

INTEGRATIVE ENDOCRINOLOGY (DRAFT 2)

Fall 2017: 01:146:450 (Tues and Fri 9:50-11:10am) AB 2400 College Ave Campus

Date	Lecture Content	Book Chapter	Case Study presentation; notes and information
Tues Sept 5	Introduction; Lecture 1: the molecular basis of hormones I	Ch 1	Overview of course; syllabus
Fri Sept 8	Lecture 2: the molecular basis of hormones II	Ch 1	
Tues Sept 12	Lecture 3 The hypothalamus and the concept of neurosecretion	Ch 2, p43	Case Study 1 – A rare case of Cushing’s disease
Fri Sept 15	Lecture 4 The pituitary gland – AP part 1	Ch 3, p51	
Tues Sept 19	Lecture 5 The pituitary gland – AP part 2	Ch 3 cont.	Case Study 2: Anterior Pituitary and Cushing’s Syndrome
Fri Sept 22	Lecture 6 Diseases of the AP – tumors that lead to hypo and hyper-functioning	Ch 5, p109	
Tues Sept 26	Lecture Exam 1 (70 min) MC, T/F and write-in		<i>EXAM 1 write-in includes specific case studies 1 and 2</i>
Fri Sept 29	Lecture 7 The pituitary gland – PP part 1	Ch 4, p89	
Tues Oct 3	Lecture 8 The pituitary gland – PP part 2 Lecture 9 Diseases of the PP – hypo and hyper-functioning gland	Ch 5, p125	Case Study 3: A lack of vasopressin (ADH) and diabetes insipidus
Fri Oct 6	Lecture 10 The gonads - the testes 1	Ch 6, p133	
Tues Oct 10	Lecture 11 The gonads – the testes 2		Case Study 4: testicular feminization
Fri Oct 13	Lecture 12 The gonads - the ovaries 1	Ch 7, p155	
Tues Oct 17	Lecture 13 The gonads – the ovaries 2		Case Study 5: Polycystic ovary syndrome
Fri Oct 20	Lecture 14 Diseases of the testes and diseases of the ovaries	Ch 6, p151 Ch 7, p182	Klinefelter’s Syndrome (47 XXY) and other cases
Tues Oct 24	CLINICAL APPLICATION ASSESSMENT Part 1 – Q 1-10 (30 min)		CAA includes specific on Case Studies 1-5

Fri Oct 27	Lecture 15 Hormones of Puberty Lecture 16 Hormones of Pregnancy	Ch 8 p189 Ch 9 p199	
Tues Oct 31	Exam 2 (70 min) MC, T/F and write-in		<i>EXAM 2 write-in includes specific case studies 3, 4 and 5</i>
Fri Nov 3	Lecture 17 The adrenal glands – the adrenal cortex Part 1	Ch 10 p211	
Tues Nov 7	Lecture 18 The adrenal glands – the adrenal cortex Part 2	Ch 10 p223	Case Study 6 –Addison’s disease
Fri Nov 10	Lecture 19 The adrenal glands – the adrenal medulla Lecture 20 Diseases of the adrenal cortex and medulla	Ch 11, p247 Ch 10 p236 Ch 11, p254	Case Study 7: Pheochromocytoma and Adrenocortical Adenoma
Tues Nov 14	Lecture 21 Endocrine control of salt and water balance, and pathologies	Ch 12, p259	
Fri Nov 17	Lecture 22 The thyroid gland and its hormones; Lecture 23 Diseases of the thyroid gland	Ch 13, p275 Ch 13, p291	Case Study 8 –Grave’s disease p293
Tues Nov 21	No classes (Thurs schedule)		
	Thanksgiving (Thursday, November 23 - Sunday, November 26)		No classes
Tues Nov 28	Exam 3 (70 min) MC, T/F and write-in		<i>EXAM 3 write-in includes specific case studies 6,7,8</i>
Fri Dec 1	Lecture 24 Islets of Langerhans and hormones	Ch 14, p303	
Tues Dec 5	Lecture 25 Diabetes mellitus and The Gut-Brain Axis	Ch 15, p325 Ch 16, p337	Case Study 9 – Diabetes Mellitus Types 1 and 2
Fri Dec 8	Lecture 26 Hormones, endocrine tumors and the gut, the genetics of endocrine tumors Lecture 27 The parathyroids, the endocrine kidney and Ca ²⁺ regulation	Ch 17, p343 Ch 19, p375 Ch 18, p349, -p366	Case Study 10- “Bones, stones, moans and groans – hyperparathyroidism

Tues Dec 12	CLINICAL APPLICATION ASSESSMENT Part 2 – Q 6-10 (30 min)		Case Studies 6-10 Last Day of Class
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Material that will be needed for each assessment is as follows:

