

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	围术期医学 Perioperative Medicine
2.	授课院系 Originating Department	医学院 School of Medicine
3.	课程编号 Course Code	MED334
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	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 (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)	宋学军, 医学院, songxuejun@sustech.edu.cn Xuejun Song, School of Medicine, songxuejun@sustech.edu.cn
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	
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				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	待定/To be determined				
14. 其它要求修读本课程的学系 Cross-listing Dept.	待定/To be determined				

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

本课程旨在加深学生对于围术期医学的了解，提高学生对于外科手术、麻醉、术后康复等围术期重要过程的认识水平，掌握目前外科发展的先进理念与前沿技术，为进入医院开展临床实习及日后的临床工作奠定坚实的理论基础。

The elective course is for clinical medical students, which aims to improve the understanding to surgery, anesthesiology, rehabilitation medicine and other perioperative disciplines; and to learn the advances of surgery. The course is helpful to the intern students for their future clinical work.

16. 预达学习成果 Learning Outcomes

- 了解围术期医学的基本概念和内涵；
 - 掌握围术期医学所涉及的核心原则与重要方法；
 - 能够运用围术期医学的基本知识指导临床实践。
- Understand the basic principle and content of Perioperative Medicine;
 - Grasp the key mechanism and methodology of Perioperative Medicine;
 - Be capable to use the knowledge of Perioperative Medicine in clinical practice.

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: 围术期医学绪论 Preface and introduction of perioperative medicine

- 围术期医学课程的授课目的、授课安排、授课方式以及讲者等基本信息, 总体上介绍课程的基本内容, 并了解学生方面的需求。

Introducing the basic information of the course, including the objective, schedule and basic contents. Communicating with students to know their requirements.

2. 围术期医学概念、定义、临床医疗范围及其发展历史。

Introducing the concept, definition, medical practice and history of Perioperative Medicine.

3. 围术期医学在医学科学中的地位和临床医疗实践中的重要性。

The importance of Perioperative Medicine in medical sciences and clinical medical practice.

第二讲：术前评价 Evaluation before Anesthesia

1. 掌握术前评价的基本内容和要点。 Learn the content of preoperative evaluation.
2. 了解麻醉风险评估的原则和方法。 Understand the principle of anesthesia risk evaluation.

第三讲：麻醉 Anesthetics

1. 掌握临床常用的吸入与静脉麻醉方法及药物，熟悉肌松药的使用。

Master: MAC; clinical application of the commonly used inhalational anesthetic agents and intravenous anesthetic agents; classification of muscle relaxant, two groups of muscle relaxant features, application of muscle relaxant announcements.

2. 理解麻醉药物的药理学性质。

Understand: pharmacological property of the commonly used inhalational anesthetic agents; factors affecting alveolar concentration of inhalational anesthetics; physico-chemical property, pharmacological property of the commonly used intravenous anesthetic agents.

第四讲：术中循环系统管理 Intra-operative circulation management

1. 了解术中血流动力学监测的意义。 Know the significance of hemodynamic surveillance.
2. 了解术中循环系统管理的基本内容。 Know the basic content of circulation management.

第五讲：术中呼吸系统管理

Management of respiratory system during operation

1 前言 Introduction

介绍课程的授课目的、授课安排、授课方式以及讲者等基本信息，了解学生方面的需求。

Introducing the basic information of the course, including the objective, schedule and basic contents. Communicating with students to know their requirements.

2. 术中呼吸管理的意义 Significance of intraoperative respiratory management

了解术中呼吸管理的意义。To learn significance of intraoperative respiratory management.

3 麻醉药及麻醉方式对呼吸的影响 Effects of anesthetics and anesthetic methods on respiration.

熟悉各类麻醉药物以及各种麻醉方式对呼吸的影响。To understand the effects of anesthetic drugs and anesthetic methods on respiration.

4 手术方式对呼吸的影响 Effect of surgical method on respiration

了解手术方式对呼吸的影响。To learn effect of surgical method on respiration.

5. 术中呼吸管理的主要策略 Strategies for intraoperative respiratory management

熟悉术中呼吸管理的主要方法和策略。To understand strategies and methods for intraoperative respiratory management.

第六讲：重症监护与管理 Intensive care and management

掌握重症监护的基本原则。 Know the principle of ICU.

第七讲：免气腹腹腔镜手术 No CO₂ Laparoscopic surgery

1 导论 Preface and Introduction

介绍课程的授课目的、授课安排、授课方式以及讲者等基本信息，总体上介绍课程的基本内容，并了解学生方面的需求。

Introducing the basic information of the course, including the objective, schedule and basic contents. Communicating with students to know their requirements.

2 免气腹腹腔镜手术的历史 History of No CO₂ laparoscopic surgery

介绍免气腹腹腔镜的历史。Introducing the history of No CO₂ Laparoscopic surgery.

3 免气腹腹腔镜的分类和特点 Classification and characteristics of No CO₂ laparoscopic surgery

了解免气腹腹腔镜的分类及其特点。To learn the classification of No CO₂ Laparoscopic surgery and the characteristics of each type.

4 免气腹腹腔镜的临床应用现状 Current application of No CO₂ laparoscopic surgery

了解免气腹腹腔镜的临床应用现状。To learn the clinical application of No CO₂ Laparoscopic surgery.

5 免气腹腹腔镜未来发展趋势 Future of No CO₂ Laparoscopic surgery

了解免气腹腹腔镜的未来发展方向和趋势。To understand the future of No CO₂ Laparoscopic surgery.

