



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Rehabilitation Sciences

Study Plan of Bachelor Degree in Physical Therapy

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Vision:

The vision of the department is to lead, through academic and research excellence, regional and national health care delivery in the field of rehabilitation sciences.

Mission:

Consistent with the mission of J.U.S.T. and the F.A.M.S. our mission at the department of rehabilitation sciences is to be a premier in improving physical therapy profession through graduating fully qualified graduates to fulfill the need in the community and the region.

Objectives:

1. Preparing scientific talented, trained and qualified graduates in the field of physical therapy.
2. Conducting scientific research through trained and qualified academic staff
3. Community service in the field of physical therapy.

Job Opportunities:

1. Rehabilitation departments in public and private hospitals, and out-patient clinics that concerns with physical, neurological and developmental rehabilitation.
2. Rehabilitation centers for children with special needs.
3. Nursing homes.
4. Public and private schools.
5. Physical fitness centers (gyms)

Study Plan of Bachelor Degree in Physical Therapy

Numbering and coding system of courses of the study plan

Course Coding

The following codes are used to designate courses:

| Department | | Level/year | Field | Sequence |
|------------|---|------------|-------|----------|
| A | B | X | Y | Z |

The Department codes (A, B) are as follows:

| Code | Department | Code | Department |
|-----------|-------------------------|------|------------------------------|
| TDEN | Dental technology | AS | Audiology and speech therapy |
| PT | Physical therapy | PARA | Paramedics |
| OT | Occupational therapy | ADS | Allied dental sciences |
| OPT | Optometry | LM | Medical laboratory sciences |
| RA | Radiology technology | | |

Course Numbering

- The Physical Therapy courses are tabled and numbered in such a manner to recognize each course regarding its subject area, year or level, and semester offered.
- Ex. PT XYZ: The **PT** symbol in the course number denotes Physical Therapy and (XYZ) is a 3-digits number:

A. The first digit denotes the year level of the course according to student's study plan as follows:

| Code | Level/year |
|------|------------|
| 1 | First |
| 2 | Second |
| 3 | Third |
| 4 | Fourth |

B. The second digit denotes the course field subject as follows:

| Number | Specialization |
|--------|---|
| 0 | Introductory courses |
| 1 | Basic medical courses |
| 2 | Assessment in physical therapy |
| 3 | Modalities and techniques in physical therapy |
| 4 | Orthopedic physical therapy |
| 5 | Neurological physical therapy |
| 6 | Cardiopulmonary physical therapy |
| 7 | Physical therapy in surgical conditions and burns |
| 8 | Physical therapy across the life span |
| 9 | Clinical training |

C. The third digit denotes sequence of semester during which the course is offered according to the study plan. In way that odd numbers are given to the first and summer semesters while even numbers are given to second semesters.

Example: PT 102 introduction into physical therapy means:

| PT | 1 | 0 | 2 |
|------------------|--------------------|-----------------------------|----------------------------|
| Physical Therapy | Level (first year) | Field (introductory course) | Sequence (second semester) |

A Bachelor of Science (B.Sc.) degree in Physical Therapy at JUST is awarded in accordance with the statute stated by JUST regulations for B.Sc. awarding issued by the Dean's Council based on the adjusted 1987 law for awarding scientific degrees and certifications at JUST after completing (133) credit hours successfully.

The study plan composed of the following:

| Classification | Credit hours | | |
|------------------------|--------------|----------|-------|
| | Compulsory | Elective | Total |
| University requirement | 16 | 9 | 25 |
| Faculty requirement | 24 | - | 24 |
| Department requirement | 84 | - | 84 |
| Total | 124 | 9 | 133 |

A. University Requirements (25 Credit Hours)

1. Compulsory University Requirements: (16 Credit Hours)

| Course No. | Course title | Credit hours | Theoretical | Practical |
|-----------------------|---------------------------------|--------------|-------------|-----------|
| ARB 101 | Arabic language | 3 | 3 | - |
| HSS 119 | Entrepreneurship and innovation | 2 | 2 | - |
| LG 112 ⁽¹⁾ | English language 2 | 3 | 3 | - |
| HSS 110 | Social Responsibility | 3 | 2 | 1 |
| MS 100 ⁽²⁾ | Military sciences | 3 | 3 | - |
| HSS 129 | General Skills | 2 | 2 | LG 112 |

Notice: All non-Arabic speaking international students in the University are required to study one course in Arabic language as a substitute for ARB 101 shown below:

| Course No. | Course title | Credit hours | Theoretical | Practical |
|------------|---|--------------|-------------|-----------|
| ARB 101A | Fundamentals of Arabic language (for non-Arabic speaking students) as a substitute for the course ARB101 Arabic language) | 3 | 3 | - |

- (1) Pre-requisite: passing LG 099 or passing English Language Placement Test with a grade > 50%.
- (2) This course is required from Jordanian students only; graded on Pass/Fail basis. Students graduating from Royal Military faculty and military candidate's school and equivalent institutes are exempted from taking this course. Non-Jordanian Arabic speaking students are required to take a substitute for this course from the elective courses and in this case the grade of this course is included in their grade point average (GPA).

