



General Health

Fakultät Angewandte Gesundheitswissenschaften

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 ENGLISH COMPETENCE AND RESEARCH TRAINING FOR HEALTH PROFESSIONALS

Responsible for the module	Dr. Kathrin Steinbeißer
Course level	Undergraduate
SWS	4
ECTS	5
Exam types	Written exam
Teaching/learning language	English

Content

Learning Objectives

This course will improve your ability to read and critically appraise scientific articles from a variety of sources, as well as improve your understanding of basic terminology and technical language used in such research documents. It will introduce you to health topics and how you, as a health professional, can apply this knowledge to an individual patient's or client's health concerns or to the public health sphere as a whole. You will gain knowledge in two main areas:

1. Research Skills

- You will be able to discuss the principles of different study designs and the scientific research process
- You will be able to find relevant literature
- You will be able to critically assess the quality of scientific literature

2. English Competence

- You will improve your English vocabulary for discussing different health topics
- You will be able to describe and compare different evidence-based methods and treatment approaches related to your patient's or client's care
- You will be able to critically discuss the pros and cons of using various evidence-based methods in a health care setting

Outline:

1. Getting to know different health care systems
2. Studying the principles of evidence-based practice
3. Searching and appraising literature
4. Physical health and the way towards it
5. Challenges of an aging society
6. Successful pain assessment and management



7. Health promotion for long-lasting health

Detailed Content:

Chapter 1 introduces you to the most common health care system models. It also gives you background information in order to help you understand the content of this course.

In chapters 2 and 3, the focus lies on research skills training. These chapters give you insight into the essentials of evidence-based practice and how to search and critically assess the quality of scientific literature.

Chapters 4 through 7 have similar structures. Each chapter has its own health and research topic. It starts with a case study which introduces you to the topic and the chapter's learning objectives. After that, two different scientific articles or documents are presented. Those ones serve as the basis for the upcoming research skills and English competence training.

Target Group

This course is designed for students from different health fields (e.g. nursing science, physical therapy, health science) who want to broaden their knowledge of research skills and improve their use for selected health topics.

Course Prerequisites

Before you start the course, you need to know how to access a full text article from a common scientific database (e.g. CINAHL). Also, you should have basic knowledge of descriptive statistics and the main study designs and methods used in the health care sector (e.g. systematic review).

It is important to emphasize that this course is not an English class that focuses on teaching vocabulary or reviewing grammar. To ensure successful participation and good results, a Common European Framework of Reference for Languages (CEFR) level of B2 in English, or at least four years of English lessons, are highly recommended. Nonetheless, you will learn new vocabulary during this course in order to improve your English skills.

Assistance

To ensure your success in this course, there are many ways to receive help. A regular live tutorial allows you to ask questions regarding the different chapters. In addition, different forums give you the chance to ask questions, receive important announcements, and learn more about current news in the health care sector.



Difficulty:

Experts, experienced

Previous knowledge required:

- Englisch B2 level
- Basic knowledge in scientific research
- Basic knowledge in statistics



 ETHICAL CONSIDERATIONS IN HEALTH CARE

Responsible for the module	Anna Schindler
Course level	Undergraduate
SWS	5
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Exam types	Written exam
Teaching/learning language	English

Qualification goals of the module

In this module, students learn to deal with the normative foundations and application situations of ethically based decisions in nursing care. On the basis of an understanding of professional ethics, they learn to understand the significance of human rights, in particular rights of self-determination and participation, and codes of ethics. Based on this, they are able to analyze given patterns of argumentation and structure independent justifications in order to be able to judge positions as justified in interdisciplinary communication.

Professional competence

Students will...

- define the significance of human rights and fundamental rights for nursing activities.
- distinguish self-determination and participation rights from other rights.
- analyze codes of professional ethics.
- define ethical argumentation patterns in the evaluation of everyday and difficult nursing decisions.
- deal with the functioning of ethical argumentation in the use of technical assistance systems.

Methodological competence:

Students will...

- analyze dilemma situations in nursing decisions by means of selected action schemes.



- evaluate their applicability for the respective care concept.
- practice in simulated situations communication-oriented and participation-oriented forms of communication (ethics consultation) with people to be cared for, their caregivers, with colleagues of their own as well as with other groups of the health care professions.
- analyze, reflect and evaluate communication, interaction and counseling processes from an ethical point of view
- analyze and reflect on professional ethical values and attitudes in a scientifically justified manner
- make well-founded ethical decisions in moral conflict and dilemma situations, taking into account human rights as well as nursing ethical approaches, and promote professional ethical action in nursing practice

Personal competence

Students will...

