

## Physical Therapist Assistant Program Course Sequence and Descriptions

**Please note:** Course sequence, numbers and descriptions are reviewed annually. Any changes can be found on the Bay State College web site at <http://www.baystate.edu>. All of the following courses are **required** for graduation. All PTA courses along with Anatomy and Physiology I and II must be passed with a C or better to progress in the PTA Program.

First Semester			Second Semester		
Course	Code	Cr	Course	Code	Cr
English II	ENG 102	3	Literature / English Elective	LIT ____	3
Anatomy & Physiology I with Lab	BIO 201	4	Anatomy & Physiology II with Lab	BIO 202	
PTA Freshman Seminar I	PTA 104	1	PT Assess & Measurement with Lab	PTA 121	4
Introduction to Physical Therapy with Lab	PTA 101	4	Soft Tissue Techniques & Modalities with Lab	PTA 212	3
Clinical Pathologies	PTA 122	3	Kinesiology with Lab	PTA 123	4
Psychology	PSY 101	3	PTA Freshman Seminar II	PTA 124	1
First Year Experience	FYE 101	1	<b>Summer Session</b>		
			Clinical Education I	PTA 130	4

Third Semester			Fourth Semester		
Course	Code	Cr	Course	Code	Cr
Senior Seminar I	PTA 217	1	Senior Seminar II	PTA 221	4
Musculoskeletal PT Intervention with Lab	PTA 213	4	Clinical Education II	PTA 240	4
Cardiopulmonary PT Intervention with Lab	PTA 215	3	Clinical Education III	PTA 250	4
Neuromuscular PT Intervention with Lab	PTA 216	4			
Sociology	SOC 101	3			

# Physical Therapist Assistant Program Course Descriptions

## **BIO 201 Anatomy and Physiology I with Lab**

Anatomy and Physiology I begins with the most basic level of organization, the cell, and progresses through the study of tissues, then moves onto the study of organs and organ systems. Four organ systems that will be covered include: integumentary, skeletal, muscular and nervous. This course includes a two-and-a-half-hour lab  
[Pre-Requisite: None Co-Requisite: None]

**Credits 4**

## **BIO 202 Anatomy and Physiology II with Lab**

Anatomy and Physiology II covers the endocrine, immune, lymphatic, reproductive, digestive, cardiovascular, respiratory, and renal systems. This course includes a two-and-a-half-hour lab. All anatomical and physiological principles under study are emphasized in the laboratory component of this course through the use of scientific models, charts, and tissue specimens.

[Pre-Requisite: BIO 201 with min grade of C; Co-Requisite: None]

**Credits 4**

## **PTA 101 Introduction to Physical Therapy**

This course introduces students to the history of physical therapy and its role in the health care system. Students are introduced to the physical therapy delivery system as well as discuss issues of insurance reimbursements, health care management, and professional ethics. Basic physical therapy skills such as communicating with patients, body mechanics, bed mobility and positioning, transfer training, basic gait training, and range of motion exercises are covered in lecture and lab sessions. Students are introduced to the basics of physical therapy documentation. This course includes a 2.5-hour lab.

[Pre-Requisite: None; Co-Requisites: BIO 201, PTA 104, PTA 122]

**Credits 4**

## **PTA 104 Freshman Seminar I**

This seminar assists the PTA student in applying didactic knowledge presented in the first semester of the PTA program to the practice of physical therapy utilizing current models of health care practice. A problem-based learning approach will be used to guide the student in developing critical thinking skills to synthesize information from anatomy and physiology, pathology and the introduction of physical therapy courses. Students will identify areas of academic and professional need, develop, implement and assess their plan to meet those needs. All PTA first semester students are required to take this seminar course.

[Pre-Requisite: None; Co-Requisites: BIO 201, PTA101, PTA122]

**Credits 1**

## **PTA 122 Clinical Pathologies**

This course introduces students to broad categories of diseases, disorders, and injuries within the framework of the Guide to Physical Therapist Practice and the WHO Classification of functioning, disability, and health. Students learn about disease processes and understand components of neuromuscular, musculoskeletal, integumentary, cardiopulmonary, immunological, and general medical pathologies through the lifespan. Consideration of culture, gender and age are discussed.