2. Elective courses: (9 credit hours) selected from the following courses:

| | Course No. | Course title | Credit hours | Theoretical | Lab |
|------------------------------|------------|---|--------------|-------------|-----|
| Group One: Humanities | | | | | |
| 1. | ARB 200 | Appreciation of literary texts | 3 | 3 | - |
| 2. | HSS 103 | The Palestinian issue | 3 | 3 | - |
| 3. | HSS 115 | Islam and recent problems | 3 | 3 | - |
| 4. | HSS 116 | Economic system in Islam | 3 | 3 | - |
| 5. | HSS 121 | Principles of sociology | 3 | 3 | - |
| 6. | HSS 126 | Principles of psychology | 3 | 3 | - |
| 7. | HSS 127 | Educational technology | 3 | 3 | - |
| 8. | HSS 131 | Islamic civilization | 3 | 3 | - |
| 9. | HSS 132 | The history of the city of Jerusalem | 3 | 3 | - |
| 10. | HSS 133 | Civilization and recent cultures | 3 | 3 | - |
| 11. | HSS 135 | Islamic culture | 3 | 3 | - |
| 12. | HSS 137 | Human rights | 3 | 3 | - |
| 13. | HSS 153 | Islam and contemporary challenges | 3 | 3 | - |
| 14. | HSS 161 | Contemporary problems | 3 | 3 | - |
| 15. | HSS 211 | Sociology (in English) | 3 | 3 | - |
| 16. | HSS 213 | Individual and society | 3 | 3 | - |
| 17. | HSS 221 | Introduction to psychology (in English) | 3 | 3 | - |

| | | | | | |
|---|---------|---|---|---|---|
| 18. | HSS 231 | History of science in Islam | 3 | 3 | - |
| 19. | HSS 251 | Music tasting | 3 | 3 | - |
| 20. | LG 106 | Basic German language | 3 | 3 | - |
| Group two: Scientific and Agricultural | | | | | |
| 21. | ES 103 | Environnement protection (for non environnement sciences students) | 3 | 3 | - |
| 22. | ME 102 | Introduction to renewable energy | 3 | 3 | - |
| 23. | ME 211 | Fundamentals of automobile engineering (for non-ME students) | 3 | 3 | - |
| 24. | CHE 191 | Introduction to the Nanotechnology | 3 | 3 | - |
| 25. | NF 177 | Food preservation (in English) | 3 | 3 | - |
| 26. | AP 200 | Farm animal products (for non-agriculture and veterinary students) | 3 | 3 | - |
| 27. | PP 200 | Home gardens (for non-plant production and soil and irrigation students) | 3 | 3 | - |
| 28. | PP 201 | Beekeeping (for non-plant production students) | 3 | 3 | - |
| 29. | NR 200 | Natural resources and human (for non-plant production and soil and irrigation students) | 3 | 3 | - |
| 30. | NR 207 | Plant earth problems & solutions (for non-agriculture students) | 3 | 3 | - |
| 31. | NE 200 | Principles in nuclear energy and its peaceful applications | 3 | 3 | - |
| Group Three: Health | | | | | |
| 32. | NUR 100 | Health promotion (for non-medicine, non-nursing, and non-midwifery students) | 3 | 3 | - |
| 33. | ADS 100 | Oral and dental health (for non-dentistry and non-dentistry sciences students) | 3 | 3 | - |

| | | | | | |
|-----|---------|--|---|---|---|
| 34. | PH 104 | Community health and nutrition (for non-medicine, non-nursing, and non-midwifery students) | 3 | 3 | - |
| 35. | NUR 109 | Family health (for non-medicine, non-nursing, and non-midwifery students) | 3 | 3 | - |
| 36. | VM 211 | Animal health (not for veterinary medical and agriculture students) | 3 | 3 | - |
| 37. | VM 212 | Pet animal care (not for veterinary medical students) | 3 | 3 | - |
| 38. | VM 213 | Animal behavior and welfare | 3 | 3 | - |
| 39. | PT 100 | Wellness and life styles (for non-physical and occupational therapy students) | 3 | 3 | - |
| 40. | OT 100 | Disability and the society(not allowed for rehabilitation science dep. students) | 3 | 3 | - |

