.2.36 Predict the effects of changes in a particular system on the whole body.

5.0. Educational Sessions (ALL LECTURES ARE IN Lecture Room A)

Doing well in Physiology will require concentrated effort on your part. **You Must Become Involved In Your Own Learning Process!** The following tips will enhance your chances for success in this course:

1. A cursory understanding of the material is only the foundation from which to begin studying. Use the questions in the textbook to help guide you to understanding the physiologic concept presented.
2. Facts are only memorized; *understanding* physiology requires integration and application of concepts.
3. Read carefully the assigned and relevant readings in the text **before** class sessions.
4. Take notes during lectures. After the lecture, integrate your notes with the textbook (note tables and figures) and other lecture material. Look at the material from different angles.
5. Form a study group and review this material by making one study partner "teach" the group.
6. Apply facts and concepts presented in the lecture to clinical scenarios presented in the textbook.

Lectures and Attendance: DENT 1115 Human Physiology, MWTh (10AM-NOON) in Auditorium A, Dental School. Lectures support and supplement the textbook. The textbook is designed to help you understand basic physiological concepts so you can apply them to dental care. We want you to achieve a working knowledge of physiology, in addition to a memory bank of physiological facts.

ATTENDANCE IS MANDATORY FOR ALL COURSES IN THE DENTAL PROGRAM AT LSU School of Dentistry. The LSU School of Dentistry attendance policies for didactic, pre-clinical and clinical courses are included in the LSUSD student handbook of policies and procedures. Attendance is monitored by daily quizzes given for each hour of class. Missed quizzes cannot be made-up.

Textbooks: Medical Physiology: A Systems Approach by Raff, Hershel, Ph.D., and Levitzky, Michael, Ph.D. **ISBN**: 0071621733/9780071621731 Edition #1, 2011. MCGRAW-HILL PUBLISHING CO. PowerPoint slides are **NOT** the textbook. You are responsible for the textbook material assigned.

Cell Phones: PLEASE! Leave your phone on (communication from me), but no Cell phone use during class**!** Silence your cell phones; put them on a book to cushion the vibration should you receive a call. If you have an emergency call, take it into the hallway. Please respect your colleagues by complying with this request. There will be times I will email you during class, particularly if we have a problem with moodle quizzes, and with information I deem important to send you with regards to the lecture material being presented. Those who have smart phones will be able to receive this without having to divert your computer to email.

Computers: Many of you will use computers to take notes, primarily because this is your preferred way of taking notes. Some of you will also use your computer to surf the internet, email and answer email during class. If you MUST surf the web, email, or study other material, ***PLEASE do it outside the classroom!*** It is distracting to us and to your fellow classmates who are trying to focus on class.

Tutoring: Should you need private tutoring, contact me for a reference, or contact the Physiology Graduate Students to see if they are available to tutor.

ACADEMIC HONESTY: Students must demonstrate the highest standards of character and integrity, which warrant the public confidence and trust bestowed on them as health professionals. Among the elements of professionalism, each student must adhere to the following specific standards:

1. Each student must exhibit professional courtesy towards faculty, supporting staff, fellow students and patients.
2. Each student must maintain up-to-date, accurate and complete records regarding treatment performed on patients and patient fees.
3. No student shall deviate from treatment plans unless the deviation is authorized and documented in writing by the appropriate faculty.
4. No student shall jeopardize the well being of a patient under any circumstances.

The Academic Performance Advancement Committee may deny a student permission to continue in the educational program should the student fail to demonstrate PROFESSIONAL CONDUCT.

Examinations: The department head (or course director with approval of the department head) has the option to re-examine any student at any time or to give the student any additional test or tests other than those regularly scheduled, with the objective of arriving at a more accurate evaluation of the student's academic performance. Examination materials will be retained by the course director or the department until after registration for the next academic year unless a grade appeal has been filed.

Exam Schedule: Four unit examinations AND a comprehensive final will be given during the course. Examination schedules are listed at the back of this syllabus. The exams will be given by computer at the scheduled time in Auditorium A. You will need your personal computer, with the respondus lockdown feature installed, and any necessary Ethernet wires for connection to the server. When you officially start the exam, you will have exactly 2 hr to complete the exam. If you need to have a question on the exam clarified, ask during the exam.