- reflect on the connection between their own ethical conflicts and the experience of stressful, critical life situations (moral distress).
- recognize the importance of their own argumentative stringency in interdisciplinary dialogue.
- reflect on their own specific role in differentiation to other health professions.

Content

1. human and fundamental rights
2. self-determination and participation rights
3. codes of ethics
4. basics of ethical argumentation
5. case analyses and dilemma decisions
6. everyday ethical issues in nursing care
7. ethical borderline questions at the beginning and end of life
8. functioning of ethics consultation

Teaching and learning methods

Seminar, seminar-based teaching, exercise

Recommended reading list



Basic literature references will be provided during the course.



 PSYCHOLOGICAL AND SOCIOLOGICAL PERSPECTIVES FOR HEALTH SCIENCES

Responsible for the module	Prof. Dr. Karsten Gensheimer
Course level	Undergraduate
SWS	5
ECTS	5
Workload	Attendance time: 75 hours Self-study: 75 hours Total: 150 hours
Exam types	Paper
Teaching/learning language	English

Qualification goals of the module

Professional competence

The students...

- know and understand the central health psychological and social scientific theories and concepts that enable them to understand the life worlds and circumstances of the people to be cared for and to responsibly plan, organize, design and implement the appropriate care.
- know the diverse epistemologies and perspectives through which we can understand social worlds and processes, to which they can refer when planning and evaluating interventions of health promotion and prevention in different life worlds.
- know and understand the different approaches to the self and identity development, and thus can support a heterogeneous population in need of care in the development of a self-determined healthy life.
- know and understand the concept of health literacy, and can integrate and apply it to care planning and health counseling and information for people of all ages and circumstances.
- deepen their knowledge of, and practical skills in qualitative research methods.

Methodological competence

Students...

- are able to understand and assess the diverse lifeworlds and circumstances of the people they work with, and to plan, organize, design and implement care appropriately.
- are able to understand people as unique individuals whose ability to act is also influenced and limited by life worlds and social and interpersonal relationships. This enables them to



develop largely appropriate nursing and health problem solutions, and to support people of all ages and backgrounds in the development of a healthy and autonomous life.

- are able to plan ethically sound qualitative studies and collect and process qualitative data.
- conceptualize, design, reflect and evaluate counseling and training concepts on the basis of validated research results (state written examination according to PflAPrV: §35 Abs. 2 Nr. 3 in connection with appendix 5 II., Nr. 3).
- analyze, reflect and critically evaluate communication, interaction and counseling processes in nursing practice on the basis of nursing and reference science methods (state written examination according to PflAPrV: §35 Para. 2 No. 4 in conjunction with Appendix 5 II., No. 2.).

Personal competencies

Students...

- are able to develop and communicate scientifically sound and practice-relevant arguments.
- are able to reflect on and contribute their own person, experiences, values and attitudes.

Content

- theories and models of the complex interrelationships between society(ies), culture(s) and health.
- epistemologies and perspectives of the social sciences - e.g., social constructionism; systems theory; etc.
- society and the individual approaches to self/identity and social processes of normalization.
- concepts and theories of health literacy and psychology
- qualitative research methods (in-depth)

Teaching and learning methods

Seminars, lectures, exercises

Recommended reading list

Basic literature references will be provided during the course.



 HEALTH PROMOTION, ACTIVITY & REST, NUTRITION, ELIMINATION/EXCHANGE

Responsible for the module	Prof. Dr. Christian Rester
Lecturers	Prof. Dr. Christian Rester Anna Schindler
Course level	Undergraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Prüfungsarten	Written exam, 120 min.
Teaching/learning language	English

Qualification objectives of the module

Overall objectives of the module

Students acquire a broad foundation in the competence field of nursing domains. To this end, they acquire current approaches, theories and basic empirical findings. Students acquire the skills to relate these basic principles to the objectives of nursing care. They understand nursing care as a concern for people of all ages and situations in life with the aims of promoting health and restoring health, preventing illness, alleviating suffering and enabling a dignified death. Students have a fundamental understanding of the characteristics of health promotion diagnoses and health-related challenges.

Professional competence

The students...

