

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	外科学总论 General Surgery
2.	授课院系 Originating Department	医学院 School of Medicine
3.	课程编号 Course Code	MED318
4.	课程学分 Credit Value	3
5.	课程类别 Course Type	专业核心课/ Major Core 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)	庄永青, 南方科技大学附属第一医院, Zhuangyq@sina.com Yongqing Zhuang, 1st Affiliated Hospital of SUSTech, Zhuangyq@sina.com
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	王博, 医学院, wangb7@sustech.edu.cn Bo Wang, School of Medicine, wangb7@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	30	2	32		64
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 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

外科学总论主要讲述外科疾病的基本知识、基本理论，即外科疾病的病因、发展规律、病理、临床表现、系统检查、诊断要点、鉴别诊断、预防和治疗原则、手术适应症等。同时要学习外科基本操作技能，主要是培养医学生建立严格的无菌观念、得到规范的无菌操作和手术基本操作技术的训练。

General Surgery mainly explains the basic knowledge and basic theories of surgical diseases, namely the etiology, development rules, pathology, clinical manifestations, systematic examinations, diagnosis points, differential diagnosis, principles of prevention and treatment, and surgical indications of surgical diseases. At the same time, it is necessary to learn basic surgical skills, for training medical students to establish a strict concept of aseptic, get standardized aseptic operations and basic surgical techniques.

16. 预达学习成果 Learning Outcomes

本课程完成后，学生应掌握外科疾病的基本知识、基本理论，即外科疾病的病因、发展规律、病理、临床表现、系统检查、诊断要点、鉴别诊断、预防和治疗原则、手术适应症等。同时要掌握外科基本操作技能、无菌操作和手术基本操作技术的基本要求和规范。

After the completion of this course, students should master the basic knowledge and theory of surgical diseases, including the etiology, development law, pathology, clinical manifestations, systematic examination, key points of diagnosis, differential diagnosis, prevention and treatment principles, surgical indications, etc. At the same time, they should master the basic surgical skills, aseptic operation and basic operation technology requirements and norms.

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 绪论

【目标要求】

1. 了解外科学的范畴和我国在外科方面的成就。
2. 树立学习外科学的正确观点。

【自学内容】

外科学的范畴，与其它学科的关系。

【重点难点】

怎样学习外科学。

Chapter I Overview

[Target requirements]

1. Understand the scope of surgery and the achievements in surgery in China.
2. Establish a correct view of learning surgery.

[Self-study content]

The category of surgery and its relationship with other disciplines.

[Key and difficult points]

How to study surgery.

第二章 无菌术

【目标要求】

1. 掌握洗手、穿无菌手术衣和戴无菌手套。
2. 掌握手术区皮肤的消毒和铺巾。
3. 树立无菌观点，熟悉手术时的无菌操作规则。
4. 熟悉常用的灭菌法和消毒法。
5. 了解手术室管理。

【教学内容】

无菌术的概念和组成，手术器械、物品、敷料的灭菌法和消毒法。

手术人员术前准备，手术区的准备，无菌操作规则，手术室管理。

【重点难点】

洗手，穿无菌手术衣和戴无菌手套，以及手术区的准备。

Chapter II Asepsis

[Target requirements]

1. Master hand washing, sterile gowns and sterile gloves wearing.
2. Master the disinfection and draping of the skin in the operation area.
3. Establish a sterile point of view and be familiar with the sterile operation rules during surgery.
4. Be familiar with commonly used sterilization methods and disinfection methods.
5. Understand operating room management.

[Teaching content]

The concept and composition of aseptic surgery, sterilization method and disinfection method of surgical instruments, articles and dressings.

Preoperative preparation by operating staff, preparation of operation area, sterile operation rules, operating room management.

[Key and difficult points]

Wash hands, wear sterile gowns and sterile gloves, and prepare the surgical field.

