

课程详述

COURSE SPECIFICATION

以下课程信息可能根据实际授课需要或在课程检讨之后产生变动。如对课程有任何疑问，请联系授课教师。

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	课程名称 Course Title	药理学 Pharmacology				
2.	授课院系 Originating Department	医学院 School of Medicine				
3.	课程编号 Course Code	MED403				
4.	课程学分 Credit Value	2				
5.	课程类别 Course Type	专业选修课 Major Elective Courses				
6.	授课学期 Semester	秋季 / Fall				
7.	授课语言 Teaching Language	中英双语 English & Chinese				
8.	授课教师、所属学系、联系方式 (如属团队授课, 请列明其他授课教师) Instructor(s), Affiliation & Contact (For team teaching, please list all instructors)	王玉琨, 教授, 南方科技大学医学院 Email:wangyk@sustech.edu.cn				
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	无 NA				
10.	选课人数限额(可不填) Maximum Enrolment (Optional)					
11.	授课方式 Delivery Method	讲授 Lectures	习题/辅导/讨论 Tutorials	实验/实习 Lab/Practical	其它(请具体注明) Other (Please specify)	总学时 Total
	学时数 Credit Hours	32	0	0	0	32

12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	无 None
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	无 None
14. 其它要求修读本课程的学系 Cross-listing Dept.	无 None

教学大纲及教学日历 SYLLABUS

15. 教学目标 **Course Objectives**

本课程主要介绍药物的药效学和药动学的内容，将以人体系统用药为主线，深入阐明临床常用药物在人体的代谢规律，作用机制，如何发挥其临床疗效等与生活息息相关现象。通过药理学学习，使学生理解药物的作用、作用原理及如何充分发挥其临床疗效，减少其不良反应，同时在掌握药理学基本理论，基本知识、基本技能的基础上，培养学生观察、分析、综合和解决问题的能力。

This course mainly introduces the pharmacodynamics and pharmacokinetics of drugs. It will focus on the use of drugs in the human body system, and clarify the phenomenon of the metabolism of the commonly used drugs in the human body, the mechanism of action, how to exert its clinical efficacy and other life-related phenomena. Through pharmacological learning, students can understand the role of drugs, the principle of action and how to give full play to its clinical efficacy, reduce its adverse reactions, and at the same time, on the basis of mastering the basic theories of pharmacology, basic knowledge and basic skills, training students to observe and analyze, the ability to integrate and solve problems.

16. 预达学习成果 **Learning Outcomes**

1. 掌握药物的体内过程，药物的基本作用，药物作用机制的受体理论，药物作用的非受体机制，药物的构效关系与量效关系，影响药物作用的因素。

To understand the in vivo process of drugs, the basic role of drugs, the receptor theory of drug action mechanism, the non-receptor mechanism of drug action, the structure-activity relationship of drugs and the dose-effect relationship, and the factors affecting drug action.

2. 熟悉神经、呼吸、循环、消化、泌尿、内分泌等系统常用药的机制。

To be familiar with the mechanisms of commonly used drugs in the system of nerves, respiration, circulation, digestion, urinary and endocrine.

3. 了解药理学和生物医学学科间的相互关系及该学科发展的前沿热点问题

Understand the interrelationship between pharmacology and biomedical disciplines and the hot issues at the forefront of the development of the discipline.