第八讲：围手术期神经疾病 Perioperative neurological disorders

1 导论 Preface and Introduction

介绍课程的授课目的、授课安排、授课方式以及讲者等基本信息，总体上介绍课程的基本内容，并了解学生方面的需求，并介绍围手术期神经疾病包括脑血管病、癫痫、术后认知功能障碍等疾病。

Introducing the basic information of the course, including the objective, schedule and basic contents. Communicating with students to know their requirements. Introducing the perioperative neurological disorder: including: stroke, epilepsy, post-operative cognitive disorder (POCD) and so on.

2 围手术期神经系统功能变化特征 Characteristic of neurological function during perioperative stage

介绍神经系统在围手术期特殊情况下的功能变化。Introducing the change and characteristic of neurological function in perioperative stage.

3 围手术期神经疾病的概况 The survey of perioperative neurological disorder

介绍围手术期神经疾病的发病率、危险因素、发病机理、治疗和和康复。Introducing the incidence, risk factors, pathogenesis management and outcome of perioperative neurological disorders.

4 围手术期神经疾病的预防和处理 The treatment and prevention perioperative neurological disorder

掌握围手术期神经疾病的防治原则。To master the principles of the treatment and prevention perioperative neurological.

第九讲：快速康复外科 Fast track surgery

1. 掌握快速康复外科的基本概念。Know the concept of FTS.
2. 了解快速康复外科的基本内容和临床应用。Understand the content and clinical application of FTS.
3. 掌握快速康复外科的临床要点。Know the key points of FTS.

第十讲：围手术期输血管理及保护措施 Perioperative blood transfusion management and protective measures

介绍围手术期输血成分、输血指征、输血相关风险及预防措施。Introduce perioperative blood transfusion components, blood transfusion indications, blood transfusion-related risks and preventive measures.

第十一讲：营养支持治疗与加速康复外科 Nutritional support therapy and Enhanced recovery after surgery

1 导论 Preface and Introduction

介绍加速康复外科的概念与发展历史，围绕围手术期患者的代谢特点介绍加速康复外科与营养支持治疗的关系。Introducing the concept and development history of Enhanced recovery after surgery.

Introducing the relation between enhanced recovery after surgery and nutritional support therapy revolving about metabolic characteristics of perioperative patients.

2 加速康复外科各阶段的营养管理 Nutritional management at all stages of Enhanced recovery after surgery

介绍术前营养评估与营养支持、围手术期饮食管理、术后营养支持。Introducing preoperative nutritional assessment and nutritional support, perioperative diet management and

第十二讲：科学问题的发现与科研论文写作

Scientific discovery and writing

通过阅读科研论文文献分析评价一个已经发表的临床试验，从围术期医学的角度分析该临床试验的科学性、结果的可靠性与可能存在的偏倚，并给出可能的改进意见。最后，将总结该科研论文的写作思路和写作结构。By reading a research article in the journal of Perioperative Medicine, the reliability and possible bias of the clinical trial results would be analysed in the perspective of perioperative medicine, and possible suggestions for improvement would be given as well. At last, the structures of scientific paper and the writing skills of scientific manuscripts would be summarized.

第十三讲：数字化医学与临床实践 Digital medicine and clinical practice

1. 门诊部、急诊科、药剂科、见习，了解医院门诊布局、以及急重诊、非急诊疾病的就医流程

Introduce the Trainee Programs in Outpatient Department (OPD), Emergency Department (E.D. or ER), Pharmacy Department; as well as the Layout of OPD, the medical treatment processes for Emergency patients and Non-emergency patients.

2. 检验科、放射科、超声科、内镜室、功能科参观，了解医学辅助诊断的内容及临床价值

Visit Clinical Laboratory, Radiology Department, Ultrasonography Department, Endoscopy Rooms, and other functional departments; To know about medical auxiliary diagnosis and its clinical value.

3. 信息科、创新中心、静配中心参观，了解信息化、数字化、智能化在现代智慧医院建设中的应用

Visit the Information Department, Innovation Center, and Pharmacy Intravenous Admi

ixture Service (PIVAS) to learn about their roles in a smart hospital based on the informatization, digitization, and AI technologies.

4. ICU、手术室参观，数字化手术室示教室观看手术直播，结合手术进行病案讲解，掌握围术期各环节中疾病的诊疗方案

Visit ICU, Operating Rooms; Watch the live surgery in the digital operating showing room and explain the medical records in this case at the same time; To know the diagnosis and treatment plans in every step of the perioperative period.

Section	Topic	Hours
1	PREFACE AND INTRODUCTION OF PERIOPERATIVE MEDICINE	2
2	EVALUATION BEFORE ANESTHESIA	2
3	ANESTHETICS	2
4	INTRA-OPERATIVE CIRCULATION MANAGEMENT	2
5	MANAGEMENT OF RESPIRATORY SYSTEM DURING OPERATION	2
6	INTENSIVE CARE AND MANAGEMENT	2
7	NO CO ₂ LAPAROSCOPIC SURGERY	2
8	PERIOPERATIVE NEUROLOGICAL DISORDERS	2
9	FAST TRACK SURGERY	2
10	PERIOPERATIVE BLOOD TRANSFUSION MANAGEMENT AND PROTECTIVE MEASURES	2
11	NUTRITIONAL SUPPORT THERAPY AND ENHANCED RECOVERY AFTER SURGERY	2
12	SCIENTIFIC DISCOVERY AND WRITING	2
13	DIGITAL MEDICINE AND CLINICAL PRACTICE	8

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

教材 Textbook:

Sabiston Textbook of Surgery, 20th Edition, Elsevier, 2016.

《ANAESTHESIOLOGY》国家规划教材第一版（2008年）清华大学出版社 王国林 郭曲练

课程评估 ASSESSMENT

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				
课程项目 Projects				
平时作业 Assignments		30		
期中考试 Mid-Term Test				
期末考试 Final Exam		60		
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。