第三章 水、电解质代谢紊乱和酸碱平衡失调

【目标要求】

1. 掌握各型缺水、低钾血症和高钾血症的诊断和防治方法。掌握代谢性酸中毒的临床表现、诊断和治疗。
2. 熟悉各型缺水、低钾血症和高钾血症的临床表现。熟悉代谢性酸中毒的病理及代谢性碱中毒的病理生理、临床表现、诊断和治疗。
3. 熟悉体液酸碱平衡失调的综合防治方法。
4. 了解呼吸性酸中毒和呼吸性碱中毒的临床表现、诊断和治疗。

【教学内容】

高渗性、低渗性和等渗性缺水的病理生理、临床表现、诊断和防治方法。低钾血症和高钾血症的原因、病理生理、临床表现、诊断和治疗。代谢性酸中毒和代谢性碱中毒的病理生理、临床表现、诊断和治疗。水、电解质代谢和酸碱平衡失调的综合防治原则、步骤和治疗过程中可能发生的问题。

【自学内容】

水、电解质代谢和酸碱平衡的概念，缺水和缺钠的关系，酸碱平衡的维持。

【重点难点】

水、电解质代谢和酸碱平衡的概念，缺水和缺钠的关系，代谢性酸中毒的临床表现、诊断和治疗。

Chapter III Disorders of water and electrolyte metabolism and acid-base balance

[Target requirements]

1. Master the diagnosis, prevention and treatment of various types of water shortage, hypokalemia and hyperkalemia. Master the clinical manifestations, diagnosis and treatment of metabolic acidosis.
2. Be familiar with the clinical manifestations of various types of water deficiency, hypokalemia and hyperkalemia. Be familiar with the pathology of metabolic acidosis and the pathophysiology, clinical manifestations, diagnosis and treatment of metabolic alkalosis.
3. Be familiar with the comprehensive prevention and treatment of acid-base imbalance in body fluids.
4. To understand the clinical presentation, diagnosis and treatment of respiratory acidosis and respiratory alkalosis.

[Teaching content]

Pathophysiology, clinical manifestations, diagnosis, prevention and treatment of hyperosmolar, hyperosmolar and isotonic water shortage. Causes, pathophysiology, clinical presentation, diagnosis, and treatment of hypokalemia and hyperkalemia. Pathophysiology, clinical presentation, diagnosis, and treatment of metabolic acidosis and metabolic alkalosis. Comprehensive prevention and treatment principles, steps and possible problems in the treatment of water and electrolyte metabolism and acid-base imbalance.

[Self-study content]

The concept of water and electrolyte metabolism and acid-base balance, the relationship between water

deficiency and sodium deficiency, and the maintenance of acid-base balance.

[Key and difficult points]

The concept of water and electrolyte metabolism and acid-base balance, the relationship between water and sodium deficiency, and the clinical presentation, diagnosis, and treatment of metabolic acidosis.

第四章 输血

【目标要求】

1. 掌握输血的适应证、并发症及其防治。
2. 熟悉输血的途径、速度和注意事项。
3. 了解自体输血的作用及血液成分制品、血浆增量剂的用途。

【教学内容】

输血的适应证和途径。输血可能发生的并发症，其临床表现和治疗方法，自体输血的种类及其应用方法，血浆增量剂和血液成分的应用。

【重点难点】

输血的适应证、并发症及其防治。

Chapter IV Blood Transfusion

[Target requirements]

1. Master the indications, complications, prevention and treatment of blood transfusion.
2. Be familiar with the route, speed and precautions of blood transfusion.
3. To understand the role of autologous blood transfusion and the use of blood component products and plasma increment agents.

[Teaching content]

Indications and approaches for blood transfusion. Possible complications of blood transfusion, clinical manifestations and treatment methods, types and application methods of autologous blood transfusion, application of plasma increment agents and blood components.

[Key and difficult points]

Indications, complications, prevention and treatment of blood transfusion.

第五章 外科休克

【目标要求】

1. 掌握外科休克病人的诊断，观察指标和治疗。
2. 熟悉外科休克的病因和病理生理变化。
3. 熟悉外科休克的分类和临床表现。

【教学内容】

休克发生的原因、分类和基本病理生理变化，低血容量性休克、感染性休克的病理变化特点，休克的诊断、监测和治疗方法。

【重点难点】

休克的诊断、监测和治疗方法。

Chapter V Surgical Shock

[Target Requirements]

1. Master the diagnosis, observation index and treatment of patients with surgical shock.
2. Be familiar with the etiology and pathophysiological changes of surgical shock.
3. Be familiar with the classification and clinical manifestations of surgical shock.

[Teaching content]

Causes, classification and basic pathophysiological changes of shock, pathological changes of hypovolemic shock and septic shock, diagnosis, monitoring and treatment of shock.