NO CELL PHONES (OR OTHER ELECTRONIC DEVICES) ARE PERMITTED DURING THE EXAM! Leave them in your book bag, turned OFF! If you expect emergency calls during the exam, silence your cell phone, leave it with the proctor so we can notify you should you receive a call.

Protocol for Attire and Personal Material: **Caps** and other headgear **MAY NOT** be worn during the exam. Place all books, backpacks, purses, cell phones, ipods, in the front, back, or sides of Auditorium A. **ONLY** basic function calculators are permitted!! Your computer should have that basic calculator.

Exam Format: Examinations will be multiple-choice format. The questions will emphasize **understanding** of physiologic principles. Most questions will be developed from a clinical scenario asking you to use understanding of fundamental concepts studied in class to answer the question.

Arrival for Exam: Exams are limited to exactly 2 hours, and will start immediately when you log on to MOODLE. You will be assigned seating for the exam. Should you arrive late for the exam, your exam will end at the same time as that for the other students. Should you arrive one-half hour after the exam starts, you will have missed the exam, and will have to make arrangements to take a make-up exam.

Missing an Exam: Students must have a legitimate excuse for missing an examination. Please inform the Course Director **before** the exam of your inability to make the exam. If a student misses an examination, has a written legitimate medical excuse, or has informed the coordinator **before** the exam has been given, then the student will be offered a make-up exam. Students must submit appropriate documentation to the course director upon return to class. *Students with a valid excuse must take a "make-up" exam (**an oral exam or an essay exam**) within **one week** of returning to school. It is the student's responsibility to schedule this make-up exam!* Failure to take the exam or the make-up exam results in a "0" for that exam.

Exam Scores and Exam Reviews: Exams are scored immediately on MOODLE, but you will not be able to review the exam. Exams will be reviewed the next class session following the exam. Exam reviews are just that, a review, not a class session. **NOTHING IS PERMITTED ON YOUR DESKTOP DURING THE REVIEW – No book bags, books, pencils, paper, cell phones, recorders, computers.** These should be placed in the front, back, or sides of auditorium A. You are not permitted to copy, record, photograph or transmit anything during this review.

6.0 Evaluation

*No **requirement** for Professional Conduct is specified. As stated in the LSUHSC Catalog/Bulletin and included in the LSUSD Student Handbook of Policies and Procedures, students must demonstrate the highest standards of character and integrity, which warrant the public confidence and trust bestowed on them as health professionals. The specific standards of Professional Conduct are stipulated in the above mentioned documents. Should a Patient Care Coordinator, the Director of Student Affairs or any member of the faculty find a student in noncompliance with the specified Standards of Professional Conduct, he/she must complete a NONCOMPLIANCE REPORT FORM and forward the appropriate copies to the student and the Office of Academic Affairs. The report will be forwarded to the appropriate Academic Performance Advancement Committee (APAC).*

Students are expected to attend all scheduled course sessions and take all exams. Failure to take an exam will result in a 'zero' for that exam. Make-up exams will be either oral and/or essay type questions at the discretion of the instructor(s).

Exams are graded as percent scores. Exams will not be 'curved.' Exam questions are multiple choice in makeup. These are designed to be graded by computer.

Quizzes will be given during the class period covering daily reading assignments and other class material. Quizzes are given each hour of lecture. These will serve also to take attendance.

All quiz points constitute one exam throughout the semester. All quiz points are added, and the percent score is determined ([number correct]/[total]). If you score 270 of 300 total points, your percent score is 270/300 = 90%. Your points for Quizzes will be 90%.

Final grades are based on 90% (A), 80% (B), 70% (C), and ≤ 69% (F) of the TOTAL grade points score (600 total points possible) scored on the four unit exams, the **comprehensive** final, and quizzes. Scores are absolute. A final score of 539 is a "B," and a score of 540 is an "A."

Exam	Covered	Grade Pts
Exam I	L 01-22	100
Exam II	L 27-42	100
Exam III	L 47-62	100
Exam IV	L 67-84	100
Exam V	L 01-84	100
Quizzes	L 01-84	100
Total		600

Exam Times	Final	Percentage	Total Points
2 hrs	A	90 – 100	540 - 600
2 hrs	B	80 – 89	480 - 539
2 hrs	C	70 – 79	420 - 479
2 hrs	F	≤ 69	≤ 419