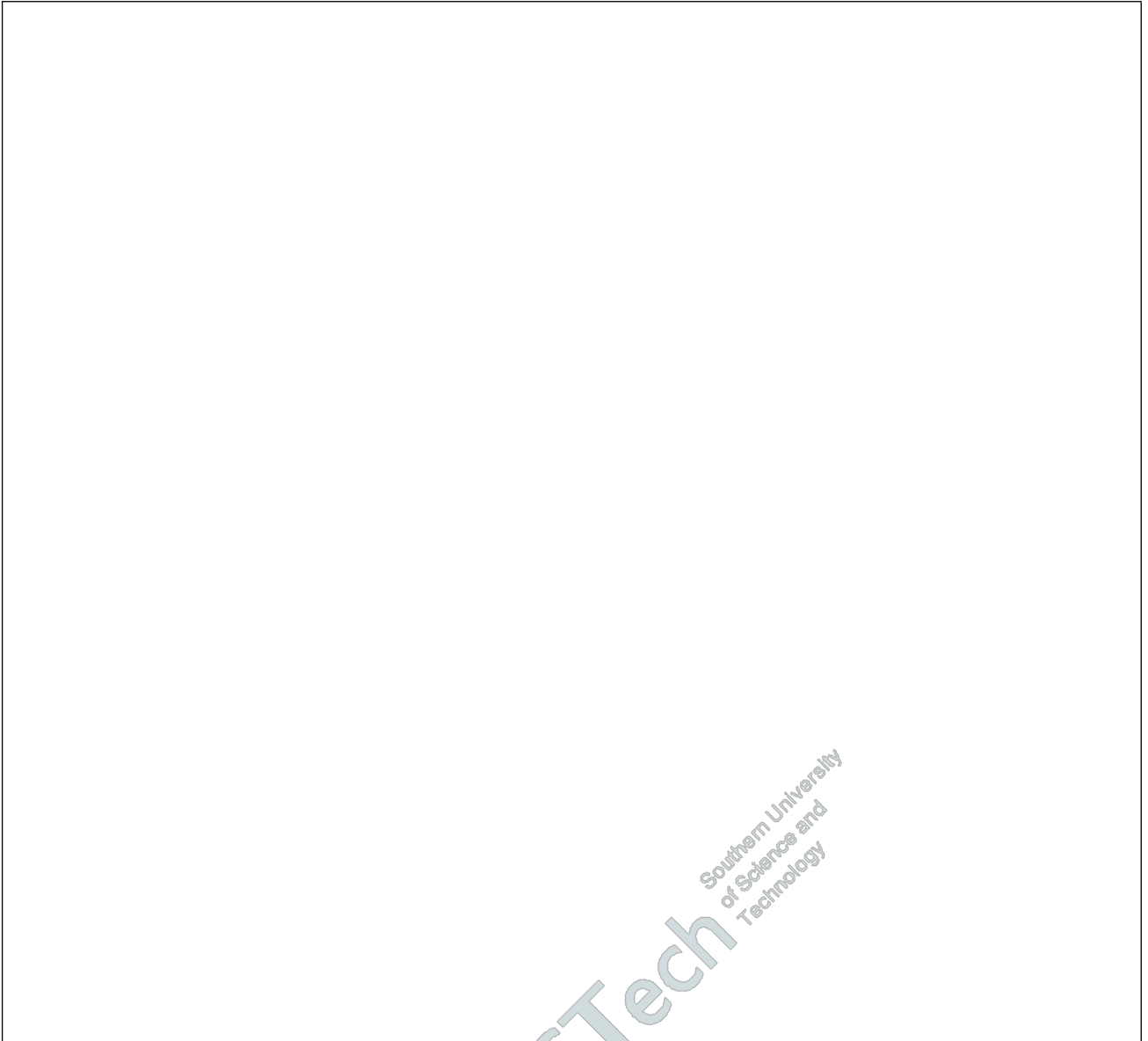
17. 课程内容及教学日历（如授课语言以英文为主，则课程内容介绍可以用英文；如团队教学或模块教学，教学日历须注明主讲人）**Course Contents (in Parts/Chapters/Sections/Weeks. Please notify name of instructor for course section(s), if this is a team teaching or module course.)**

第一章	总论和药物效应动力学 药理学概论 药物的基本作用 药物的量-效关系 药物与受体
Chapter 1	General and pharmacodynamics Introduction to Pharmacology. The basic role of drugs. Quantitative-effect relationship of drugs. Drugs and receptors
第二章	药物代谢动力学 药物的体内过程及跨细胞膜转运 药物消除动力学 药物代谢动力学的重要参数 药物剂量的设计与优化
Chapter 2	Pharmacokinetic In vivo process of drugs and transmembrane transport Drug elimination kinetics. Important parameters of pharmacokinetics Drug dosage design and optimization
第三章	传出神经系统概论及胆碱受体激动药和作用于胆碱酯酶药物 传出神经系统概述及作用于传出神经系统的药物基本作用和分类 胆碱受体激动药分类 抗胆碱酯酶药与胆碱酯酶复活药
	Chapter 3 Introduction to efferent nervous system and choline receptor agonists and cholinesterase drugs Overview of the efferent nervous system and the basic role and classification of drugs acting on the efferent nervous system. Choline receptor agonist classification. Anticholinesterase and cholinesterase resuscitation
第四章	胆碱受体阻断药 M 胆碱受体阻断药 N 胆碱受体阻断药
Chapter 4	Choline receptor blocker M-choline receptor blocker. N-choline receptor blocker.
第五章	作用于肾上腺受体药物 肾上腺受体激动剂 肾上腺受体阻断剂
Chapter 5	Adrenal receptor drug Adrenal receptor agonist. Adrenal receptor blocker.