* Students are advised to enroll in HSS 221 Principles of psychology

B. Faculty Requirements: (24 credit hours) distributed as follows:

| Course No. | Course title | Credit hours | Theory | Lab. | Prerequisite or co-request |
|--------------|--|--------------|-----------|----------|----------------------------|
| BT 103 | General biology | 3 | 3 | -- | --- |
| BT 107 | General biology practical | 1 | -- | 1 | BT 103 (or co) |
| CHEM 103 | General chemistry | 3 | 3 | -- | --- |
| CHEM107 | General chemistry lab | 1 | -- | 1 | CHEM 103 (or co) |
| PT 218 | Gross anatomy and histology | 3 | 2 | 1 | BT 103, BT 107 |
| MED 230a | Human physiology | 3 | 3 | -- | BT 103 |
| MED 230b | Human physiology Lab | 1 | -- | 1 | MED 230A (or co) |
| PH 311 | Biostatistics | 2 | 2 | -- | --- |
| PARA 391 | Ethics in applied medical careers | 1 | 1 | -- | --- |
| ADS 491 | Administration and quality assurance in applied medical sciences | 3 | 3 | -- | --- |
| LM 491 | Scientific research methods | 1 | 1 | -- | PH 311 |
| LM 493 | Research project | 2 | -- | 2 | LM 491(or co) |
| Total | | 24 | 18 | 6 | |

C. Department requirements: (84 Credit Hours) distributed as follows:

1. Department requirement Courses from the Faculty of Science and Arts (3 credit hours); distributed as follows:

| Course No. | Course title | Credit hours | Theoretical | Lab | Prerequisite |
|--------------|-----------------|--------------|-------------|-----|--------------|
| PHY 103 | General physics | 3 | 3 | - | -- |
| TOTAL | | 3 | 3 | - | |

2. Department obligatory requirements for the program of physical therapy (75credit hours); courses are distributed as follows:

| Course No. | Course title | Credit hours | Theoretical | Lab | Prerequisite | Corequisite |
|------------|---|--------------|-------------|-----|-------------------------|-------------|
| PT 102 | Introduction to physical therapy | 1 | 1 | - | - | -- |
| PT 201 | Musculoskeletal anatomy | 2 | 2 | - | PT 218 | -- |
| LM 202 | Pathology | 3 | 3 | - | PT 218, MED 230A,B | |
| PT 203 | Musculoskeletal anatomy practical | 1 | - | 1 | -- | PT 201 |
| PT 205 | Biomechanics | 2 | 2 | - | PHY 103 PT 203 or co | -- |
| OT 205 | Human development and psychology | 2 | 2 | - | -- | -- |
| PT 206 | Kinesiology | 2 | 2 | - | PT 205 | -- |
| PT 207 | Exercise physiology | 3 | 3 | - | MED 230a | -- |
| PT 208 | Kinesiology practical | 1 | - | 1 | -- | PT 206 |
| PT 210 | Introduction to clinical medicine | 2 | 2 | - | LM 202 | |
| PT 214 | Introduction to clinical medicine practical | 1 | - | 1 | -- | PT 210 |
| PT 221 | Musculoskeletal assessment | 1 | 1 | - | PT 203 or co | -- |

| | | | | | | |
|--------|--|---|---|---|---------------------|--------|
| PT 223 | Musculoskeletal assessment practical | 1 | - | 1 | -- | PT 221 |
| PT 226 | Neuroscience I | 3 | 2 | 1 | PT 218, MED 230A | |
| PT 231 | Physical modalities | 2 | 2 | - | MED 230a | -- |
| PT 232 | Therapeutic exercises | 2 | 2 | - | PT 207 or co, PT223 | -- |
| PT 233 | Physical modalities practical | 1 | - | 1 | -- | PT 231 |
| PT 234 | Therapeutic exercises practical | 1 | - | 1 | -- | PT 232 |
| PT 242 | Physical therapy in orthopedics 1 | 2 | 2 | - | PT 223 | -- |
| PT 244 | Physical therapy in orthopedics 1 practical | 1 | - | 1 | -- | PT242 |
| PT 311 | Imaging and diagnostic tools | 2 | 2 | - | PT 203, PT 226 | -- |
| PT 313 | Pharmacology | 2 | 2 | - | LM 202 or co | -- |
| PT 341 | Physical therapy in orthopedics 2 | 2 | 2 | - | PT 244 | -- |
| PT 343 | Physical therapy in orthopedics 2 practical | 1 | - | 1 | -- | PT 341 |
| PT 345 | Prosthetics and orthotics | 1 | 1 | - | PT 203 | -- |
| PT 347 | Prosthetics and orthotics practical | 1 | - | 1 | -- | PT 345 |
| PT 351 | Physical therapy in neurology 1 | 2 | 2 | - | PT 226 | -- |
| PT 353 | Physical therapy in neurology 1 practical | 1 | - | 1 | -- | PT 351 |
| PT 354 | Physical therapy in neurology 2 | 2 | 2 | - | PT 353 | -- |
| PT 356 | Physical therapy in neurology 2 practical | 1 | - | 1 | -- | PT 354 |
| PT 362 | Physical therapy in cardiopulmonary diseases | 3 | 3 | - | LM 202, PT 207 | -- |
| PT 364 | Physical therapy in cardiopulmonary diseases practical | 1 | - | 1 | -- | PT 362 |
| PT 372 | Physical therapy in surgical conditions and burns | 2 | 2 | - | PT 233, PT 234 | -- |
| PT 380 | Physical therapy in pediatrics | 3 | 3 | - | OT205 | -- |