[Key and difficult points]

Diagnosis, monitoring and treatment of shock.

第六章 麻醉

【目标要求】

1. 掌握局麻药常用剂量及常见小手术局麻技术。
2. 熟悉麻醉前一般准备和麻醉前用药。
3. 熟悉麻醉意外和麻醉并发症的防止和处理要领。
4. 掌握局麻药毒性反应的症状、预防和正确处理。
5. 熟悉常用神经阻滞的实施原则。
6. 熟悉椎管内麻醉的实施原则和并发症的防治。
7. 了解麻醉的概念和临床任务。
8. 了解麻醉前准备的必要性和麻醉中观察病人的重要性。根据病情和手术要求了解麻醉选择和处理的的原则。
9. 了解常用全麻药的临床药理、全身麻醉的常用方法、气管内麻醉术和肌松药的应用。
10. 了解椎管内麻醉的并发症。

【教学内容】

1. 麻醉的概念、麻醉学的发展和现状、麻醉的临床任务。
2. 麻醉前准备和麻醉前用药，包括病人体格和精神方面的准备、麻醉技术和器材的准备，决定麻醉前用药或基础麻醉。
3. 全身麻醉：全身麻醉的概念。吸入麻醉药的吸收、临床评价、常用吸入麻醉药的临床药理和临床应用。静脉麻醉药的临床药理和临床应用。肌松弛药在麻醉中的应用。全麻的意外及并发症的防止和处理要点。
4. 局部麻醉：普鲁卡因、丁卡因、利多卡因、布比卡因的临床药理，各种常用局麻方法、剂量和浓度，毒性反应的识别、防止和处理。
5. 椎管内麻醉：蛛网膜下腔和硬脊膜外腔麻醉的生理影响和临床应用，麻醉意外和麻醉后并发症的防止

和处理。

6. 麻醉期间各项生理参数的观察及麻醉后苏醒期间的护理。

【自学内容】

1. 乙醚吸入麻醉的分期。乙醚开放滴人麻醉的具体操作和注意事项。气管内麻醉。
2. 臂丛神经阻滞、肋间神经阻滞、颈丛神经阻滞的局部麻醉。
3. 椎管的解剖生理。椎管内麻醉的操作方法 b。
4. 控制性降压和全身低温。

【重点难点】

全身麻醉的概念。常用吸入麻醉药的临床药理和临床应用。静脉麻醉药的临床药理和临床应用。肌松弛药在麻醉中的应用。全麻的意外及并发症的防止和处理要点。各种常用局麻方法、剂量和浓度，毒性反应的识别、防止和处理。蛛网膜下腔和硬脊膜外腔麻醉的生理影响和临床应用，麻醉意外和麻醉后并发症的防止和处理。

Chapter VI Anaesthesia

[Target requirements]

1. Master the commonly used dose of local anesthetics and common local anesthesia techniques for minor surgery.
2. Be familiar with general preanesthetic preparation and preanesthetic medication.
3. Be familiar with the prevention and treatment of anesthesia accidents and anesthesia complications.
4. To master the symptoms, prevention and correct treatment of local anesthetic toxicity.
5. Be familiar with the implementation principles of commonly used nerve blocks.
6. Be familiar with the implementation principles of spinal anesthesia and the prevention and treatment of complications.
7. Understand the concept and clinical tasks of anesthesia.
8. Understand the necessity of preanesthetic preparation and the importance of observing the patient during anesthesia. Understand the principles of anesthesia selection and management according to the condition and surgical requirements.
9. Understand the clinical pharmacology of commonly used general anesthetics, commonly used methods of general anesthesia, endotracheal anesthesia, and the application of muscle relaxants.
10. Understand the complications of spinal anesthesia.

[Teaching content]

1. The concept of anesthesia, the development and current status of anesthesiology, and the clinical tasks of anesthesia.
2. Preanesthetic preparation and preanesthetic medication, including physical and mental preparation of the patient, preparation of anesthetic techniques and equipment, and determination of preanesthetic medication or basic anesthesia.
3. General anesthesia: the concept of general anesthesia. Absorption, clinical evaluation, clinical

pharmacology and clinical application of commonly used inhaled anesthetics. Clinical pharmacology and clinical application of intravenous anesthetics. Muscle relaxants in anesthesia. Accidents of general anesthesia and prevention and treatment of complications.