- can describe a coherent picture of health taking into account basic biopsychosocial influencing factors and can relate this understanding to the internationally recognized goals of nursing.
- compare different science-based approaches to health and can fundamentally define health promotion and disease prevention and problematize them in the context of selected health risk factors.
- describe physiological principles of organ systems as well as anatomical principles of the musculoskeletal system, particularly in relation to sleep and rest, cardiovascular reactions,



activity, energy and self-care as well as ingestion, digestion, metabolism and hydration and functions in relation to the integument.

- describe the biophysical and biochemical fundamentals of humans.
- understand basic elements of the phenomena of physical inactivity and obesity.

Methodological competence

Die Studierenden...

The students...

- recognize and diagnose potentials of health promotion
- recognize basic forms of potential risks and health hazards.
- recognize the most important clinical expressions of exercise and nutrition-related health literacy.
- recognize the most important clinical expressions of nursing diagnoses of movement and rest, nutrition and elimination.
- master the most important clinical assessments for movement and rest, nutrition and elimination as well as the basics of determining vital critical situations.
- develop care goals together with the person in need of care on the basis of clinical findings, taking external evidence into account.
- are able to design the basis for health-promoting interventions and can develop science-based interventions for selected risk factors.
- are able to make initial approaches to coordinating care in care contexts (hospital, outpatient care and acute inpatient care).
- are proficient in the basics of developing case-based evaluation criteria and can derive these from nursing diagnostic principles and develop them in relation to specific cases.
- assess the individual care needs for specific care diagnoses taught in this module, their potential risk factors and health hazards in acute and long-term care situations and use specific scientific assessment procedures
- promote the development and autonomy of the people requiring care
- support the people requiring care with activities of daily living
- reflect on care processes on the basis of the research results from nursing care taught in this module as well as research results from related sciences planen, organisieren,
- gestalten und führen Pflegeprozesse zu spezifischen in diesem Modul vermittelten Pflegediagnosen unter Berücksichtigung wissenschaftlicher Grundlage durch;



- plan, organize, design, control and implement care processes for complex and highly complex care needs, specific client groups in care situations with special health problems and in highly stressful and critical life situations on the basis of scientific theories, models and research results
- promote development and autonomy in the lifespan and support people of all age groups in shaping their lives on the basis of nursing and care science methods and research findings
- justify orders and measures of diagnostics, therapy or rehabilitation, taking into account in-depth research-based knowledge
- carry out medical orders and diagnostic, therapeutic or rehabilitation measures independently and in accordance with the legal provisions, taking into account in-depth research-based knowledge

Personal competence

The students...

- recognize the importance of their own person in the process of making a nursing diagnosis.
- recognize knowledge deficits and independently acquire new information on the knowledge areas of nursing, health promotion and anatomical-physiological basics on the domains of nursing movement and rest, nutrition and excretion as well as health management and health awareness.
- reflect on their limitations in designing training, advice, instruction and information services and reflect on the importance of interprofessional cooperation.

Content

- Introduction to the nursing process
- Nursing diagnostics method
- Transcription and coding methods of nursing diagnostics
- Assessments and their quality criteria
- Health promotion diagnoses
- Health awareness
- Health literacy
- Health management
- Pharmacy



Teaching and learning methods

Lecture, seminar, exercise, skills and scenario training

Recommended literature

Basic literature references will be provided during the course.



 INTERDISZIPLINÄRE SCHMERZENMANAGEMENT

Responsible for the module	Daniel Schümann
Course level	Undergraduate
SWS	3
ECTS	5
Workload	Attendance time: 100 hours Self-study: 50 hours Total: 150 hours
Exam types	Oral exam
Teaching/learning language	Englisch

Qualification goals of the module

This module lays the foundations for reflecting on and justifying one's own actions on the basis of scientific findings. Students acquire an understanding of pain as a transdisciplinary phenomenon.

In this module, students will expand their own professional competence and learn how to care for all acute and chronic pain patients.

Participants should be enabled to inform, train and advise pain patients and their relatives (patient education) while maintaining autonomy in order to lead people affected by pain from the role of patient to the role of expert in their own health.

Professional competence

The students...

- understand the anatomy and physiology of pain.
- differentiate between different types of pain and explain their significance for practice.
- know assessment methods according to current scientific knowledge.
- know the basic principles of multimodal pain therapy.
- describe interdisciplinary cooperation between professions across care settings.
- understand the areas of application and characteristics of concepts, models and theories of pain management and therapy.



