

Module Manual – Short Version

Degree
Program

PHYSICIAN ASSISTANT



**Berufsakademie Sachsen
Staatliche Studienakademie Plauen**

CONTENTS

PRELIMINARY NOTE.....	3
PART I: COMPULSORY MODULES – MEDICAL FOUNDATIONS.....	4
ANATOMY / PHYSIOLOGY / PATHOLOGY / PATHOPHYSIOLOGY	4
MICROBIOLOGY AND GENERAL HYGIENE	4
INTERNAL MEDICINE.....	4
GENERAL, VISCERAL AND VASCULAR SURGERY	5
SPECIAL SURGERY	5
EMERGENCY MEDICINE.....	5
PHARMACOLOGY / TOXICOLOGY	6
CONSERVATIVE CLINICAL MEDICINE	6
FUNCTIONAL DIAGNOSTICS AND IMAGING METHODS	6
ANESTHESIA AND INTENSIVE CARE.....	7
SURGERY.....	7
PART II: COMPULSORY MODULES – PROCESS AND QUALITY MANAGEMENT	8
FOUNDATIONS OF MEDICAL SCIENCE	8
GUIDELINES / THERAPEUTIC PATHWAYS / SOP.....	8
CASE MANAGEMENT.....	8
DOCUMENTATION / QUALITY MANAGEMENT.....	9
PREVENTION / REHABILITATION.....	9
PART III: COMPULSORY MODULES – SYSTEM EXPERTISE AND METHODOLOGICAL COMPETENCE	10
HEALTH CARE SYSTEM AND FOUNDATIONS OF BUSINESS ADMINISTRATION.....	10
REMUNERATION SYSTEMS E-HEALTH	10
SCIENTIFIC WORK AND SOCIAL COMPETENCIES	11
ETHICS AND LAW IN MEDICINE	11
CLINICAL STUDIES	11
PROJECT MANAGEMENT	12
PART IV: COMPULSORY ELECTIVE MODULES.....	13
HOSPITAL HYGIENE	13
MANAGEMENT OF EMERGENCIES.....	13
OPERATIVE PROFILE	13
ADMINISTRATION OF HEALTHCARE FACILITIES.....	14
OCCUPATIONAL MEDICINE AND PUBLIC HEALTH SYSTEM.....	14
PART V: PRACTICAL MODULES.....	15
WORK ON A REGULAR WARD	15
ELECTIVE PATIENT ADMISSION	15
EMERGENCY DEPARTMENT.....	16
ENDOSKOPY / FUNCTIONAL DIAGNOSTICS	16
SURGERIES.....	17
BACHELOR THESIS	17

PRELIMINARY NOTE

The degree program of Physician Assistant at Staatliche Studienakademie Plauen is oriented towards the professional concept of " Physician Assistant - a new profession in the German health care system", issued by the German Medical Association and the National Association of Statutory Health Insurance Physicians in 2017.¹ It complies with the quality criteria for degree programs specified there². The training follows a generalist approach; a profile building is facilitated through the offered compulsory elective modules and practical phases.

Physician assistants assume tasks within the following scope of activities³:

1. Participation in diagnosing and the development of the treatment plan
2. Participation in complex examinations and the performance of medical-technical activities, unless restricted to special professional groups
3. Participation in the implementation of treatment plans
4. Participation in interventions
5. Participation in emergency treatment
6. Communication and provision of information by using a language that is appropriate to the addressees
7. Assistance with documentation

¹http://www.bundesaerztekammer.de/fileadmin/user_upload/downloads/pdf-Ordner/Fachberufe/Physician_Assistant.pdf

² *ibid.*, p. 21

³ *ibid.*, p. 9

PART I: COMPULSORY MODULES – MEDICAL FOUNDATIONS

ANATOMY / PHYSIOLOGY / PATHOLOGY / PATHOPHYSIOLOGY

Module: APPPY	Anatomy, Physiology, Pathology, Pathophysiology
10 ECTS	Semester: 1
<ul style="list-style-type: none"> • Essential structures and functions of the human body, their physiological roles and functions in a healthy person and their interaction and interplay • Technical jargon • Principles of pathology and significance of endogenous and exogenous factors • Major pathological mechanisms • Significant disturbances of structures and/or functions of basic physiological systems 	