- **Lecture Exam I (Tues Sept 26th):** Chapters 1,2,3,5 48 Q T/F, M/C plus 2 write-in Qs
- **Lecture Exam 2 (Tues Oct 31):** Chapters 4,5,6,7 48 Q T/F, M/C plus 2 Write-in Qs
- **Lecture Exam 3 (Tues Nov 28th):** Chapters 6,7,10,11,12,13 48 T/F, M/C plus 2 write-in Qs
- **Clinical application assessment (in 2 parts: Part 1 Tues Oct 24th, Part 2 Tues Dec 12th)** Each part will be an accumulative assessment on CS 1-5, and 6-10 respectively as given in class and will include selected portions from Ch 14 -19 of class material. Each part will have an MC portion followed by a short write-in section

COURSE OBJECTIVES:

01:146:450 Endocrinology: this course is designed to provide the student with the basis behind the structure and function of the endocrine and neuroendocrine glands as well as the biosynthesis and chemistry of the hormones produced by them. In addition, this course will enable the student to use an integrative approach to basic and clinical aspects of endocrinology, enhancing the students understanding of the consequences of diminished and excessive production of individual hormones through the presentation and discussion of specific clinical case studies.

EXAMINATIONS, CLINICAL APPLICATION ASSESSMENT AND IN-CLASS EXERCISES:

Examinations: There will be 3 equally weighted examinations, each 70 min in length.

Clinical Application Assessment: There will be 2 clinical application assessments based on the case studies and clinical applications in class, one toward the middle and one at the end of the semester. Each assessment will be 30 min in length (10 questions with an a) MC and b) write-in format,

Make-up exams will be given at the discretion of the instructor and only in the event of an **extreme and unexpected emergency (e.g. hospitalization)**. In some cases, an excused absence for an exam/assessment will be given but if a makeup exam is requested, the course instructor *must be notified within 12 hours* of the posted exam period and suitable documentation of the need is required. *Make-ups must be taken within 48 hr of the posted exam period* and scheduled (outside of regular class time) in the Office of Undergraduate Instruction office (B112 Nelson Labs, Busch). Failure to adhere to these policies will result in a grade of 0 for any missed exam or assessment.

For each exam RUID or a suitable picture ID must be produced.

Results for the exams and clinical assessment will be made available on the Sakai website under "Gradebook ". Gradebook will also provide students with their progress during the course, as well as their accumulative course grade; after each exam and assessment, booklets will be kept in the Office of Undergraduate Instruction (OUGI) but made available for each student to review after results have been

posted. You will not be permitted to remove any exam or assessment booklets from the OUGI office but you may take your scantron.

For Exam M/C and T/F there are *no partial marks*; there is only one correct answer to each question, and each answer must be completely correct to gain full credit. The write-in portion will be assessed fairly across the class student-base. All questions are equally weighted. The grades for exams and assessment assigned in this course *are not curved*

Office hours will be in AB 3450 from 1pm – 2pm each Fri. Other office hours by appointment.

Please refer to the CBN website for details on the Dept’s activities, policies and the importance of academic integrity.

FINAL GRADES are produced as follows:

- Lecture Exam 1 = 250 points (composed of 48 Q: MC and T/F plus 2 short word Qs each with 3 parts)
- Lecture Exam 2 = 250 points (composed of 48 Q: MC and T/F plus 2 short word Qs each with 3 parts)
- Lecture Exam 3 = 250 points (composed of 42 Q: MC and T/F plus 3 short word Qs each with 3 parts)
- Clinical Application Assessment; Part A = 125 points, Part B = 125 points (10 Q each with a) M/C and b) write-in format)

The total course points = 1000

COURSE GRADING:

A = 87.45 or greater

B+ = 83 – 87.45

B = 78 – 82.45

C+ = 73 – 77.45

C= 65 – 72.45

D = 58 – 64.45

F = < 57.99

COURSE INSTRUCTOR:

Dr Carolyn d’Arville, PhD, MS, Fed.

Lecturer, Assistant Professor in Life Sciences

Rutgers University, Division of Life Sciences (Busch Campus Labs, Rm 101)

Senior Scholar, Thomas Jefferson University Medical School, PA

CONTACT INFORMATION:

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REQUIRED TEXT FOR THE COURSE:

Integrated Endocrinology First Edition by John Laycock and Karim Meeran
©2013 John Wiley and Sons Ltd. Published 2013 by John Wiley and Sons Ltd
Paperback ISBN 978-0-4706-8812-0

Disclaimer: this book is a first edition, has been written by two English Professors and therefore some spelling may include the English version. Where necessary, the US version will be identified.

OTHER RESOURCES:

Various resources including lecture powerpoints, announcements, weblinks online, discussion and private messages links can be found at www.sakai.rutgers.edu. Enter the site using your RUID and password – then click on the **Endocrinology 146:450 Fall 2017** section tab. When you register for the course, this tab will become available to you.

Student-Wellness Services:

Just In Case Web App

<http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

The Office of Disability Services works with students with a documented disability to determine the eligibility

of reasonable accommodations, facilitates and coordinates those accommodations when applicable, and lastly engages with the Rutgers community at large to provide and connect students to appropriate resources.

Scarlet Listeners

(732) 247-5555 / <http://www.scarletlisteners.com/>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

Cd'A 7/10/2017