The faculty makes every effort to assure that individual questions are clearly written and has only one correct answer. Questions are analyzed by computer to determine ambiguity. The Course Director will confer with the faculty that prepared the exam and decide whether a given question is proper or should be dropped from the exam. If the decision is to drop a question, each student will receive credit for that question. The exception to this would be those students who answered the "keyed" correct answer to the question!!! Logistically they have already received credit for the question!! Following the return of exam grades, students will have one (l) week to discuss with the Course Director any grade inaccuracies. **After this time grades become final and indisputable. During the exam, no questions, except questions pertaining to misspelling, will be accepted by faculty members.**

7.0 Schedule (M through May 11; W through May 11; Th through April 20)

NO.	Day/Date	Time	Topic	Instructor
01	M Jan 05	10	Introduction to Dental Physiology (Ch 1)	Dr. Gilpin
02	M Jan 05	11	Principles of Physiologic Regulation (Ch 2)	Dr. Gilpin
03	W Jan 07	10	Membranes: Molecular Structure (Ch 3)	Dr. Primeaux
04	W Jan 07	11	Membranes: Diffusion and Transport (Ch 3)	Dr. Primeaux
05	T Jan 08	10	Membranes: Electrical Properties (Ch 4)	Dr. Primeaux
06	T Jan 08	11	Action Potential (Ch 6)	Dr. Primeaux
07	M Jan 12	10	Synaptic Transmission I (Ch 7)	Dr. Primeaux
08	M Jan 12	11	Synaptic Transmission II (Ch 7)	Dr. Primeaux
09	W Jan 14	10	Touch, Pressure, Pain, Temperature (Ch 13)	Dr. Happel
10	W Jan 14	11	Sensory Mechanisms of Teeth, TMJ, PDL	Dr. Happel
11	T Jan 15	10	Reflexes of the Body (Ch 14)	Dr. Happel
12	T Jan 15	11	Reflexes of the Mandible	Dr. Happel
			MONDAY, 19 January 2015 MARTIN LUTHER KING, Jr, DAY	
13	W Jan 21	10	Ascending Sensory and Cortical Pathways	Dr. Gilpin
14	W Jan 21	11	Descending Motor Pathways	Dr. Gilpin
15	T Jan 22	10	Muscle: Structure and Function (Ch 8, 9)	Dr. Molina
16	T Jan 22	11	Muscle: Skeletal Muscle Contraction (Ch 8.9)	Dr. Molina
17	M Jan 26	10	Muscle: Skeletal Muscle Contraction (Ch 8,9)	Dr. Molina
18	M Jan 26	11	Muscle: Card. & Sm. M. Contraction (Ch 10,11,23)	Dr. Molina
19	W Jan 28	10	Hematology – Blood Cells (Ch 22)	Dr. Potter
20	W Jan 28	11	Hematology – Blood Clotting	Dr. Potter
21	T Jan 29	10	**No Class**	
22	T Jan 29	11	**No Class**	
23	M Feb 02	10	**Exam 1 (L01-L18)**	**Faculty**
24	M Feb 02	11	**Exam 1 (L01-L18)**	**Faculty**
23	W Feb 04	10	Electrocardiography I	Dr. Cairo
24	W Feb 04	11	Electrocardiography I	Dr. Cairo
27	T Feb 05	10	ANS and ECG abnormalities (Ch 19)	Dr. Gardner
28	T Feb 05	11	The Circulation: An Overview (Ch 22)	Dr. Gardner
29	M Feb 09	10	The Heart as a Pump (Ch 24)	Dr. Gardner
30	M Feb 09	11	Cardiac Cycle (Ch 25)	Dr. Gardner
31	W Feb 11	10	Venous Return (Ch 28)	Dr. Souza-Smith
32	W Feb 11	11	Microcirculation (Ch 26, 27)	Dr. Souza-Smith
33	T Feb 12	10	Mean Arterial Blood Pressure (Ch 29, 30)	Dr. Gardner
34	T Feb 12	11	Special Circulation: Coronary, Cerebral, Exercise, Tooth	Dr. Gardner