- understand the difference between acute and chronic pain and recognize the respective characteristics.
- acquire basic knowledge of therapy concepts.

Methodological competence

The students...

- analyze different forms of pain based on criteria and derive evidence-based therapy concepts
- understand basic scientific principles.
- master the use of the most important assessment instruments.
- analyze cases in an interdisciplinary team.

Personal Competencies

The students...

- recognize the importance of inter- and transdisciplinarity for pain therapy.
- critically examine the relationship between theory and practice and derive consequences for their own practice.

Applicability in this and other degree programs

In health and therapy degree programs

Content

- Basics - anatomy, physiology + pathophysiology of pain
- Types of pain
- Pain assessment and documentation in chronic pain patients, planning and coordination skills, Training and counseling of patients and relatives
- Medication-based pain therapy: Non-opioids, opioids, adjuvants, for tumor and non-tumor-related pain; Basic therapeutic principles; Side effect management
- Acute pain therapy: Pain assessment and documentation for acute pain; Organization of an acute pain service; Monitoring; Regional anesthesia procedures; External medication pumps, PCA; Workshop: pump demonstration
- Invasive pain therapy: Blockade techniques; Neurostimulation procedures; Implantable drug pumps and ports; Emergency treatment of incidents during pain therapy interventions
- Psychological aspects of pain: The bio-psycho-social model of pain; Processing levels of pain; Somatoform pain disorder, somatization disorder; Comorbidity: anxiety, depression, addiction; Psychological/psychotherapeutic therapy methods



- Multimodal therapy concept
- Non-drug therapy methods: Physical measures and rehabilitation; Naturopathic procedures (NHV)
- Acute and chronic non-tumor-related pain syndromes: Headache, facial pain; back pain; Fibromyalgia syndrome; Neuropathic pain; Zoster neuralgia; Stump and phantom pain; Complex regional pain syndrome (CRPS)
- Pain management in the elderly and people with dementia
- Pain management for children and adolescents
- Tumor pain: Specific features of drug therapy; Symptom control; Palliative medicine
- Organizational forms of pain therapy

Teaching and learning methods

Lecture, class discussion, discussions, transfer and exercise tasks, text work, simulation in the skills lab

Recommended reading list

follow currently to the module start



 INTERCULTURAL ASPECTS OF MENTAL HEALTH

Responsible for the module	Prof. Dr. Agnes Nocon
Lecturers	Prof. Dr. NN NN AGW Prof. Dr. Agnes Nocon
Semester	Summer semester
Course level	Postgraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Exam types	Attendance
Teaching/learning language	Englisch

Qualification goals of the module

After completing the module, students know the influence of (sub)culture on psychological well-being, are familiar with theories and models of migration, and reflect on the significance of their own cultural background on their experience and behavior. They have a positive attitude towards working with migrants and have methods of culturally sensitive communication, counseling and public relations with different groups of clients and addressees.

Professional competence:

- Students confidently use the English language at an academic level.
- Students explain selected theories of the role of culture in human development.
- They describe particular culturally shaped mental health syndromes.
- They identify evidence-based culturally sensitive supports and describe their implementation.

Methodological competence:

Students design simple counseling processes in an international context: peer counseling with foreign-language students, role-playing in a foreign language, counseling with the participation of language and cultural mediators.



They apply the technique of cultural shuttling in counseling.

Students apply foreign language skills in working with foreign language students, foreign language faculty, and foreign language clients.

Students obtain feedback regarding cultural specifics of communicating with members of other cultures.

Personal competencies:

Students reflect on their own cultural background and its influence on their experience and behavior in private and work contexts. They have a positive attitude towards working in an intercultural context, especially working with migrants in Germany, and are willing to expand their skills in the field (e.g. learning additional foreign languages, gaining practical experience abroad).

Access or recommended prerequisites

Conversational skills, basic reference science, digitization, English proficiency.