4. Local anesthesia: clinical pharmacology of procaine, tetracaine, lidocaine, bupivacaine, various commonly used local anesthesia methods, doses and concentrations, identification, prevention and treatment of toxic reactions.

5. Spinal anesthesia: physiological effects and clinical application of arachnoid and epidural anesthesia, prevention and treatment of anesthesia accidents and post-anesthesia complications.

6. Observation of various physiological parameters during anesthesia and nursing during recovery after anesthesia.

[Self-study content]

1. Staging of ether inhalation anesthesia. Specific operation and precautions of ether open drip anesthesia. Endotracheal anesthesia.

2. Local anesthesia for brachial plexus block, intercostal nerve block, cervical plexus block.

3. Anatomy and physiology of spinal canal. Operation method of spinal anesthesia b.

4. Controlled hypotension and systemic hypothermia.

[Key and difficult points]

The concept of general anesthesia. Clinical pharmacology and clinical application of commonly used inhaled anesthetics. Clinical pharmacology and clinical application of intravenous anesthetics. Muscle relaxants in anesthesia. Accidents of general anesthesia and prevention and treatment of complications. Various commonly used local anesthesia methods, doses and concentrations, identification, prevention and treatment of toxic reactions. Physiological effects and clinical application of arachnoid and epidural anesthesia, prevention and treatment of anesthesia accidents and post-anesthesia complications.

第七章 疼痛治疗

【目标要求】

1. 熟悉疼痛治疗的常用方法。

2. 了解疼痛的生理及止痛门诊工作性质。

【教学内容】

疼痛治疗的概论，疼痛的生理。疼痛治疗的常用方法。

【重点难点】

疼痛治疗的常用方法。

Chapter VII Pain management

[Target requirements]

1. Be familiar with common methods of pain management.

2. Understand the physiology of pain and the nature of analgesic clinic work.

[Teaching content]

Introduction to pain treatment, physiology of pain. A common approach to pain treatment.

[Key and difficult points]

A common approach to pain treatment.

第八章 重症监测治疗与复苏

【目标要求】

- 1.掌握心跳呼吸停止的及时确诊。掌握口对口人工呼吸法及胸外心脏按压法。
- 2.熟悉人工呼吸及心脏按压的原理。
- 3.了解外科危重症监测的适应证及所进行的监测方法。
- 4.了解复苏的概念及其社会意义。
- 5.了解心肺复苏的给药种类、途径和剂量，了解心肺复苏后的处理原则。
- 6.了解脑复苏的意义及处理原则。

【教学内容】

复苏的概念。人工呼吸的原理，各种人工呼吸法。呼吸器的应用。心脏按压的原理，胸外心脏按压法。胸内心脏按压法。药物除颤和电除颤的原则。脑复苏的意义及处理原则。心肺复苏的辅助治疗，心肺复苏后的处理原则。

【自学内容】

外科危重症监测的适应证、方法。重症监测病房的种类和设施。

【重点难点】

心肺复苏的原理和操作技术。

Chapter VIII Critical care medicine and resuscitation

[Target requirements]

1. Master the timely diagnosis of cardiorespiratory arrest. Master mouth-to-mouth artificial respiration and chest compressions.
2. Be familiar with the principles of artificial respiration and cardiac compression.
3. Understand the indications of surgical critical care monitoring and the monitoring methods performed.
4. Understand the concept of resuscitation and its social significance.
5. Understand the type, route and dose of cardiopulmonary resuscitation (CPR), and understand the management principles after CPR.
6. Understand the significance and management principles of cerebral resuscitation.

[Teaching content]

The concept of resuscitation. Principle of artificial respiration, various artificial respiration methods. Use of respirators. Principle of cardiac compression, chest compressions. Intrathoracic cardiac compression. Principles of pharmacological and electrical defibrillation. Significance and management principles of cerebral resuscitation. Adjuvant therapy of cardiopulmonary resuscitation, management principles after cardiopulmonary resuscitation.

[Self-study content]

Indications and methods of surgical critical care monitoring. Types and facilities of intensive care units.

[Key and difficult points]

Principles and operating techniques of cardiopulmonary resuscitation.

