

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	神经解剖学 Neuroanatomy
2.	授课院系 Originating Department	医学院 School of Medicine
3.	课程编号 Course Code	MED209
4.	课程学分 Credit Value	1.5
5.	课程类别 Course Type	专业基础课/Major Basic Courses
6.	授课学期 Semester	春季/Spring
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 Instructor(s), Affiliation & Contact (For team teaching, please list all instructors)	秦建强, 医学院, jqqin@fimmu.com Jianqiang Qin, School of Medicine, jqqin@fimmu.com
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	任铭新, 医学院, renmx@sustech.edu.cn Mingxin Ren, School of Medicine, renmx@sustech.edu.cn
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	16		16		32
12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	无/NA				
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	待定/To be determine				
14. 其它要求修读本课程的学系 Cross-listing Dept.	待定/To be determine				

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

1. 系统了解人体神经解剖学全貌。了解中枢神经系统的个体和种系发生概况及形态学研究的重要技术特点。
Students can have a systematic and comprehensive understanding of human neuroanatomy. Understand Individual and phylogenetic profiles of central nervous system and the important technical characteristics of morphological research.
2. 理解脑、脊髓各部的主要结构特点及主要神经化学特征。
Understand the main structural characteristics and neurochemical characteristics of the cerebrum and spinal cord.
3. 掌握脑、脊髓的内部结构、纤维通路。掌握重要部位损伤后果及临床应用要点。
Master the internal structure, fiber pathway of the cerebrum and spinal cord. Master the consequences of injury to important parts and the key points of clinical application.
4. 掌握神经解剖学主要结构的英文专业名词。
Master the English terms of major structures of neuroanatomy.

16. 预达学习成果 Learning Outcomes

- 通过课堂讲授、实验课大体解剖实际解剖操作、自习课观看解剖学标本照片、彩色图谱、多媒体库、VR 和教学录像等，以达到如下学习成果：
- Through various teaching methods as classroom lectures, actual operation of gross specimen in experimental classes, self-study classes to watch photographs of anatomical specimens, color atlas, multimedia library, VR and teaching videos, the following learning outcomes can be achieved:
1. 基础理论与基本知识：系统全面的认识神经系统的结构与功能，建立三维立体的人体结构概念，了解、熟悉和掌握人体神经系统正常的结构和功能、位置和毗邻、生长发育规律及其临床意义。
1. Basic theory and basic knowledge. Systematically and comprehensively understand the structure and function of nervous system. Establish a three-dimensional concept of human body structure. Understand, familiarize and master the normal structure and function of nervous system, position and adjacency, growth and development law and its clinical significance.

2. 基本技能：通过实地解剖操作，学会正确使用基本的解剖器械，达到能在尸体上进行切割、剥离、分离、修洁等基本解剖技能。
2. Basic Skills. Through operating of anatomy, learn how to use basic dissecting instruments correctly, Achieve the ability to perform basic anatomical skills such as cutting, stripping, separating, and cleaning on a corpse.
3. 中、英文解剖学专业词汇：能较流利的阅读英文版的解剖学书籍和其它医学书籍。
3. Anatomy vocabulary of Chinese and English. Fluent in reading English editions of anatomy books and other medical books.
4. 提高观察能力、辩证的科学思维方式、分析问题与解决问题的能力。
4. Improve observation ability, dialectical scientific thinking mode, ability of analysing and solving problems.

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.)

第一讲 头皮

头部境界、分区和表面解剖；头皮的层次解剖

Lecture 1 Scalp

Division, boundary and surface anatomy of head. The hierarchical anatomy of the scalp

第二讲 颅骨

示教观察分离颅骨和颅骨的整体观

Lecture 2 Skull

Teaching and observation of skull and the whole view of separating skull

第三讲 神经系统概述、脊神经总结

神经系统概述、脊神经总结

Lecture 3 Summary of nervous system and spinal nerves

Overview of nervous system. Summary of spinal nerves

第四讲 颌面部浅层、腮腺

颌面部浅层、腮腺解剖

Lecture 4 Superficial maxillofacial layer and parotid gland

Superficial anatomy of maxillofacial region and anatomy of parotid gland

第五讲 开颅取脑、海绵窦解剖

开颅取脑、海绵窦解剖

Lecture 5 Take the brain by craniotomy, anatomy of the cavernous sinus

Take the brain by craniotomy, anatomy of the cavernous sinus

第六讲 脑神经

脑神经的辨认和总结

Lecture 6 Cranial nerve

Identification and summary of the cranial nerves

第七讲 脊髓外形与内部结构

脊髓外形和内部结构

Lecture 7 Shape and internal structure of Spinal Cord

Shape and internal structure of Spinal Cord

第八讲 脑干外形

脑干外形

Lecture 8 Shape of brainstem

Shape of brainstem

第九讲 脑干内部结构

脑干内部结构

Lecture 9 Internal structure of brainstem

Internal structure of brainstem.