MARDI GRAS **Holiday starts 5PM Friday Feb 13 – 8AM Monday Feb 23**

NO.	Day/Date	Time	Topic	Instructor
35	M Feb 23	10	Respiratory System: Function and Structure (Ch 31)	Dr. Pellett
36	M Feb 23	11	Mechanics of Breathing (Ch 32)	Dr. Pellett
37	W Feb 25	10	Diffusion and Ventilation Perfusion (Ch 33, 34)	Dr. Pellett
38	W Feb 25	11	Gas Transport and Exchange (Ch 36)	Dr. Pellett
39	T Feb 26	10	Control of Breathing (Ch 38)	Dr. Pellett
40	T Feb 26	11	Acid-Base Imbalances and body pH (Ch 37)	Dr. Pellett
41	M Mar 2	10	**Exam 1I (L23-L40)**	**Faculty**
42	M Mar 2	11	**Exam 1I (L23-L40)**	**Faculty**
43	W Mar 4	10	**Post Exam Conference 2**	**Dr.Shepherd**
44	W Mar 4	11	**Post Exam Conference 2**	**Dr.Shepherd**
45	T Mar 5	10	Fluid Balance and Renal Structures and Function (Ch 39)	Dr. Harrison-Bernard
46	T Mar 5	11	Renal Clearance and Glomerular Filtration (Ch 40)	Dr. Harrison-Bernard
47	M Mar 9	10	Regulation of Renal Blood Flow (Ch 40)	Dr. Harrison-Bernard
48	M Mar 9	11	Nephron Tubular Reabsorption (Ch 41-44)	Dr. Harrison-Bernard
49	W Mar 11	10	Renal Regulation of Body Fluid Balance (Ch 45)	Dr. Harrison-Bernard
50	W Mar 11	11	Renal Control of pH (Ch 46, 47)	Dr. Harrison-Bernard
51	T Mar 12	10	Overview of GI Physiology (Ch 49)	Dr. Siggins
52	T Mar 12	11	Hormonal and Gastric secretions (Ch 50)	Dr. Siggins
53	M Mar 16	10	Pancreatic and Salivary secretions (Ch 51-54)	Dr. Siggins
54	M Mar 16	11	Digestion/Absorption: Carbohydrates, Proteins (Ch 58)	Dr. Siggins
55	W Mar 18	10	Digestion and Absorption of Lipids (Ch 55-58)	Dr. Siggins
56	W Mar 18	11	The Large Intestine (Ch 54)	Dr. Siggins
	T Mar 19	**FACULTY DEVELOPMENT DAY: NO CLASS**		

March 19-20 Faculty Development Day: NO CLASS

57	M Mar 23	10	Oral Physiology I	Dr. Nakamoto
58	M Mar 23	11	Oral Physiology II	Dr. Nakamoto
59	W Mar 25	10	**Exam III (L45-L58)**	**Faculty**
60	W Mar 25	11	**Exam III (L45-L58)**	**Faculty**
61	T Mar 26	10	**Post Exam Conference 3**	**Dr. Shepherd**
62	T Mar 26	11	**Post Exam Conference 3**	**Dr. Shepherd**
63	M Mar 30	10	Introduction to Endocrine Physiology	Dr. Shepherd
64	M Mar 30	11	Hypothalamus	Dr. Shepherd
65	W Apr 01	10	Anterior Pituitary (Ch 60)	Dr. Shepherd
66	W Apr 01	11	Posterior Pituitary (Ch 61)	Dr. Shepherd
67	T Apr 02	10	Growth Hormone (Ch 61-62)	Dr. Shepherd
68	T Apr 02	11	Thyroid Hormone (Ch 63)	Dr. Shepherd

EASTER Holiday, **5PM Thursday Apr 2 – 8AM Monday Apr 6**

NO.	Day/Date	Time	Topic	Instructor
69	M Apr 6	10	Adrenal Cortex (Ch 65)	Dr. Shepherd
70	M Apr 6	11	Adrenal Medulla	Dr. Shepherd
71	W Apr 8	10	Parathyroid Hormone (Ch 48, 64)	Dr. Shepherd
72	W Apr 8	11	Calcium Balance (Ch 48, 64)	Dr. Shepherd
73	T Apr 9	10	Pancreas (Ch 66)	Dr. Shepherd
74	T Apr 9	11	Metabolism	Dr. Shepherd
75	M Apr 13	10	Male Reproduction (Ch 67)	Dr. Shepherd
76	M Apr 13	11	Female Reproduction (Ch 68)	Dr. Shepherd
77	W Apr 15	10	Growth and Development (Ch 69)	Dr. Molina
78	W Apr 15	11	Growth and Development	Dr. Molina
79	T Apr 16	10	Aging and Physiologic Reserve	Dr. Molina
80	T Apr 16	11	Aging and Physiologic Reserve	Dr. Molina
81	M Apr 20	10	**EXAM IV (L63-L80)**	**Faculty**
82	M Apr 20	11	**EXAM IV (L63-L80)**	**Faculty**
83	W Apr 22	10	**Post Exam Review 4**	**Dr. Shepherd**
84	W Apr 22	11	**Post Exam Review 4**	**Dr. Shepherd**
85	**W Apr 29**	**10**	**EXAM V (L01-80)**	**Faculty**
86	**W Apr 29**	**11**	**EXAM V (L01-80)**	**Faculty**