Content

- Development and culture
- Interplay of biology and culture and its significance for the course of human ontogenesis.
- Role of cultural models of autonomy and relationality in the active construction of developmental processes
- Psychopathology and the role of culture
- Mental health in different cultures
- Social reference systems and forms of support in different cultures
- Cultural characteristics of mental syndromes
- Migration and mental health
- Theories of migration
- Resources and burdens of people with migration background
- Flight and mental health
- Cultural competence and cultural awareness
- Culturally sensitive counseling
- Specifics of the working relationship in culturally sensitive counseling
- Intercultural commuting
- Working with language and cultural mediators

- Culturally sensitive online counseling
- Mental health support in multicultural societies
- Epidemiology
- Care structures and care realities
- Evidence-based culturally sensitive forms of support

Teaching and learning methods

Lecture, role plays, case simulations with and without interpreters, case vignettes, case histories, facility visits.

Recommended reading list

Bhugra, D. & Bhui, K. (2018). Textbook of Cultural Psychiatry. Cambridge: Cambridge University Press.

Gardiner, H. W. & Kosmitzki, C. (2013). Lives Across Cultures. Pearson.

Helfrich, H. (2019). Kulturvergleichende Psychologie. Berlin: Springer.

Pomerantz, A. M. (2019). Clinical Psychology: Science, Practice, and Diversity. Sage.



 **DIAGNOSTIC OF MENTAL HEALTH**

Responsible for the module	Prof. Dr. Agnes Nocon
Lecturers	Prof. Dr. NN NN AGW Prof. Dr. Agnes Nocon Birgit Rathwallner
Semester	Summer semester
Course level	Postgraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Exam types	Portfolio
Teaching/learning language	English

Qualification goals of the module

The module Diagnostics enables students to classify and reflect on mental conditions and symptoms against the background of established diagnostic systems. Diagnostic measures and differential diagnostic considerations are familiar to the students and selected methods of diagnostics for the areas of prevention and rehabilitation can be applied. The students are able to interpret psychiatric and psychotherapeutic findings and are able to independently write statements on mental health issues and to refer the affected person to the appropriate specialist colleague if a mental disorder requiring treatment is present.

Professional competence:

- Students name and use established classification systems and describe their significance.
- They describe the application and limitations of diagnostic instruments and strategies.
- The students are familiar with the dimensions and methodological principles of psychopathology and the resulting assessment of findings.
- They are familiar with the concept of differential diagnostics and procedures in this regard.
- The students identify the limits of their own competence.
- Methodological competence



- The students perform anamnesis and psychopathological assessment. In doing so, they draw on their communication skills and apply them appropriately to the situation.
- They use selected diagnostic instruments, evaluate them and interpret the findings appropriately.
- They apply their knowledge in special situations, particularly in an intercultural context, and justify their approach with reference to the current state of scientific evidence.

Personal competencies

Students reflect on their own behavior in communicative situations against the background of setting-specific and occasion-related needs as well as the needs of the counterpart.

Access or recommended prerequisites

Basic reference science, interviewing skills, English language skills, basic statistics.

Content

- Introduction to diagnostics
- Fields of application, questions, goals
- The diagnostic process
- Legal framework and ethical guidelines
- Human images and schools of thought in diagnostics
- Concepts of diagnostics
 - Classification (e.g. OPS, ICD, DSM, NANDA, NIC, NOC, POP, ENP)
 - Diagnostic case understanding
 - Hermeneutic procedures
- Social pedagogical case work
 - Basics of diagnostic procedures
- Psychology: psychological tests, test quality criteria
- Social work: social pedagogical diagnostics, multi-perspective case work, hermeneutic case understanding
- Nursing: nursing diagnostics, hermeneutic case understanding
- Medicine: Relevant somatic diagnostics



- Neuropsychology: Neuropsychological diagnostics
- Selected instruments and procedures
- Psychological diagnostics: performance tests, behavioral observation
 - Social work: basic diagnostics, network diagnostics
- Carrying out a diagnostic examination
- Selection of procedures and examination planning
 - Cooperative process design
 - Collection of findings (anamnesis, psychopathology)
 - Differential diagnostics
 - Implementation and evaluation
 - Opinions and preparation of expert reports

Teaching and learning methods

Lecture, training with and without acting patients, application of test procedures, implementation of diagnostics in cooperation with institutions under supervision, case simulations, case vignettes, casuistics.

Recommended reading list

Buttner, P., Gahleitner, S. B., Hochuli Freund, U., & Röh, D. (2018). Handbuch Soziale Diagnostik: Perspektiven und Konzepte für die Soziale Arbeit. Freiburg: Lambertus.