第九章 围手术期处理

【目标要求】

1. 熟悉手术前准备和手术后的一般护理、观察和处理。
2. 熟悉手术后常见并发症的预防和治疗。

【教学内容】

1. 手术前准备：外科手术的大致分类，病人对手术耐受力的分类，一般准备，对耐受力不良病人的特殊准备。
2. 手术后的处理：一般护理、卧位、活动和起床、饮食和输液、缝线的拆除和切口愈合的记录、引流物的处理、各种不适的处理。
3. 手术后并发症的处理。

【重点难点】

手术前准备和手术后的一般护理、观察和处理。手术后常见并发症的预防和治疗。

Chapter IX Perioperative Management

[Target requirements]

1. Be familiar with preoperative preparation and general care, observation and management after surgery.
2. Be familiar with the prevention and treatment of common postoperative complications.

[Teaching content]

1. Preoperative preparation: general classification of surgery, classification of patients' tolerance to surgery, general preparation, special preparation of patients with poor tolerance.
2. Postoperative treatment: general nursing, recumbency, activities and getting up, diet and infusion, suture removal and incision healing records, treatment of drainage materials and treatment of various discomforts.
3. Management of postoperative complications.

[Key and difficult points]

Preoperative preparation and general care, observation, and handling after surgery. Prevention and treatment of common postoperative complications.

第十章 外科病人的代谢及营养治疗

【目标要求】

1. 熟悉外科病人补充营养的方法。
2. 了解手术对人体代谢的影响及病人营养状况的判定。
3. 了解外科病人的营养需要。

【教学内容】

人体的热量和营养需要。禁食、创伤、手术或感染所致的人体代谢改变和随之而产生的营养问题。补充营养的途径、方法和所用营养的种类和组成。

【重点难点】

外科病人补充营养的途径、方法和所用营养的种类和组成。

Chapter X Metabolic and Nutritional Therapy for Surgical Patients

[Target requirements]

1. Be familiar with the methods of nutritional supplementation for surgical patients.
2. Understand the effect of surgery on human metabolism and the determination of nutritional status of patients.
3. Understand the nutritional needs of surgical patients.

[Teaching content]

Caloric and nutritional needs of the human body. Changes in human metabolism due to fasting, trauma, surgery, or infection and consequent nutritional problems. Routes and methods of nutritional supplementation and types and composition of nutrients used.

[Key and difficult points]

Routes and methods of nutritional supplementation for surgical patients and the types and composition of nutrients used.

第十一章 外科感染

【目标要求】

1. 掌握疖、痈、蜂窝织炎、丹毒、急性淋巴管炎和急性淋巴结炎、脓肿、甲沟炎和脓性指头炎的诊断要点以及治疗方法。
2. 熟悉外科感染的发生、发展和防治原则。
3. 熟悉败血症和脓血症的诊断和治疗原则。
4. 熟悉破伤风的临床表现、预防和治疗。
5. 熟悉抗菌药物在外科感染中的应用。
6. 了解新生儿皮下坏疽的病因、临床表现及治疗。
7. 了解急性化脓性腱鞘炎和手掌深部间隙感染的病因、临床表现和治疗。
8. 了解气性坏疽的诊断和鉴别诊断、临床表现、预防和治疗。

【教学内容】

1. 外科感染的发生、发展和防治原则。
2. 疖、痈、急性蜂窝织炎、丹毒、急性淋巴管炎和急性淋巴结炎、脓肿、甲沟炎和化脓性指头炎的诊断和处理。
3. 败血症、脓血症的临床表现、诊断、预防和治疗。
4. 破伤风的病因、临床表现、诊断和防治。
5. 抗菌药物的合理使用。

【自学内容】

1. 新生儿皮下坏疽的诊断及处理。
2. 急性化脓性腱鞘炎和手掌深部间隙感染的诊断和处理。
3. 气性坏疽的诊断、预防和治疗。

【见习内容】

脓肿的切开引流术。

【重点难点】

疔、痈、急性蜂窝织炎、丹毒、急性淋巴管炎和急性淋巴结炎、脓肿、甲沟炎和化脓性指头炎的诊断和处理。败血症、脓血症的临床表现、诊断、预防和治疗。破伤风的病因、临床表现、诊断和防治。

Chapter XI Surgical Infection

[Target requirements]