MICROBIOLOGY AND GENERAL HYGIENE

Module: MBHYG	Foundations of Microbiology and General Hygiene
5 ECTS	Semester: 1
<ul style="list-style-type: none"> • Microbiological forms of life and their significance • Microbiome • Hazards and protective effects • Protective measures for the prevention of infections (in particular disinfection and sterilization) • Dealing with infectious material and persons 	

INTERNAL MEDICINE

Module: INMED	Internal Medicine
5 ECTS	Semester: 2
<ul style="list-style-type: none"> • Cardiology and angiology • Pneumology • Hematology / Oncology • Diabetology • Gastroenterology • Nephrology • Infectiology • Rheumatology • Ultrasound course 	

GENERAL, VISCERAL AND VASCULAR SURGERY

Module: ACHIR	General, Visceral and Vascular Surgery	
5 ECTS	Semester: 2	
<ul style="list-style-type: none"> • General surgery • Visceral surgery • Vascular surgery • Thoracic surgery • Wound healing and scars • Pre and postoperative care • Billing of surgical interventions 		

SPECIAL SURGERY

Module: SCHIR	Special Surgery	
5 ECTS	Semester: 2	
<ul style="list-style-type: none"> • Traumatology • Orthopedics • Heart surgery • Neurosurgery • Urology • Gynecology / obstetrics • ENT 		

EMERGENCY MEDICINE

Module: NFMED	Emergency Medicine	
5 ECTS	Semester: 3	
<ul style="list-style-type: none"> • Emergencies and related pathophysiology • Triage • Resuscitation and immediate treatment • Monitoring of patients in intensive care units • Communication strategies in emergency situations 		

PHARMACOLOGY / TOXICOLOGY

Module: PHATO	Pharmacology / Toxicology
5 ECTS	Semester: 3
<ul style="list-style-type: none"> • Pharmaceutical effects • Application and dosage • Side effects and drug interactions • Main groups of active substances and their applications in selected clinical pictures • Clinically relevant toxins, their effects, preventive measures and possible treatments 	

CONSERVATIVE CLINICAL MEDICINE

Module: KL MED	Conservative Clinical Medicine
5 ECTS	Semester: 3
<ul style="list-style-type: none"> • General medicine • Pediatrics • Geriatrics • Ophthalmology • Dermatology • Radiotherapy • Neurology • Psychosomatics, psychiatry 	

FUNCTIONAL DIAGNOSTICS AND IMAGING METHODS

Module: FDBGV	Functional Diagnostics and Imaging Methods
10 ECTS	Semester: 4
<p>Students are familiar with the most important methods of functional diagnostics and their fields of application and limits.</p> <ul style="list-style-type: none"> • Physical foundations and radiation biology • CT scan, MRI, ultrasound of organ areas with clinical references • Cardiovascular diagnostics with ECG • Interventional radiology • EEG, neurography • Allergy tests • Biopsy/rapid incision • Laboratory and transfusion medicine • Thermography • Dialysis • Medical technology 	

ANESTHESIA AND INTENSIVE CARE

Module: ANAES	Anesthesia and Intensive Care
5 ECTS	Semester: 4
<ul style="list-style-type: none"> • Preparation of an anesthesia • Main methods of anesthesia • Transfer of patients to the intensive care unit or regular ward • Postoperative intensive care • Pain therapy 	

SURGERY

Module: OPLEH	Surgery
5 ECTS	Semester: 5
<ul style="list-style-type: none"> • Surgery management • Surgery preparation, planning, organization • Execution of surgeries, post-surgery care, aftercare • Perioperative pharmacology • Perioperative hygiene • Sterilization • Instruments, surgical technology • Selected surgical interventions • Minimally invasive techniques • Outpatient surgery / principles and organization 	

PART II: COMPULSORY MODULES – PROCESS AND QUALITY MANAGEMENT

FOUNDATIONS OF MEDICAL SCIENCE

Module: GLHKD	Foundations of Medical Science, incl. Anamnesis and Clinical Examination
9 ECTS	Semester: 1 - 2
<ul style="list-style-type: none"> • Basic principles, approaches and techniques of diagnostics, therapy and rehabilitation • Preparatory anamnesis and orienting physical examination • Classifying patients according to the degree of urgency and allocating them to a medical field • Communicating results to the attending physician and documenting them professionally • Presenting patients in a correct and systematic manner • Age group, gender and migration specific characteristics, social medicine and epidemiology • Physical principles of physiology and medical technology 	

