



MASTER OF PHYSICIAN ASSISTANT STUDIES

Educational Philosophy and Curriculum

An outline of the philosophic and pedagogical approach to the delivery, assessment and educational structure of the University of Manitoba MPAS curriculum.



UNIVERSITY
OF MANITOBA

Mission

The University of Manitoba Master of Physician Assistant Studies' mission is to educate outstanding Physician Assistant clinicians as generalist medical providers in service to our communities in Manitoba and Canada. We nurture the future leaders of the profession and lead the field in academic preparation of Physician Assistants in Canada.

We envision the Master of Physician Assistant Studies will provide an exceptional quality education meeting the needs of the students, patients, public, employers, University, and Government of Manitoba in producing a highly qualified generalist medical professional. We seek to educate professionals with critical thinking skills and clinical acumen who provide and improve access to quality medical care in all regions of Manitoba and Canada by placing the patient first.

It is our vision:

- To be identified as the leading source of accurate and comprehensive information on subjects related to Physician Assistants in Canada.
- To excel in the education and development of our students in the pursuit of their academic goals;
- To provide leading-edge research and material in support of our students and stakeholders;
- to deliver excellence and outstanding academic support to the community on Physician Assistant workforce and practice issues;
- To be viewed as the subject matter experts in the area of the Physician Assistant–Physician model of care;
- To foster the expansion and translation of knowledge related to Physician Assistants into the medical community.

Our values identify the Master of Physician Assistant Studies unit as a team effort where faculty, staff, and students value integrity, compassion, and excellence in the performance and approach to our studies and duties. We acknowledge that the words Change, Adapt, and Achieve are a reality of our community and society. We believe our actions must demonstrate respect, civility, and model professionalism to all and at all times.

We accomplish our mission and maintain our values and vision through the recognition that we live and function as part of a global community represented in our student body, patient and client base, resource network, and workplace environments. We conceptualize and recognize that as Physician Assistants and educators it is essential that the importance of learning outcomes and personal growth be defined in our evolving and changing curriculum context. That there is a need to reflect the role we serve in our global community through our teachings, lessons and learning activities. We recognize that the changing context of didactic education and clinical experiences reflect the need to adapt to technology and human growth.

Professionalism and Scholarship are life-long efforts requiring a commitment beyond the workplace. That to demonstrate respect and compassion require practicing integrity, responsibility, and accountability in our daily actions.

Our curriculum emphasizes engagement by teachers and students to develop an appreciation for the patient-centered medicine. Our pedagogy embraces a spiral curriculum with topics and material revisited at different levels of difficulty and complexity.

We build our understanding of clinical medicine on the foundation of medical science. New learning and clinical experiences relate to previous lessons to reinforce and expand the knowledge base. All aspects of the educational experience contribute to the growth and development of our graduates.

Physician Assistant (PA)

Physician Assistants or PAs are medically educated clinicians practicing as generalists within an approved structure or relationship with Physicians. PAs provide a broad range of medical services including diagnoses through medical histories and physical exams, ordering and interpreting diagnostic studies, performing therapeutic procedures or prescribing medications, and educating and counseling patients. Although qualified as generalists, PAs receive additional education and experience to develop a knowledge of a specialty and may work in a wide variety of practice settings.

PAs are Associate Regulated Members of the College of Physicians and Surgeons of Manitoba requiring an approved Practice Description and Contract of Supervision to practice medicine. The Contract of Supervision identifies the primary and alternative physicians who may supervise the PA. The PA's scope-of-practice mirrors that of their Attending Doctor(s) with permission to perform restricted acts, prescribe or write medical orders established by regulations and provincial law.

Physician Assistants in Canada have a National Competency Profile (CANMEDS-PA) developed in collaboration with the Canadian Medical Association, the Royal College of Physicians and Surgeons of Canada, the PA profession, and Medical Educators. The Canadian Medical Association in 2003 recognized the Physician Assistant profession as unique and distinct from 21 other Healthcare professionals provided accreditation services at that time.

PA utilization focuses on clinical situations where a qualified medical professional is required to complete duties traditionally performed by the physician. Under the various provincial Medical Acts, physicians may delegate controlled acts to a health professional through a formalized relationship with a licensed physician. This relationship is a cornerstone of the PA-MD model essential to the ability to practice. The delegation concept improves access and enhances care, allowing issues that require the extensive and unique medical knowledge for effective and efficient management. The intra-professional team model improves the overall quality of care provided.