第十讲 间脑外形与内部结构

间脑外形与内部结构

Lecture 10 Shape and internal structure of diencephalon

Shape and internal structure of diencephalon

第十一讲 小脑、大脑外形

小脑外形

大脑外形

Lecture 11 Shape of cerebellum and cerebrum

Shape of cerebellum

Shape of cerebrum

第十二讲 小脑、大脑内部结构

小脑内部结构

大脑内部结构

Lecture 12 Internal structure of cerebellum and cerebrum

Internal structure of cerebellum

Internal structure of cerebrum

第十三讲 感觉和运动传导路

感觉和运动传导路

Lecture 13 Sensory and motor pathway

Sensory and motor pathway

第十四讲 传导路讨论

传导路讨论（临床案例分析）

Lecture 14 Conductive path discussion

Conductive path discussion (Clinical case analysis)

第十五讲 内脏神经

掌握内脏神经

Lecture 15 Splanchnic nerves

Master the Splanchnic nerves

第十六讲 脑膜、脑血管、脑脊液循环

掌握脑膜：软脑膜、蛛网膜、硬脑膜、大脑镰、小脑幕

掌握脑脊液的形成和循环

掌握中枢神经系统的血液供应

Lecture 16 Meninges and blood vessel of brain, circulation of CSF

Master the meninges: pia matter, arachnoid and dura matter, falx cerebri, tentorium cerebelli

Master the formation and circulation of the cerebrospinal fluid

Master the blood supply of CNS

教学日历
Teaching Calendar

专题 Topics	教学内容 Teaching Contents	学时 Lecture Hours	教学方法 Teaching Methods	
			讲授 Lecture	实验 Lab
第一讲 Lecture 1	头皮 Scalp	2	1	1
第二讲 Lecture 2	颅骨 Skull	2	1	1
第三讲 Lecture 3	神经系统概述、脊神经总结	2	1	1

	Summary of nervous system and spinal nerves			
第四讲 Lecture 4	颌面部浅层、腮腺 Superficial maxillofacial layer and parotid gland	2	1	1
第五讲 Lecture 5	开颅取脑、海绵窦解剖 Take the brain by craniotomy, anatomy of the cavernous sinus	2	1	1
第六讲 Lecture 6	脑神经 Cranial nerve	2	1	1
第七讲 Lecture 7	脊髓外形与内部结构 Shape and internal structure of Spinal Cord	2	1	1
第八讲 Lecture 8	脑干外形 Shape of brainstem	2	1	1
第九讲 Lecture 9	脑干内部结构 Internal structure of brainstem	2	1	1
第十讲 Lecture 10	间脑外形与内部结构 Shape and internal structure of diencephalon	2	1	1
第十一讲 Lecture 11	小脑、大脑外形 Shape of cerebellum and cerebrum	2	1	1
第十二讲 Lecture 12	小脑、大脑内部结构 Internal structure of cerebellum and cerebrum	2	1	1
第十三讲 Lecture 13	感觉和运动传导路 Sensory and motor pathway	2	1	1
第十四讲 Lecture 14	传导路讨论 Conductive path discussion	2	1	1
第十五讲 Lecture 15	内脏神经 Splanchnic nerves	2	1	1
第十六讲 Lecture 16	脑膜、脑血管、脑脊液循环 Meninges and blood vessel of brain, circulation of CSF	2	1	1
	期末考试 Final exam			
	合计 Summary	32	16	16

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

教材 Textbooks:

1. 李云庆《神经解剖学》第四军医大学出版社，2006.
2. Richard Drake. Gray's Anatomy for Student. 3rd ed. Churchill Livingstone, 2014

参考资料 Reference Readings:

1. Susan Standring. Gray's Anatomy: The Anatomical Basis of Clinical Practice. 41th Ed. Elsevier, 2015
2. Anne M. R. Agur. Grant's Atlas of Anatomy. 14th Ed. LWW, 2016.
3. Michael Schuenke, Erik Schulte. Thieme Atlas of Anatomy: General Anatomy and Musculoskeletal System. German, Thieme Medical Publishers Inc, 2010.
4. Michael Schuenke, Erik Schulte. Thieme Atlas of Anatomy: Head, Neck, and Neuroanatomy. 2nd ed. German, Thieme Medical Publishers Inc, 2016.
5. Michael Schuenke, Erik Schulte. Thieme Atlas of Anatomy: Internal Organs. 2nd ed. German, Thieme Medical Publishers Inc, 2016.
6. 学习网站: www.studentconsult.com

课程评估 ASSESSMENT

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	30min*2次	20 (10*2次)		
课程项目 Projects				
平时作业 Assignments		20		
期中考试 Mid-Term Test				
期末考试 Final Exam	2h	50		
期末报告 Final Presentation				
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院长张文勇教授审核通过。