Schrapper, C. (2004). Sozialpädagogische Diagnostik zwischen Durchblick und Verständigung, in: Heiner, M (Hg.) Diagnostik und Diagnosen in der Sozialen Arbeit. Freiburg: Lambertus.

Schrapper, C. & Ader, S. (2022). Sozialpädagogische Diagnostik und Fallverstehen in der Jugendhilfe. Stuttgart: utb.

Müller, B. (1993). Sozialpädagogisches Können. Freiburg: Lambertus.

Mollenhauer, K. & Uhlendorf, U. (1992). Sozialpädagogische Diagnosen. Weinheim: Juventa.

Schmidt-Atzert, L., Krumm, S., & Amelang, M. (2021). Psychologische Diagnostik. Berlin: Springer.

Stefan, H., Allmer, F, Schalek, K, Eberl, J., Hansmann, R. (2022). POP - PraxisOrientierte Pflegediagnostik Pflegediagnosen, Ziele und Maßnahmen nach der Version POP2. 3.Aufl., Berlin: Springer.



Witeck, P. (2023). ENP-Praxisleitlinien: Pflegediagnosen, Pflegeziele, Pflegemaßnahmen.
4.Aufl., Kassel, Recom.



MICRO-SURGERY BASICS

Responsible for the module	Prof. Dr. Aung
Lecturers	Prof. Dr. Aung
Course level	Undergraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Prüfungsarten	Written exam, 120 min.
Teaching/learning language	English

Overall objectives of the module

The aim of the project is to use and establish the "silent-teacher" ICG (indocyanine green) perfusion rat model in the microsurgery education/training of doctors and medical and PA students. By using this model, rats that have already been used in other research projects ("recycling of animal cadavers") are "recycled" in the microsurgery courses, which massively reduces the constant need for the animals previously required for microsurgical exercises due to the "recycling". We have succeeded in developing an innovative microsurgery training model with which we can avoid most of the disadvantages of synthetic and cadaver models and still meet the requirements of the 3R principle. We were able to demonstrate that an extracorporeal perfusion generator can be used to restore functional circulation in order to create a realistic intraoperative situation. The application turned out to be a method that is easy to implement and equally reproducible. A structured and regular implementation of microsurgical exercises/courses inevitably leads to an increase in the quality of the interventions, which results in a considerable saving of resources in the surgical care of patients (fewer complications, fewer revisions, consequently also shorter hospital stays, greater acceptance by those affected), so that overall the well-being of the patients is also increased. Quality improvement in patient care and economic aspects form a symbiosis here in an ideal-typical manner, which is why the model described creates a so-called "win-win situation".



Content

Microscopic exercises on the 3D silicone model and on the "silent-teacher" ICG (indocyanine green) perfusion rat model:

- Theoretical introduction and history of microsurgery
- Handling microsurgical suture material and instruments under the stereo microscope at a "microsurgical workstation"
- Familiarization with the surgical field under the microscope
- Introductory microsurgical exercises on a 3D silicone vessel model
- Suture and knot technique
- Microsurgical exercises on the ICG perfusion rat model (aorta)
- Microsurgical exercises on the ICG perfusion rat model (vascular preparation of A./V./N. femoralis and A./V. brachialis)

- Use of prostheses on the aorta

Surgery shadowing is possible during the course if interested.

Teaching and learning methods

Lecture, seminar, exercise, skills and scenario training

Recommended literature

Basic literature references will be provided during the course.



MICRO-SURGERY ADVANCED

Responsible for the module	Prof. Dr. Aung
Lecturers	Prof. Dr. Aung
Course level	Undergraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Prüfungsarten	Written exam, 120 min.
Teaching/learning language	English

Overall objectives of the module

The aim of the project is to use the CAM (Chorion-Allantois-Membrane) model in the microsurgical training of medical and PA students and doctors in order to reduce the number of animals (mainly rats) used in these microsurgery courses. In order to gain a better understanding of vascular anatomy, the CAM model will be used to improve students' fine motor skills/precision/safety when handling surgical instruments and to illustrate the fine structures of the vessels. The establishment of an infrastructure that provides the framework conditions for learning, training and further refining these techniques on a realistic model is crucial. A structured and regular implementation of microsurgical exercises/courses not only leads to an increase in quality but also to a saving of resources in the surgical care of patients (fewer complications, fewer revisions, consequently also shorter hospital stays, greater acceptance by those affected). Thus, in addition to the higher quality of patient treatment, economic aspects also contribute to the attractiveness of the model, which benefits all parties involved. For decades, animals have served as a microsurgical training model for the entire spectrum of surgical disciplines. In order to ensure a high level of skill and proficiency on the part of the surgeon and thus the greatest possible safety for the patient, didactically considered, systematic training in microsurgery is absolutely essential. To this end, national/international microsurgery training courses are offered to ensure that microsurgical procedures are of a high quality. The most commonly used animal model is the rat. So far, it has not been possible to substantially reduce the number of animals used in microsurgery courses. The aim of microsurgery