PAs possess a defined body of knowledge building on the medical sciences and clinical medicine that includes clinical and procedural skills, and a professional philosophy to support effective patient care. PAs apply these competencies to collect data and interpret information, develop and further investigate differential diagnoses, make appropriate clinical decisions, and carry out required diagnostic, procedural, and therapeutic interventions. PAs' activities supplement and does not supplant the work of physicians as both philosophy and reality of clinical practice. Tasks vary based on the PAs level of experience and expertise, clinical setting, and patient population.

Generalism and Generalist Practice

Physician Assistants provide nine clusters of activity that serve the assigned patient population. The Physician Assistants' scope of practice includes:

- Gathering data
 - Diagnosing and managing common problems, conditions, and diseases
 - Conducting laboratory and diagnostic studies
 - Performing medical management activities
 - Performing surgical procedures
 - Managing emergency situations
 - Performing health promotion and prevention activities
 - Prescribing medications
 - Using interpersonal skills
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The MPAS accepts the Royal College of Physicians and Surgeons of Canada definitions of Generalism and Generalists. Generalist medicine is a philosophy of care distinguished by a commitment to the breadth of practice within each discipline and collaboration with the larger health care team to respond to patient and community needs. Generalists have core abilities characterized by a broad-based practice. Generalists diagnose and manage clinical problems that are diverse, undifferentiated, and often involved. Generalists also have an essential role in coordinating patient care and advocating for patients. Our graduates will be responsive to the needs of the patient and their community having a core knowledge allowing adaptation to the needs of society. Educated and qualified as generalists, PAs after graduation receive additional education, training, and experience on the job developing knowledge of a specialty. PAs fill needs in primary care or surgical or medical specialties in a wide variety of practice settings.

PA Professional Competencies

Physician Assistants can contribute to the care of all patients wherever they present. Research demonstrates that PAs in primary care settings provide 70-82 percent of all visit care without referral to physicians. This referral rate will vary based on experience, the complexity of care, practice relationship, and practice environment. The Australasian College of Emergency Medicine and Australasian Society for Emergency Medicine suggests that PAs can manage up to 62 percent of all patients in emergency care. This study also found that in the emergency department settings PAs appeared equally capable of performing procedures if adequately trained and supervised and that the quality of care provided by PAs was comparable with that of emergency specialists (attending) physicians and senior residents. Generalist medical education of the MPAS program allows a greater degree of flexibility and adaptability to the health care environment of Manitoba.

Academic Standards

MPAS Supplemental Regulations define satisfactory academic performance:

http://umanitoba.ca/faculties/graduate_studies/media/MPAS_2012-07.pdf

Requirements for Completion of the MPAS Curriculum

The successful completion of the course of study leading to the awarding of the Master of Physician Assistant Studies includes achieving the following:

- A degree grade point average greater than 3.0 with no grade below C+ in all required course work (including Clinical Rotations).

- A “Pass” grade on the comprehensive, three-hour multiple choice examination (Comprehensive Year One Exam, PAEP 7150) for the didactic portion of the curriculum, administered at the end of Year 1.
- A grade of Pass on the final Comprehensive Assessment of Clinical Skills examination, PAEP 7300. This exam consists of each student performing 12 observed and structured patient assessments during the clinical training year.
- Demonstrated competence at an Entry-to-Practice Physician Assistant level as determined by MPAS Faculty using the student’s clinical performance detailed in PA In-Training Evaluation Reports, mini-Clinical examinations, and observed histories and physical exams.
- A “Pass” grade on the Capstone Project PAEP 7350,

Multiple assessment and evaluation measures utilized in the MPAS are formative and summative in nature to determine the competency of our learners and graduates. Course work requirements and grading mechanisms are in each course syllabi. Per Faculty of Graduate Studies policy as outlined in the Graduate Calendar, a minimum grade point average of 3.0 with no grade below C+ is required in all courses for continuance in the Master of Physician Assistants Studies. Students who fail to maintain this standing are required to withdraw unless the Dean of Graduate Studies approves a remedial recommendation from the MPAS Progress Committee. Progress Committee recommendations may include sitting for supplemental exams, repeating clinical rotations, or other forms of remediation as appropriate. Failure of any recommended or required remediation, examination or repeated clinical rotations will result in a requirement to withdraw from the Program.