1. Master the diagnosis and treatment of furuncle, carbuncle, cellulitis, erysipelas, acute lymphangitis and acute lymphadenitis, abscess, paronychia and dactylitis.
2. Be familiar with the occurrence, development, prevention and treatment principles of surgical infection.
3. Be familiar with the diagnosis and treatment principles of sepsis and sepsis.
4. Be familiar with the clinical manifestations, prevention and treatment of tetanus.
5. Be familiar with the use of antibacterial drugs in surgical infections.
6. Understand the etiology, clinical manifestations and treatment of neonatal subcutaneous gangrene.
7. Understand the etiology, clinical presentation, and treatment of acute suppurative tenosynovitis and deep palmar space infection.
8. Understand the diagnosis and differential diagnosis, clinical presentation, prevention and treatment of gas gangrene.

[Teaching content]

1. Occurrence, development, prevention and treatment of surgical infection.
2. Diagnosis and management of furuncles, carbuncles, acute cellulitis, erysipelas, acute lymphangitis and acute lymphadenitis, abscesses, paronychia and suppurative dactylitis.
3. Clinical manifestations, diagnosis, prevention and treatment of sepsis and sepsis.
4. Etiology, clinical manifestations, diagnosis, prevention and treatment of tetanus.
5. Rational use of antibacterial drugs.

[Self-study content]

1. Diagnosis and management of neonatal subcutaneous gangrene.
2. Diagnosis and management of acute suppurative tenosynovitis and deep palmar space infection.
3. Diagnosis, prevention and treatment of gas gangrene.

[Content of probation] Incision and drainage of abscess.

[Key and difficult points]

Diagnosis and management of furuncles, carbuncles, acute cellulitis, erysipelas, acute lymphangitis and

acute lymphadenitis, abscesses, paronychia and suppurative dactylitis. Clinical manifestations, diagnosis, prevention and treatment of sepsis and sepsis. Etiology, clinical manifestations, diagnosis, prevention and treatment of tetanus.

第十二章 创伤

【目标要求】

1. 掌握浅部伤口的清创术和换药方法。
2. 掌握战伤现场的急救方法。
3. 熟悉创伤的病因、分类和病理生理。
4. 熟悉创伤的临床表现、并发症、检查诊断方法、急救和治疗。
5. 了解战伤救治工作的特点。
6. 了解火器伤和冲击伤的特点和处理原则。
7. 了解核武器损伤和化学毒剂损伤的防护方法。

【教学内容】

各类致伤因子的作用原理和创伤分类。创伤后人体的局部反应和全身病理生理变化及创伤修复。创伤临床表现、并发症、检查诊断方法和急救治疗原则。战伤现场的急救处理。

【自学内容】

清创术和换药、拆线、包扎、固定等。

【重点难点】

浅部伤口的清创术和换药方法。创伤的临床表现、并发症、检查诊断方法、急救和治疗。

Chapter XII Trauma

[Target requirements]

1. Master the debridement and dressing change methods of superficial wounds.
2. Master the first aid methods at the scene of war wound.
3. Be familiar with the etiology, classification and pathophysiology of trauma.
4. Be familiar with the clinical manifestations, complications, examination and diagnosis methods, first aid and treatment of trauma.
5. Understand the characteristics of war wound treatment.
6. Understand the characteristics and treatment principles of firearm and impact injuries.
7. Understand protection methods for nuclear weapon damage and chemical agent damage.

[Teaching content]

The action principle and trauma classification of various injury factors. Local reactions and systemic pathophysiological changes in the human body after trauma and wound repair. Clinical manifestations, complications, examination and diagnosis methods and emergency treatment principles of trauma. First aid at the scene of a war wound.

[Self-study content]

Debridement and dressing change, suture removal, bandaging and fixation.

[Key and difficult points]

Debridement and dressing methods for superficial wounds. Clinical manifestations, complications, examination and diagnosis methods, first aid and treatment of trauma.