GUIDELINES / THERAPEUTIC PATHWAYS / SOP

Module: LLSOP	Guidelines / Therapeutic Pathways / SOPs
5 ECTS	Semester: 3
<ul style="list-style-type: none"> • Legal framework for the application of guidelines, therapeutic pathways and Standard Operating Procedures (SOPs) • Translating guidelines and directives into therapy standards and SOPs • Handling of electronic online portals for guideline development and archiving as well as regulations of the <i>Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften</i> (Association of the Scientific Medical Societies) 	

CASE MANAGEMENT

Module: CAMGT	Case Management
5 ECTS	Semester: 4
<ul style="list-style-type: none"> • History, phases and methods of case managements • Network development and maintenance • Interprofessional communication • Assessments, care planning, case monitoring • Special social law • Aids and therapeutic products • Review system • Nursing care guidance • Case studies with roleplays 	

DOCUMENTATION / QUALITY MANAGEMENT

Module: DOKQM	Documentation and Quality Management
5 ECTS	Semester: 5
<ul style="list-style-type: none"> • Elements of a medical documentation • Foundations of quality assurance and quality management (QM), current methods and approaches, important concepts • Problems, decision fields and solution strategies • Quality management and quality assurance systems • Principles of database work • Basic methods of statistical evaluation • Delegable responsibilities of medical QM 	

PREVENTION / REHABILITATION

Module: PRREH	Prevention / Rehabilitation
5 ECTS	Semester: 6
<ul style="list-style-type: none"> • Basic approaches in the fields of prevention and rehabilitation • Adequate consideration of these approaches and references in the context of practical examples • Foundations of health and safety at the workplace and occupational medicine and corporate health management • Structure and tasks of public health care 	

PART III: COMPULSORY MODULES – SYSTEM EXPER- TISE AND METHODOLOGICAL COMPETENCE

HEALTH CARE SYSTEM AND FOUNDATIONS OF BUSINESS ADMINISTRATION

Module: GSBWL	The German Health Care System and Foundations of Business Administration	
4 ECTS	Semester: 1	
<ul style="list-style-type: none"> • Structure of the German health care system • Basic business administration terms • Methods of knowledge production in business administration • Constitutive decision fields of a company • Central business administration problems and decision fields • Approaches and instruments of systematic marketing • Methods of market research • Corporate goals under consideration of internal and external impact factors • Criteria for different legal forms, selection of sites and other constitutive business decisions 		

REMUNERATION SYSTEMS E-HEALTH

Module: VGSEH	Remuneration Systems and E-Health	
Qualification Level: Bachelor	Semester: 2	
<ul style="list-style-type: none"> • Remuneration and cost categories in the healthcare system • Cost type, cost center and cost unit accounting • Approaches and instruments of cost accounting systems and operational performance accounting • Methodological knowledge of cost and activity accounting based on practical examples • Principles of full cost accounting and direct costing, advantages and disadvantages, possible applications • Technical, informational and legal foundations of telemedicine and typical areas of application 		

SCIENTIFIC WORK AND SOCIAL COMPETENCIES

Module: WASOK	Scientific Work and Social Competencies
4 ECTS	Semester: 3
Scientific Work <ul style="list-style-type: none"> • Scientific work practices • Technical, scientific terms, methods and mindsets • Solution of concrete practical problems on the basis of scientific findings and the application of scientific working methods • Operationalizable recommendations for action • Ability for continuing education on the basis of appropriate specialist publications • Techniques of systematic search, retrieval and use of scientific publications • Foundations and techniques of scientific writing and scientific presentations Social Competencies <ul style="list-style-type: none"> • Aspects of a target-oriented and sovereign conversation and relationship management • Methods of conflict avoidance • Efficient and target-oriented communication • Empathy and solution-oriented conversation techniques • Time and self-management methods • Group dynamic processes and phases of team building and development 	