Clinical Rotations are Pass/Fail. Students receiving unsatisfactory (Fail) Physician Assistant – In-Training Evaluation Reports (PA-ITER) in more than six credit hours of didactic course or clinical rotations receive an academically discharged from the MPAS program. Unsatisfactory ITERS in any Clinical rotation require remediation. If the MPAS Progress Committee determine a student’s performance in clinical work is not remediable, (in cases of gross violations of professional ethics, for example), the student will be dismissed from the University. PA-Learners are also required to demonstrate satisfactory performance in areas related to professionalism while on rotation and enrolled in the program, such as attendance at and participation in lectures, seminars and laboratories, and the capstone project.

Physician Assistant In-Training Evaluation Report (PA-ITER) is the clinical performance evaluation filled out by preceptors at the mid-point and end of each clinical rotation. PA-ITERS assess CanMEDS competencies. At the completion of each clinical rotation, all students are

required to attain a satisfactory PA-ITER as determined by the clinical rotation preceptor(s) and submitted to MPAS. Students who obtain an unsatisfactory PA-ITER in 6 credit hours or less of clinical rotation time (a 4-week rotation is three credit hours) may be permitted, at the discretion of the MPAS Progress Committee, to complete some form of remediation determined by the MPAS Progress Committee.

Mini-Clinical Evaluations (Mini-CEX) are a clinical preceptor observed student's performance in a 15 to 20-minute clinical encounter with a patient. This exercise focuses on components of the patient encounter, such as history taking, physical exam skills, or patient education. The patient encounter is accompanied by 10 to 15 minutes of feedback from the preceptor. Learners are responsible for ensuring that a minimum of 22 mini-CEXs over the course of their clinical year.

During the clinical year, twelve structured and simulated patient encounters are formally assessed. The Max Rady College of Medicine's Clinical Assessment Program provides these evaluations using an observed structured clinical examination (OSCE) format.

Comprehensive Assessment of Clinical Skills (CACS) is the combined evaluation completed at the end of the Clinical Year 2 by MPAS Faculty. CACS is a summative review of each student's clinical performance using Academic performance, PA-ITERs, Mini-CEX evaluations, and the summative H & Ps or OSCEs. The CACS graded on a pass/fail basis by consensus of the Progress Committee with input from the MPAS Program Director, Medical Director, and MPAS faculty. If significant concerns regarding performance in one or more areas exist (clinical skills, medical expertise, communication skills, professionalism, and collaboration), the matter is forwarded to the MPAS Progress Committee for review, retesting, or remediation.

The Physician Assistant's key roles:

1. As **Medical Experts** physician assistants function effectively as a physician extender, integrating all of the **CanMEDS Roles** to provide optimal, ethical and patient-centered medical care. Physician Assistant education incorporates **clinical medicine** with relevance across the human life cycle, including **inpatient care, outpatient care, surgical care, emergency care, psychiatric/behavioral care** and **primary care**.
2. As **Communicators**, physician assistants effectively facilitate patient-centered care and the dynamic exchanges that occur before, during, and after the medical encounter.
3. As **Collaborators**, physician assistants work with the supervising physician to effectively work within a healthcare team to achieve optimal patient care.
4. As **Managers**, physician assistants are integral participants in healthcare organizations working with their supervising physician to organize sustainable practices, make decisions about allocating resources, and contribute to the effectiveness of the healthcare system.
5. As **Health Advocates**, physician assistants responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.
6. As **Scholars**, physician assistants demonstrate a lifelong commitment to reflective learning and the application and translation of medical knowledge.
7. As **Professionals**, physician assistants are committed to the health and well-being of individuals and society through ethical practice, profession-led association, and high personal standards of behavior.

Generalism and Generalist Practice

Physician Assistants provide **nine general clusters of activity** that serve the assigned patient population. The Physician Assistants' **scope of practice** includes:

1. Gathering data
2. Recognizing and managing common problems, conditions, and diseases
3. Conducting laboratory and diagnostic studies
4. Performing medical management activities
5. Performing surgical procedures
6. Managing emergency situations
7. Conducting health promotion and disease prevention activities
8. Prescribing medications
9. Using interpersonal skills

General Objectives

The Physician Assistant - Learner will have demonstrated the appropriate ability to:

1. Accurately obtain a **clinical history**
2. Perform the appropriate **physical examination skills** required
3. Develop **differential diagnosis**.
4. Building from the differential diagnosis **order** and **interpret** the appropriate **diagnostic studies**.
5. **Correlating the information obtained** from the patient encounter the PA-S should **formulate a treatment plan** for the diseases and conditions commonly encountered in the selective patient's population
6. **Present that information and plan** for approval to the physician supervisor according to the protocols of that jurisdiction.
7. Function effectively as a **dependent and supervised Medical Clinician** who **integrates all of the CanMEDS Roles** to provide optimal, ethical and patient-centred medical care;
8. With **appropriate consultation with the Attending** and Supervising Physician implement and provide the effective management plans that include preventive, patient education and **therapeutic interventions**;
9. Demonstrate designated **procedural skills, both diagnostic and therapeutic**;
10. **Seek appropriate consultation and follow-up care** for the patient with licensed and qualified professionals, including the appropriate community **referrals** that will **address issues related to the social determinants of health**.