第十三章 烧伤、冻伤、蛇咬伤、犬咬伤、虫蜇伤

【目标要求】

1. 掌握烧伤创面初期处理和补液方法。
2. 熟悉烧伤的病理生理和病程演变。
3. 熟悉烧伤的诊断方法和治疗原则。
4. 了解电烧伤，化学烧伤的特点和急救处理。
5. 了解冷伤的病理、临床表现和诊断、急救处理和预防。

【教学内容】

热烧伤的病理生理，热烧伤深度的识别及面积的计算，热烧伤深度和面积对机体的影响，中度以上烧伤的全身性反应和并发症，创面处理和并发症的防治。

【自学内容】

1. 电烧伤的病理、临床表现、诊断、治疗原则和急救处理。
2. 强酸、强碱和磷烧伤的病理、临床表现和急救处理。
3. 冷伤的病因、病理、临床表现、急救处理的预防方法。

【见习内容】

烧伤创面的清创、暴露疗法、包扎疗法和去痂植皮。

【重点难点】

热烧伤深度的识别及面积的计算，热烧伤深度和面积对机体的影响，中度以上烧伤的全身性反应和并发症，创面处理和并发症的防治。

Chapter XIII Burns, Cold injuries, Snake bite, Dog bite, Insect stings

[Target requirements]

1. Master the initial treatment and fluid replacement methods of burn wounds.
2. Be familiar with the pathophysiology and evolution of the burn.
3. Be familiar with the diagnostic methods and treatment principles of burns.
4. To understand the characteristics and emergency treatment of electrical burn and chemical burn.
5. To understand the pathology, clinical manifestations and diagnosis, emergency treatment and prevention of cold injuries.

[Teaching content]

Pathophysiology of thermal burn, identification of thermal burn depth and calculation of area, effect of thermal burn depth and area on the body, systemic reactions and complications of moderate or more burns, wound treatment and prevention and treatment of complications.

[Self-study content]

1. Pathology, clinical manifestations, diagnosis, treatment principles and emergency treatment of electrical burns.

2. Pathology, clinical presentation and emergency management of strong acid, strong base and phosphorus burns.

3. Etiology, pathology, clinical manifestations of cold injury, and preventive methods for emergency treatment.

[Content of probation]

Debridement, exposure therapy, bandaging therapy and desquamation and skin grafting of burn wounds.

[Key and difficult points]

Recognition of thermal burn depth and calculation of area, effect of thermal burn depth and area on the body, systemic reactions and complications of moderate or severe burns, wound treatment and prevention and treatment of complications.

第十四章 肿瘤

【目标要求】

1. 掌握常见的体表良性肿瘤的诊断和治疗。
2. 熟悉肿瘤的分类，良性肿瘤与恶性肿瘤的临床病理特点。
3. 熟悉恶性肿瘤的检查诊断步骤、预防和治疗原则。
4. 了解肿瘤的病因。

【教学内容】

1. 肿瘤的分类和命名，肿瘤的致病因素和病因学说。良性肿瘤和恶性肿瘤的生长发展、临床表现和预后。恶性肿瘤的检查诊断步骤、方法、分期以及综合治疗原则。
2. 常见的体表良性肿瘤的诊断和鉴别诊断、治疗方法。

【见习内容】

临床病例体表良性肿瘤切除、肿瘤活体组织检查。

【重点难点】

肿瘤的分类和命名，良性肿瘤和恶性肿瘤的生长发展、临床表现和预后。恶性肿瘤的检查诊断步骤、方法、分期以及综合治疗原则。

Chapter XIV Tumor

[Target requirements]

1. Master the diagnosis and treatment of common surface benign tumors.
2. Be familiar with the classification of tumors and the clinicopathological features of benign and malignant tumors.
3. Be familiar with the examination and diagnosis steps, prevention and treatment principles of malignant tumors.
4. Understand the etiology of the tumor.

[Teaching content]

1. Classification and nomenclature of tumors, pathogenic factors and etiological theory of tumors. Growth development, clinical presentation and prognosis of benign and malignant tumors. Examination and diagnosis steps, methods, staging and comprehensive treatment principles of malignant tumors.

2. Diagnosis, differential diagnosis and treatment of common surface benign tumors.

[Content of probation]

Resection of benign tumors on the body surface and tumor biopsy in clinical cases.

[Key and difficult points]

Classification and nomenclature of tumors, growth and development, clinical manifestations, and prognosis of benign and malignant tumors. Examination and diagnosis steps, methods, staging and comprehensive treatment principles of malignant tumors.