ETHICS AND LAW IN MEDICINE

Module: MEDRE	Ethics and Law in Medicine
4 ECTS	Semester: 3
<ul style="list-style-type: none"> • Foundations of applied medical ethics • The right to delegate medical services to non-medical staff, taking into account concerns of professional, liability, insurance and criminal law • Legal foundations for healthcare professionals 	

CLINICAL STUDIES

Module: KLSTU	Clinical Studies
4 ECTS	Semester: 5
<ul style="list-style-type: none"> • Legal, medical and statistical foundations of clinical studies • Tasks of study nurse and program coordinator • Teaching patients/study participants, implementing study measures, documenting study results 	

PROJECT MANAGEMENT

Module: PROJM	Project Management
5 ECTS	Semester: 6
<ul style="list-style-type: none">• Foundations of project management in healthcare and social and economy• Understanding for the improvement of internal processes and concrete project works• Change and implementation projects• Planning methods in practice• Contribution to project planning and implementation	

PART IV: COMPULSORY ELECTIVE MODULES

HOSPITAL HYGIENE

Module: HYGWP	Hospital Hygiene (Foundations and Specialization)
9 ECTS	Semester: 5-6
<ul style="list-style-type: none"> • Foundations and practice of the planning of hospital hygiene management and implementation of measures • Assuming tasks of a hygiene officer in hospitals • Implementing training elements in hospitals • Advising staff 	

MANAGEMENT OF EMERGENCIES

Module: NFMW	Management of Emergencies (Foundations and Specialization)
9 ECTS	Semester: 5-6
<ul style="list-style-type: none"> • Carrying out emergency management, from first aid to the definite treatment of patients • Collecting relevant information, initial care, launching diagnostics and mastering emergency situations • Assisting the doctor in emergency care measures, from anesthesia over surgical interventions to wound management • Instruments and medical technology • Maintaining emergency equipment • Following hygienic standards • Implementing quality assurance measures in emergency care 	

OPERATIVE PROFILE

Module: OPPW	Operative Profile (Foundations and Specialization)
9 ECTS	Semester: 5-6
<ul style="list-style-type: none"> • Planning and preparation of surgeries • Carrying out surgeries and assisting in these processes • Stabilizing bones and joints through external measures • Procedures in case of complications during surgeries • Parenteral feeding • Special pharmacology • Surgical aftercare, incl. subsequent curative care and rehabilitation • Documentations, billing, quality assurance and forensics 	

ADMINISTRATION OF HEALTHCARE FACILITIES

Module: ADMW	Administration of Healthcare Facilities (Foundations and Specialization)
9 ECTS	Semester: 5-6
<ul style="list-style-type: none"> • Administration of facilities in the healthcare and social sector • Management fields • Analysis and management of operational processes • Personnel management • Corporate communication and marketing • Implementing target-oriented management • Assuming responsibilities for distinct areas 	

OCCUPATIONAL MEDICINE AND PUBLIC HEALTH SYSTEM

Module: AMÖW	Occupational Medicine and Public Health System (Foundations and Specialization)
9 ECTS	Semester: 5-6
<ul style="list-style-type: none"> • Interrelations between environment, work and occupation on the one hand and health and diseases on the other • Prevention, detection, treatment and assessment of work and environment-related diseases <p>Specialization Occupational Medicine:</p> <ul style="list-style-type: none"> • Promotion of health and performance of the working person • Prevention, detection, treatment and assessment of work-related health risks and diseases • Rehabilitation • Advising employees • Techniques of medical precautionary, aptitude and suitability examinations at work • Proper documentation of examination results and medical prescriptions <p>Specialization Public Health Care System:</p> <ul style="list-style-type: none"> • Monitoring, assessment and protection of public health concerns • Advising public authorities on health issues, including planning and organizational tasks, health promotion and health provision, public hygiene, health supervision as well as disease prevention and control • Techniques of examinations performed by public health authorities, precautionary, aptitude and suitability examinations in general as well as for specific population groups (e.g. children and adolescents, migrants) • Proper documentation of examination results and medical prescriptions • Vaccinations 	