Entry to Practice Competencies for the Physician Assistant Graduate

1. History Taking and Performing Physical Examinations

Knowledge of:	Skills in:
a) Etiologies associated with presenting symptoms or physical findings b) Signs and symptoms of selected medical conditions c) Risk factors for development of selected medical conditions d) Pertinent historical information associated with selected medical conditions e) Physical examination techniques	<ul style="list-style-type: none">• Identification of pertinent historical information• Association of current complaint with presented history• Identification of pertinent physical examination information

f) Physical examination of findings associated with selected medical conditions	
g) Appropriate physical examination directed to selected medical conditions	
2. Using Laboratory and Diagnostic Studies	
Knowledge of:	Skills in:
a) Indications for initial and subsequent diagnostic or laboratory studies b) Cost-effectiveness of diagnostic studies or procedures c) Relevance of common screening tests for selected medical conditions d) Normal and abnormal diagnostic data	<ul style="list-style-type: none"> • Selection of appropriate diagnostic or laboratory studies • Collection of diagnostic or laboratory specimens • Interpretation of diagnostic or laboratory studies results • Prediction of diagnostic or laboratory studies results
3. Formulating Most Likely Diagnosis	
Knowledge of:	Skills in:
a) Interpretation of history to differentiate disorders b) Interpretation of particular physical findings to differentiate disorders	c) Correlation of normal and abnormal diagnostic data d) Formulation of differential diagnosis e) Selection of most likely diagnosis in light of available data
4. Non-Pharmacologic Clinical Interventions	
Knowledge of and ability to implement:	Skills in:
a) Indications, contraindications, complications, and techniques for selected procedures b) Non-pharmacologic management of selected medical conditions c) Indication for admission to hospital or other facilities d) Conditions that constitute medical emergencies e) Discharge planning f) Available medical or surgical options g) Universal precautions h) Informed consent i) Surgical principles <ul style="list-style-type: none"> o Wound healing o Appropriate patient education regarding current condition and related risk factors 	<ul style="list-style-type: none"> • Formulating and implementing plans • Sterile technique
5. Pharmacologic Clinical Interventions	
Knowledge of:	Skills in:
a) Pharmacokinetic properties of pharmacologic agents used in the treatment of selected conditions b) Indications, contraindications, side effects, and adverse reactions of pharmacologic agents c) Follow-up and monitoring of pharmacologic regimens d) Risks for, clinical presentation of, and treatment of drug interactions e) Risks for, clinical presentation of, and treatment of acute drug toxicity	<ol style="list-style-type: none"> 1. Selection of appropriate pharmacologic therapy for selected medical conditions
6. Health Maintenance and Patient Education	
Knowledge of:	Skills in:
a) Epidemiology of selected medical conditions b) Risk factors for conditions amenable to prevention or detection in an asymptomatic individual	<ol style="list-style-type: none"> 2. Counseling and patient education techniques

c) Relative value of common screening tests for conditions amenable to prevention or detection in an asymptomatic individual d) Appropriate patient education regarding preventable conditions or needed lifestyle modifications e) Immunization schedules for infants, children, adults, and foreign travelers f) Behavioural change models. g) Stress adaptation and coping	
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7. Basic Medical Sciences

Knowledge of:

- a) Underlying **pathologic processes or pathways** associated with a given condition
- b) Normal and abnormal **anatomy and physiology** including human growth, development, and sexuality
- c) Normal and abnormal **microbiology**
- d) **Critically appraise** the medical literature and participate in clinical research including the retrieval of evidence to support medical decisions

8. Professional Behaviours

The student will:

- a) Demonstrate appropriate **professional interaction** with patients
- b) Demonstrate appropriate **professional interaction** with healthcare professionals
- c) **Dress in a professional manner**, appropriate to the rotation.
- d) Demonstrate a **positive attitude**, showing enjoyment in work
- e) **Accept feedback and advice** as learning opportunities.
- f) **Take the initiative** and be a self-directed learner
- g) **Cooperate** with all staff
- h) Keep all office and patient **information confidential**
- i) **Arrive on time** for rotation and any **assigned educational** opportunities
- j) **Handle stress and complexities** of clinical situations well.
- k) **Complete assignments** and chart work
- l) Exhibit **self-confidence**, knowing **limitations**