[Pre-Requisites: None; Co-Requisites: PTA 101, PTA 104 and BIO 201]

**Credits 3**

## **PTA 124 Freshman Seminar II**

This seminar assists the PTA student in applying didactic knowledge presented in the second semester of the PTA program to the practice of physical therapy utilizing current models of health care practice. A problem-based learning approach will be used to guide the student in developing critical thinking skills to synthesize information from anatomy and physiology, Kinesiology, PT Assessment and Measurement and Soft Tissue Techniques and Modalities courses. Students will identify areas of academic and professional need, develop, implement and assess their plan to meet those needs. All PTA second semester students are required to take this seminar course.

[Pre-Requisite: BIO 201 with min grade of C, PTA 101, PTA 104, and PTA 122;

Co-Requisites: BIO 202, PTA 121, PTA 123, PTA 212]

**Credits 1**

### **PTA 121 PT Assessment and Measurement**

Students gain an understanding of the PT and PTA roles in patient assessment and its importance in guiding the provision of quality, cost effective care. Students learn to assess the following: segmental length, girth and volume, vital signs, edema, skin condition, joint range (goniometry), sensation, reflexes, balance, posture and pain. Assessment of home and work environments is also introduced. In addition, students gain further training and experience in documentation and prepare for the first clinical affiliation. Course content is closely coordinated with Anatomy and Physiology II and PTA 122. This course includes a 2.5-hour lab. [Pre-Requisites: BIO 201 with min grade of C, PTA 101, PTA 104, PTA 122; Co-Requisites: BIO 202, PTA 123, PTA 124 and PTA 212]

**Credits 4**

### **PTA 123 Kinesiology**

This course reviews anatomy of the extremities and spine with emphasis on muscle and nerve distributions. The course is designed to teach students joint and muscle function as they apply to human movement and musculoskeletal function. Kinesiology utilizes principles of mechanics, musculoskeletal physiology, and neuromuscular physiology. Students learn manual muscle testing as part of this course. This course includes a 2.5-hour lab.

[Pre-Requisites: PTA 101, PTA 104, PTA 122 and BIO 201 with min grade of C;  
Co-Requisites: PTA 121, PTA 124, PTA 212 and BIO 202]

**Credits 4**

### **PTA 130 Clinical Education I**

This is the first of three six-week clinical affiliations required in the program. The Academic Coordinators of Clinical Education schedule students for a clinical experience location and time frame. The time frames for Clinical Education I normally occur anytime during the summer months. Students are given the opportunity to apply skills and knowledge learned in the first two semesters of class and lab to a clinical setting. Students begin treating patients under appropriate clinical supervision. [Pre-Requisites: PTA 101, PTA 104, PTA 121, PTA 122, PTA 123, PTA 124, PTA 212, BIO 201 and BIO 202 with min grades of C; Co-Requisite: None]

**Credits 4**

### **PTA 212 Soft Tissue Techniques and Modalities**

Students learn soft tissue techniques such as massage and basic myofascial release. Wound and burn care concepts are explored. The course also covers the indications, contradictions, and application of modalities including ultrasound, electrical stimulation, thermal agents, traction, biofeedback, laser and hydrotherapy. Students gain skills in documentation related to the course content area. This course includes a 2.5-hour lab.

[Pre-Requisites: PTA 101, PTA 104, PTA 122, and BIO 201 with min grade of C;  
Co-Requisites: PTA 121, PTA 123, PTA 124, and BIO 202]

**Credits 4**

### **PTA 213 Musculoskeletal PT Intervention**

This course covers the physical therapy treatment of musculoskeletal conditions. Students learn the principles of therapeutic exercise. Emphasis is placed on the integration of exercise regimes into patient care plans for a variety of patient populations, including geriatric and pediatric. Students also learn about different treatment strategies, such as group or tandem treatments. Concepts of orthotic and prosthetic use are explored in relationship to the patient with orthopedic, musculoskeletal conditions and lower extremity amputations. Documentation skills related to the course content areas are included. This course includes a 2.5-hour lab. [Pre-Requisites: PTA 130 with min grade of C; Co-Requisites: PTA 215, PTA 216 and PTA 217]

