

## Planning and Quality Assurance Affairs

Form (A)

### Course Specifications

#### General Information

Course name	Endocrinology
Course number	AMSL4230
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	2
Credit hours (practical)	0
Course Prerequisites	

#### Course Objectives

- 1 - Upon completion of this course students should be capable of effectively communicating how endocrine systems function. Students should develop the ability to integrate across multiple endocrine systems to better understand the complexity of endocrine-related disorders. Students should also be capable of critically evaluating information provided by the media and literature on the topic. Lastly, students should gain a general understanding of the approaches used to study various facets of endocrinology.

#### Intended Learning Outcomes

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| Knowledge and Understanding | <ul style="list-style-type: none"> <li>* This course is designed to provide a broad overview of vertebrate endocrinology. Course topics will include the various classes of hormones, sources of hormones, production and synthesis of hormones, receptors and target tissues, mechanisms of action and regulation, and methods used in endocrinology. Lecture and readings from the primary literature will focus on classical endocrine systems</li> </ul> |
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## Course Contents

- 1 - Introduction: definitions, a brief history of endocrinology, key figures and research
- 2 - Methods in endocrinology, classes of hormones, cascades and feedback loop
- 3 - Hormone sources, synthesis, receptor and target tissues
- 4 - The steroid hormones: sources, structure, synthesis, regulation, receptors and effects on target tissues
- 5 - Special topic: Genomic and non-genomic mechanisms
- 6 - The hypothalamus and anterior pituitary
- 7 - Special topic: Anterior pituitary control over gonadal function and development
- 8 - Posterior pituitary
- 9 - Thyroid hormones: structure, control, release and function
- 10 - Special topic: Hypo- and hyperthyroidism
- 11 - Pancreatic hormones: Insulin and glucagon
- 12 - The adrenal glands: glucocorticoids, structure and function
- 13 - Special Topic: Stress hormones and interactions with other regulatory pathways
- 14 - Androgens
- 15 - Special topic: Androgens, gonadal differentiation
- 16 - Estrogens and the endocrinology of pregnancy

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## Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
Quizzes (3), Midterm, Final Exam		Quizzes (10 points each), Midterm 30 points, Final Exam 40 points

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## Books and References

Course note	Basic Medical Endocrinology, Fourth Edition, H. Maurice Goodman
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