第十五章 器官、组织和细胞移植

【目标要求】

1. 熟悉器官移植分类和概念。
2. 熟悉同种异体器官移植种类和方法、急性排斥反应的防治。
3. 了解细胞移植和组织移植。
4. 了解供、受者的选择及供移植用脏器的保存。

【教学内容】

器官移植的概况、分类和概念。细胞移植和组织移植的临床应用。临床上应用的各种同种异体器官移植的种类、方法、排斥反应。

【重点难点】

细胞移植和组织移植的临床应用。临床上应用的各种同种异体器官移植的种类、方法、排斥反应。

Chapter XV Organ, tissue and cell transplantation

[Target requirements]

1. Be familiar with organ transplantation classification and concept.
2. Be familiar with the types and methods of allogeneic organ transplantation, and the prevention and treatment of acute rejection.
3. Understand cell transplantation and tissue transplantation.
4. Understand the selection of donors and recipients and the preservation of organs for transplantation.

[Teaching content]

Overview, classification and concept of organ transplantation. Clinical application of cell transplantation and tissue transplantation. Types, methods and rejection of various allogeneic organ transplants applied in clinical practice.

[Key and difficult points]

Clinical application of cell transplantation and tissue transplantation. Types, methods and rejection of various allogeneic organ transplants applied in clinical practice.

第十六章 外科微创技术

【目标要求】

1. 了解微创外科的概况和工作范围。
2. 了解微创的新进展。

【教学内容】

微创外科概况，在临床各科的应用范围。微创外科的新进展及手术演示。

【重点难点】

微创手术的优点。

Chapter XVI Minimally Invasive Surgery

[Target requirements]

1. Understand the general situation and scope of work of minimally invasive surgery.
2. Understand new advances in minimally invasive surgery.

[Teaching content]

Overview of minimally invasive surgery, the scope of application in various clinical departments. New progress and surgical demonstration of minimally invasive surgery.

[Key and difficult points]

Advantages of minimally invasive surgery.

第十七章 复习 Review

实验部分

- 项目一 无菌术
- 项目二 手术基本操作
- 项目三 离体肠吻合
- 项目四 清创术
- 项目五 静脉切开、阑尾切除术
- 项目六 小肠切除，吻合，脾切除
- 项目七 换药
- 项目八 创伤的包扎与固定

Surgical Experiment

- Section 1 Asepsis
- Section 2 Basic surgical operation
- Section 3 Isolated bowel anastomosis
- Section 4 Debridement
- Section 5 Phlebotomy、Appendectomy
- Section 6 Small intestine resection and anastomosis、Splenectomy
- Section 7 Dressing change
- Section 8 Wound dressing and fixation

Section	Teaching Contents	Hours
1	绪论 Overview	4
	无菌术 Asepsis	
	水、电解质代谢紊乱和酸碱平衡失调 Disorders of water and electrolyte metabolism and acid-base balance	
2	输血 Blood transfusion	4
	外科休克 Surgical shock	
3	麻醉 Anaesthesia	4
	疼痛治疗 Pain management	
4	重症监测治疗与复苏 Critical care medicine and resuscitation	4
	围手术期处理 Perioperative management	
5	外科病人的代谢及营养治疗 Metabolic and nutritional therapy of surgical patients	4
	外科感染 Surgical infection	
6	创伤 Trauma	4
	烧伤、冻伤、蛇咬伤、犬咬伤、虫蜇伤 Burns, Cold injuries, Snake bite, Dog bite, Insect stings	
7	肿瘤 Tumour	4
	器官、组织和细胞移植 Organ, tissue and cell transplantation	
8	外科微创技术 Minimally Invasive Surgery	4
	复习答疑 Review	
外科实验 Surgical Experiment		
9	无菌术 Asepsis	4
10	手术基本操作 Basic surgical operation	4
11	离体肠吻合 Isolated bowel anastomosis	4
12	清创术 Debridement	4
13	静脉切开、阑尾切除术 Phlebotomy、Appendectomy	4
14	小肠切除，吻合，脾切除 Small intestine resection and anastomosis、Splenectomy	4
15	换药 Dressing change	4

16	创伤的包扎与固定 Wound dressing and fixation	4
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教材及其它参考资料 Textbook and Supplementary Readings

教材 Textbook:

1. 陈孝平等主编《外科学》第九版 人民卫生出版社 2018年9月
2. 姜海平等《外科学总论实验指导》广州 广东科技出版社 2007年

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。