Procedures

Also, by the end of the clinical year the PA student will have become familiar with the following procedures:

Integumentary:	Injections and Cannulations:
a) Abscess incision and drainage b) Insertion of sutures; simple c) Laceration (simple) repair; suture and gluing d) Cryotherapy of skin lesions, Skin scraping for fungus determination e) Release subungual hematoma f) Drainage acute paronychia g) Removal of foreign body e.g. Fishhook, splinter, or glass h) Pare skin callus	a) Intramuscular injection b) Subcutaneous injection c) Intradermal injection d) Venipuncture e) Peripheral intravenous line
Local Anesthetic:	Genitourinary & Women's Health:
a) Infiltration of local anesthetic	a) Pelvic Examinations and Pap smear
Eye:	Resuscitation
a) Application of Fluorescein b) Removal of corneal or conjunctival foreign body c) Application of eye patch	a) Oral airway insertion b) Bag and Mask ventilation c) Cardiac defibrillation
Ear:	Nose:
a) Removal of Cerumen b) Removal of foreign body	a) Removal of Foreign Body b) Anterior nasal packing
Gastrointestinal:	Obstetrical:
a) Nasogastric tube insertion b) Fecal Occult Blood testing	a) Provide assistance in normal vaginal delivery
Musculoskeletal:	
a) Splinting of injured extremities	

b) Application of sling – upper extremity	
c) Assist in the application of simple casts	
d) Assist in the aspiration and injection of joints	

Common Clinical Conditions for the Physician Assistant to Manage

Physician Assistants share a common approach to the practice of medicine as Physicians. Using the recommendations of the College of Family Physicians of Canada (CFPC) the University of Manitoba Master of Physician Assistant Studies provides a **foundation** for the **assessment and diagnosis of common medical complaints** as identified in the **CFPC's Priority Topics and Key Features with Corresponding Skill Dimensions and Phases of the Encounter.**

<http://www.cfpc.ca/uploadedFiles/Education/Priority%20Topics%20and%20Key%20Features.pdf>

- Abdominal Pain
- Advanced Cardiac Life Support
- Allergy
- Anemia
- Antibiotics
- Anxiety
- Asthma
- Atrial Fibrillation
- Bad News
- Behavioural Problems
- Breast Lump
- Cancer
- Chest Pain
- Chronic Disease
- Chronic Obstructive Pulmonary Disease
- Contraception
- Cough
- Counselling
- Crisis
- Croup
- Deep Venous Thrombosis
- Dehydration
- Dementia
- Depression
- Diabetes
- Diarrhea
- Difficult Patient
- Disability
- Dizziness
- Domestic Violence
- Dyspepsia
- Dysuria
- Earache
- Eating Disorders
- Elderly
- Epistaxis
- Family Issues
- Fatigue
- Fever
- Fractures
- Gastrointestinal Bleed
- Gender Specific Issues
- Grief
- Headache
- Hepatitis
- Hyperlipidemia
- Hypertension
- Immigrants
- Immunization
- In Children
- Infections
- Infertility
- Insomnia
- Ischemic Heart Disease
- Joint Disorder
- Lacerations
- Learning:
- Patients:
- Self-Learning:
- Lifestyle
- Loss of Consciousness
- Loss of Weight
- Low-back Pain
- Meningitis
- Menopause
- Mental Competency
- Multiple Medical Problems
- Neck Pain
- Newborn
- Obesity
- Osteoporosis
- Palliative Care
- Parkinsonism
- Periodic Health Assessment/Screening
- Personality Disorder
- Pneumonia
- Poisoning
- Pregnancy
- Prostate
- Rape/Sexual Assault
- Red Eye
- Schizophrenia
- Seizures
- Sex
- Sexually Transmitted Infections
- Skin Disorder
- Smoking Cessation
- Somatization
- Stress
- Stroke
- Substance Abuse
- Suicide
- Thyroid
- Trauma
- Travel Medicine
- Upper Respiratory Tract Infection
- Urinary Tract Infection
- Vaginal Bleeding
- Vaginitis
- Violent/Aggressive Patient
- Well-baby Care

The University of Manitoba Master of Physician Assistant Studies website is found at:

<http://umanitoba.ca/physicianassistant>

Address inquiries concerning the curriculum to mpas@umanitoba.ca .