education/training must be to develop a model that both optimally reflects the intraoperative situation of the vessels in the patient and is ethically justifiable. We have established the Chorion-Allantois Membrane (CAM) model as a powerful model for microsurgery education/training for medical students, PAs and physicians of all disciplines who need the microsurgical tools of the trade.

The CAM model we have developed is a powerful model for microsurgical training/education because it has a natural, physiological circulatory system and the vessels are present in all dimensions. During the microsurgical exercises, basic techniques are learned, including suturing techniques, various types of anastomoses, vein and nerve interpositions. Through the functioning blood flow, the quality of the vascular sutures can be assessed at any time. As a result, the CAM model represents an innovative model for microsurgical training/education, which significantly reduces the number of animals previously used for "microsurgery training".

A structured and regular implementation of microsurgical exercises/courses not only leads to an increase in quality, but also to a saving of resources in the surgical care of patients (fewer complications, consequently also shorter hospital stays, higher acceptance among those affected). Thus, in addition to the higher quality of patient treatment, economic aspects also contribute to the attractiveness of the model, which benefits all parties involved.

Content

Microscopic exercises on the 3D in vivo CAM model:

- Various anastomosis techniques - Vascular anastomoses with couplers
- arterial end-to-end anastomoses
- End-to-side anastomoses
- Venous end-to-end anastomoses
- Supramicrosurgical exercises on the ICG perfusion rat model (lymphatic vessels, lymph node transplants)
- Microinjection
- Use of vein and nerve interposition devices
- Lymphatic surgery
- Microsurgery / supramicrosurgery

Surgery shadowing is possible during the course if interested.

Teaching and learning methods

Lecture, seminar, exercise, skills and scenario training



Access requirements

Participation in “Micro-Surgery Basics”

Recommended literature

Basic literature references will be provided during the course.



 OBESITY MANAGEMENT BASICS

Responsible for the module	Prof. Dr. Aung
Lecturers	Prof. Dr. Aung
Course level	Undergraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Prüfungsarten	Written exam, 120 min.
Teaching/learning language	English

Overall objectives of the module

The aim of this module is to give the Students the theoretical knowledge concerning obesity management. They will learn to identify the markers of obesity, where it comes from and how to treat it. As well as a theoretical overview the students will have a surgical hospitation where thy can experience their acquired knowledge in a practical setting.

Content

- Physiology of Obesity
- Fundamentals of Nutrition and Exercise
- Behavioral Therapy for Weight Management
- Nutritional Management of Obesity
- „Childhood and Adolescent Obesity“
- Interdisciplinary Collaboration in Bariatric Care
- Bariatric Surgery: Techniques and Procedures (hospitation 2-3 OR)

Teaching and learning methods

Lecture, seminar, exercise, skills and scenario training

Recommended literature

Basic literature references will be provided during the course.



 OBESITY MANAGEMENT ADVANCED

Responsible for the module	Prof. Dr. Aung
Lecturers	Prof. Dr. Aung
Course level	Undergraduate
SWS	4
ECTS	5
Workload	Attendance time: 60 hours Self-study: 90 hours Total: 150 hours
Prüfungsarten	Written exam, 120 min.
Teaching/learning language	English

Overall objectives of the module

This module is aimed at students who already have experience in a surgical setting and also have the fundamental knowledge about obesity. The students will get handy on experience in the whole process of obesity management in a surgical context.

Content

- Medical and Surgical Complications in Obesity Management
- Common Body Contouring Procedures
- Consultation with a Plastic Surgeon
- Combining Multiple Procedures (hospitation 1-2 OR)
- Lifestyle Maintenance

Teaching and learning methods

Lecture, seminar, exercise, skills and scenario training

Access requirements

Participation in "Micro-Surgery Basics" or prior knowledge their study program.

Recommended literature

Basic literature references will be provided during the course.