**Credits 4**

### **PTA 215 Cardiopulmonary PT Intervention**

This course covers physical therapy assessment and treatment of cardiac, vascular and pulmonary conditions. Students learn theories of clinical assessment and management and the major therapeutic strategies and skills used in the treatment of patients with cardiopulmonary conditions. Students also learn documentation skills related to the course content area. This course includes a 2-hour lab.

[Pre-Requisites: PTA 130 with min grade of C;  
Co-Requisites: PTA 213, PTA 216, PTA 217]

**Credits 3**

**PTA 216 Neuromuscular PT Intervention**

This course covers physical therapy treatment of neuromuscular conditions across the lifespan. Students learn theories of motor control and the major therapeutic strategies and skills used in the assessment and treatment of patients with neuromuscular conditions. Basic pediatric neurological / development treatment techniques are also covered. Students learn appropriate intervention techniques for all age populations. Students also learn documentation skills related to the course content area. This course includes a 2.5-hour lab.

[Pre-Requisite: PTA 130 with min grade of C; Co-Requisites: PTA 213, PTA 215, PTA 217]

**Credits 4**

**PTA 217 Senior Seminar I**

This course is designed to assist students in understanding the connection between physical therapy interventions taught in each of the PT practice pattern courses. Students will assimilate information from each of their courses through case studies and the review of evidence based practice. Students will have the opportunities to practice and refine practical application techniques while exploring the rationale for chosen techniques.

[Pre-Requisite: PTA 130 with min grade of C; Co-Requisites: PTA 213, PTA 215, PTA 216]

**Credits 1**

**PTA 221 Senior Seminar II**

This seminar course is divided into three units: (1) Physical Therapy Management for Special Patient Populations: Students learn to integrate and adapt the knowledge and skills gained in previous coursework to the treatment of some special patient populations. The unit covers topics of special interest to the students including, but not limited to, women's health issues, wheelchair and seating fitting, geriatric, orthotic and prosthetic fitting. (2)

Comprehensive Physical Therapy Management: This unit challenges students to apply evidence-based practice, problem-solving and analytical thinking to answer questions and develop solutions to problems relating to specific patient scenarios. It requires students to integrate learning experiences from the entire curriculum and helps prepare them for Clinical Education III. (3) Professional Preparation: This unit assists students to prepare to enter the profession of physical therapy. The unit is taught jointly with the Career Service Department. Topics include resume and cover letter writing, interview skills, preparing professional presentations, licensure requirements, and a review of the legal aspects of physical therapy delivery. Units 1 and 2 include a lab component. This course is compressed into the 4 weeks between clinical education II and III.

[Pre-Requisites: PTA 240 with a min grade of C]

**Credits 4**

**PTA 240 Clinical Education II**

Students enter the second clinical affiliation after completing all practice pattern coursework. This experience provides them with the opportunity for additional experiential learning. Students apply and hone their new skills and knowledge in a clinical setting under appropriate supervision. By the end of this affiliation students demonstrate entry level skills in multiple areas but may still require some supervision and hands-on teaching.

[Pre-Requisite: PTA 213, PTA 215, PTA 216 and PTA 217 with min grade of C; Co-Requisite: None]

**Credits 4**

**PTA 250 Clinical Education III**

Students enter the third clinical affiliation with entry-level skills in the majority of categories. The purpose of the final clinical affiliation is to (1) ensure the achievement of entry-level skills, (2) ensure the safety of student interactions and activities while in the clinic, and (3) ensure that the student maintains a professional manner and demeanor in all clinical situations. As in previous clinical education courses, the student is provided with appropriate clinical supervision. By the end of this affiliation the student demonstrates full readiness to enter the profession of physical therapy. [Pre-Requisite: PTA 221 and PTA 240 with min grade of C; Co-Requisite: None]

**Credits 4**