8.0 Attendance

Attendance is mandatory for all courses in the dental, dental hygiene and dental laboratory technology programs at LSU School of Dentistry. The LSU School of Dentistry attendance policies for didactic, pre-clinical and clinical courses are included in the LSUSD STUDENT HANDBOOK OF POLICIES AND PROCEDURES.

(The policies will no longer be included in the course outlines.)

	Monday	Tue	Wednesday	Thursday	Fri
Jan	5 L01 - Introduction L02 - Homeostasis	6	7 L03 – Membranes L04 – Diffusion and Transport	8 L05 – Electrical Properties L06 – Action Potential	09
	12 L07 – Synapses I L08 – Synapses II	13	14 L09 – Pain, Temp, Touch, Pressure L10 – Oral Sensory and Voluntary Motor Mechanisms	15 L11 – Ascending sensory pathways L12 – Descending motor pathways	16
	19 **MLK, Jr, Day**	20	21 L13 – Reflexes-body and mandible L14 – Muscle Structure-Function	22 L15 - Excitation/Contraction L16 SK Muscle Contraction	23
	26 L17 Cardiac Muscle Contraction L18 Smooth Muscle Contraction	27	28 L19-20 **EXAM I (L1-L18)**	29 L21-22 **POST-EXAM REVIEW**	30
Feb	02 L23 Electrocardiography I L24 Electrocardiography II	03	04 L25 ANS and ECG abnormalities L26 Circulation: Overview	05 L27 The Heart as a Pump L28 Cardiac Cycle	06
	09 L29 Venous Return L30 Microcirculation	10	11 L31 Regulation of MABP L32 Special Circulations	12 L33 Hematology – Cells L34 Hematology – Clotting	13
MARDI GRAS Holiday 5:00 PM Friday, 13 Feb 2015 - 8:00 AM Monday 23 Feb 2015					
	23 L35 Respiratory System L36 Mechanics of Breathing	17	25 L37 Diffusion Ventilation-Perfusion L38 Gas transport and exchange	26 L39 Control of Breathing L40 Acid-Base and Body pH	20
Mar	02 L41-42 **EXAM II (L23-L40)**	03	04 L43-L44 **POST-EXAM REVIEW**	05 L45 Renal Structure Fluids L46 Function and Clearance	06
	09 L47 Renal Blood Flow L48 Tubular Reabsorption	10	11 L49 – Fluid-Electrolyte balance L50 – Renal Control of pH	12 L51 – GI: Introduction L52 – GI: Gastric Secretions	13
	16 L53 – Pancreas/salivarySecretions L54 – Digestion-Absorption CHO	17	18 L55 – Digestion-Absorption lipids L56 – The Large Intestine	19 **NO CLASS** **FACULTY DEVELOPMENT DAY**	20
	23 L57 – Oral Physiology I L58 – Oral Physiology II	24	25 L59-60 **EXAM III (L45-L58)**	26 L61-62 **POST-EXAM REVIEW**	27
Apr	30 L63 – Intro to Endocrine Physiology L64 - Hypothalamus	31	01 L65 Anterior Pituitary L66 Posterior Pituitary	02 L67 Growth Hormone L68 Thyroid Hormone	03
EASTER Break: 5PM April 2 – 8AM April 6					
	06 L69 Adrenal Cortex L70 Adrenal Medulla	07	08 L71 Parathyroid Hormone L72 Calcium Balance	09 L73 Pancreas L74 Metabolism	10
	13 L75 Male Reproduction L76 Female Reproduction	14	15 L77 Growth and Development L78 Growth and Development	16 L79 Aging and Physiologic Reserve L80 Aging and Physiologic Reserve	17
	20 L81-82 **EXAM IV (L67-L84)**	21	22 L83-84 **POST-EXAM REVIEW**	23	24

	27	28	29 **FINAL EXAM (L01-L84)**	30 **No Class** **GRAND ROUNDS**	01