PART V: PRACTICAL MODULES

WORK ON A REGULAR WARD

Module: STATE	Work on a Regular Ward
6 ECTS	Semester: 1
<ul style="list-style-type: none"> • Anamnesis • Physical examination • Communicating results to the doctor • Preparing simple doctor's records • Understanding medical cognitive and decision-making processes • Carrying out simple delegable medical measures and activities on the patient and on the ward • Patients management • Identifying emergency situations and reacting appropriately • Documentation procedures • Basic rules of encoding 	

ELECTIVE PATIENT ADMISSION

Module: ELEPA	Elective Patient Admission
6 ECTS	Semester: 2
<ul style="list-style-type: none"> • Patient admission process, anamnesis, diagnosis and therapy planning • Anamnesis and physical examination, also for complex clinical pictures • Principal symptoms • Structuring documents and identifying and providing missing documents • Transmitting results correctly and in a way appropriate for specific recipients • Communicating appropriately with patients and relatives • Preparing preoperative surgical discussions • Preparing doctor's reports and further medical documents • Documentation, encoding and quality management • Patients and process management • Participating in inter-professional processes as a member of a team of physicians, fulfilling assigned tasks independently and actively participating in the exchange of information and ideas 	

EMERGENCY DEPARTMENT

Module: NFAUF	Emergency Department
6 ECTS	Semester: 3
<ul style="list-style-type: none"> • Processes of urgent and emergency treatment of acute illnesses, accidents and life-threatening conditions • Personal and third-party anamnesis under emergency conditions • Regulations for emergency diagnostics and therapy • Principal symptoms of life-threatening conditions • Prioritizing diagnostics and therapy • Initiating emergency measures in case of life-threatening conditions • Cardiopulmonary resuscitation • Administration of emergency medication according to prescription • Supporting the doctor in diagnostics, pain relief, positioning etc. • Evaluating typical laboratory results • Transmitting information correctly and in a way appropriate for specific recipients, also in emergency cases • Support patients until they are transferred to the operating theater or a ward 	

ENDOSKOPY / FUNCTIONAL DIAGNOSTICS

Module: ENDFD	Endoscopy / Functional Diagnostics
6 ECTS	Semester: 4
<p>Techniques, methods, application areas and informative value of:</p> <ul style="list-style-type: none"> • Radiography • Computer tomography • Magnetic resonance imaging • Scintigraphy • Sonography • Endoscopy • Laboratory examinations • Cardiovascular functional diagnostics • Pulmonary functional diagnostics • elective: <ul style="list-style-type: none"> ○ Neurophysiological functional diagnostics ○ Audiological and ENT functional diagnostics ○ Ophthalmological functional diagnostics ○ Allergy diagnostics <p>including</p> <ul style="list-style-type: none"> • Regulations • Protective measures • Typical possible complications and immediate measures • Properly preparing instruments and devices in compliance with regulations • Planning workflows • Assisting doctors and carrying out simple examinations in an independent way • Preparing preoperative surgical discussions • Preparing patients for examinations and being able to answer their questions • Documentation, electronic storage, quality assurance and encoding • Transmitting information and diagnostic findings correctly and in a way appropriate for specific 	

recipients

SURGERIES

Module: PRXOP	Surgeries
6 ECTS	Semester: 5
<ul style="list-style-type: none"> • Behavior in the operating theater • Airlocks, surgical hand disinfection and sterile clothing • Fundamental surgical techniques • Complying with the required hygienic, anti and aseptic as well as radiation protection regulations, processing of instrument, implants and pathological and microbiological preparations • Preparing the positioning of patients and assisting in the process • Setting up biomedical and X-ray technology • Storage of images and videos • Handling of surgical instruments and materials and their processing before and after surgery • Assisting surgeons and carrying out simple delegated measures in an independent manner • Planning workflows • Quality assurance • Documentation of surgical services and diagnostic measures • Preparation of surgical reports • Proper communication in OP teams according to the situation and addressee • Accompanying patients to and from the operating theater and passing on information correctly and completely 	

BACHELOR THESIS

Module: BATHE	Bachelor Thesis
12 ECTS	Semester: 6
<ul style="list-style-type: none"> • Students independently work on a practice-related problem within the stipulated timeframe and in target- and result-oriented way. They are supposed to apply scientific methods their and practical expertise. • Written thesis (50-60 pages) incl. defense 	