第六章	<p>中枢神经系统药理学概论和麻醉药</p> <p>中枢神经系统的细胞学基础及常用药物</p> <p>全身麻醉药</p> <p>局部麻醉药</p>
Chapter 6	<p>Introduction to central nervous system pharmacology and anesthetics</p> <p>Cytological basis of the central nervous system and commonly used drugs.</p> <p>General anesthetic.</p> <p>Local anesthetic</p>
第七章	镇静催眠药 及部分中枢神经系统药物
Chapter 7	Sedative hypnotics and some central nervous system drugs
第八章	镇痛药和解热镇痛药
	阿片受体激动药
	环氧酶抑制药
Chapter 8	Analgesic and antipyretic analgesics
	Opioid receptor agonist.
	Cyclooxygenase inhibitor.
第九章	离子通道药物及部分心血管系统药
	离子通道概论
	抗心律失常药
	作用于肾素-血管紧张素系统的药物
Chapter 9	Ion channel drugs and some cardiovascular system drugs
	Introduction to ion channels.
	Antiarrhythmic drug.
	Drugs acting on the renin-angiotensin system
第十章	抗心绞痛和抗动脉粥样硬化药
	常用抗心绞痛药物
	调节血脂药
Chapter 10	Anti-angina and anti-atherosclerosis drugs
	Common anti-angina drugs.
	Regulating blood lipids.
第十一章	抗高血压药
	钙通道阻滞药
	β 肾上腺受体阻断药
Chapter 11	Antihypertensive drug
	Calcium channel blocker
	β Receptor blocker
第十二章	呼吸系统和消化系统药物
	平喘、镇咳、祛痰药
	治疗消化性溃疡药物
Chapter 12	Respiratory and digestive system drugs
	Asthma, antitussive, expectorant.

	Treatment of peptic ulcer drugs
第十三章	激素类药物
	肾上腺皮质激素类药物
	胰岛素与糖尿病
Chapter 13	Hormone drugs
	Adrenal corticosteroids.
	Insulin and diabetes.
第十四章	抗菌药物概论和 β 内酰胺类抗生素
	抗菌药物作用机制与分类
	β 内酰胺类抗生素
Chapter 14	Introduction to Antibacterials and β-lactam Antibiotics
	Antibacterial action mechanism and classification.
	β lactam antibiotic
第十五章	喹诺酮类、磺胺类和其它抗生素
Chapter 15	Quinolones, sulfonamides and other antibiotics
第十六章	抗恶性肿瘤药和免疫功能调节药物
	抗恶性肿瘤药的药理作用及分类
	免疫抑制药
	免疫增强药
Chapter 16	Anti-malignant drugs and immune function regulating drugs
	Pharmacological action and classification of anti-malignant drugs.
	Immunosuppressive drug.
	Immunopotentiating drug

Section	Hour	Teaching Contents
1	2	总论和药物效应动力学 General and pharmacodynamics
2	2	药物代谢动力学 Pharmacokinetic
3	2	传出神经系统概论及胆碱受体激动药和作用于胆碱酯酶药物 Introduction to efferent nervous system and choline receptor agonists and cholinesterase drugs
4	2	胆碱受体阻断药 Choline receptor blocker
5	2	作用于肾上腺受体药物 Adrenal receptor drug
6	2	中枢神经系统药理学概论和麻醉药 Introduction to central nervous system pharmacology and anesthetics
7	2	镇静催眠药及部分中枢神经系统药物 Sedative hypnotics and some central nervous system drugs
8	2	镇痛药和解热镇痛药 Analgesic and antipyretic analgesics
9	2	离子通道药物及部分心血管系统药 Ion channel drugs and some cardiovascular system drugs
10	2	抗心绞痛和抗动脉粥样硬化药 Anti-angina and anti-atherosclerosis drugs
11	2	抗高血压药 Antihypertensive drug
12	2	呼吸系统和消化系统药物 Respiratory and digestive system drugs
		激素类药物



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18. **教材及其它参考资料 Textbook and Supplementary Readings**

教材 Text book:

杨宝峰, 陈建国.药理学第九版[M].北京:人民卫生出版社,2018.

参考书 Reference books:

[1] 姚明辉.药理学（第一版）[M].北京:人民卫生出版社,2006.

[2] 杨世杰,郭青龙,李卫东.人体解剖生理学[M].北京:中国医药科技出版社, 2015.

[3] George M. Brenner PhD , Craig Stevens PhD.Pharmacology.2017

19. 评估形式 Type of Assessment	评估时间 Time	占考试总成绩百分比 % of final score	违纪处罚 Penalty	备注 Notes
出勤 Attendance		10		
课堂表现 Class Performance				
小测验 Quiz		30		
课程项目 Projects				
平时作业 Assignments				
期中考试 Mid-Term Test				
期末考试 Final Exam				
期末报告 Final Presentation		60		
其它（可根据需要 改写以上评估方式） Others (The above may be modified as necessary)				

20. 记分方式 GRADING SYSTEM

- A. 十三级等级制 Letter Grading
- B. 二级记分制（通过/不通过） Pass/Fail Grading

课程审批 REVIEW AND APPROVAL

21. 本课程设置已经过以下责任人/委员会审议通过
This Course has been approved by the following person or committee of authority

本课程已经医学院教学副主任张文勇教授审核通过。