| | | | | | | |
|--------------|---|-----------|-----------|-----------|------------------------------|----|
| PT 392 | Introduction into clinical practice in physical therapy | 2 | - | 2 | PT223, PT234 | -- |
| PT 481 | Physical therapy in geriatrics | 2 | 2 | - | OT 205, PT 214 | -- |
| PT 491 | Clinical training in pediatrics 1 | 2 | - | 2 | PT 380, PT 392 | -- |
| PT 492 | Clinical training in pediatrics 2 | 2 | - | 2 | PT 491 | -- |
| PT 493 | Clinical training in orthopedics 1 | 2 | - | 2 | PT 392, PT 343 | -- |
| PT 494 | Clinical training in orthopedics 2 | 2 | - | 2 | PT 493 | -- |
| PT 495 | Clinical training in neurology 1 | 2 | - | 2 | PT 392, PT 356 | -- |
| PT 496 | Clinical training in neurology 2 | 2 | - | 2 | PT 495 | -- |
| PT 497 | Clinical training in cardiopulmonary | 2 | - | 2 | PT 364, PT 392 | -- |
| PT 498 | Advanced clinical training | 5 | | 5 | PT 491, PT 493, PT 495 | -- |
| TOTAL | | 81 | 47 | 34 | | |

Study Plan

| FIRST YEAR | | | | | | | | | | | | | |
|----------------|---------------------------------|---------------|--------------|----------|--|-------------|-----------------|----------------------------------|---------------|--------------|----------|------------------|-------------|
| First semester | | | | | | | Second semester | | | | | | |
| Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite | Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite |
| | | | Lecture | Lab | | | | | | Lecture | Lab | | |
| ARB 101 | Arabic language | 3 | 3 | - | -- | -- | MS 100 | Military sciences | 3 | 3 | - | -- | -- |
| HSS 100 | Culture and University behavior | 1 | 1 | - | -- | -- | Cls 100 | Computer skills | 3 | 2 | 3 | -- | -- |
| BT 103 | General biology | 3 | 3 | - | -- | -- | LG 112 | English language 2 | 3 | 3 | - | LG 111 | -- |
| BT 107 | General biology practical | 1 | - | 2 | BT 103 (or co) | -- | PT 218 | Gross anatomy and histology | 3 | 2 | 2 | BT 103, BT 107 | -- |
| CHEM 103 | General chemistry | 3 | 3 | - | -- | -- | MED 230a | Human physiology | 3 | 3 | - | BT 103 | -- |
| HSS 110 | Social Responsibility | 3 | 2 | 1 | - | -- | MED 230b | Human physiology Lab | 1 | - | 3 | MED 230a (or co) | -- |
| PHY 103 | General physics | 3 | 3 | - | -- | -- | PT 102 | Introduction to physical therapy | 1 | 1 | - | -- | -- |
| LG 112 | English language 2 | 3 | 3 | - | Passing LG 099 or passing English Language Placement Test with a grade > 50% | -- | CHEM 107 | General chemistry lab | 1 | - | 2 | CHEM 103 (or co) | -- |
| Total | | 18 | 16 | 4 | | | Total | | 17 | 14 | 8 | | |

| SECOND YEAR | | | | | | | | | | | | | |
|----------------|--------------------------------------|---------------|--------------|----------|-----------------------|-------------|-----------------|---|---------------|--------------|-----------|------------------------|-------------|
| First semester | | | | | | | Second semester | | | | | | |
| Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite | Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite |
| | | | Lecture | Lab | | | | | | Lecture | Lab | | |
| LM 202 | Pathology | 3 | 3 | -- | PT 218, MED 230a, b | -- | PT 226 | Neuroscience 1 | 3 | 2 | 2 | PT 218, MED 230a | -- |
| OT 205 | Human development and psychology | 2 | 2 | - | -- | -- | PT 206 | Kinesiology | 2 | 2 | - | PT 205 | -- |
| PT 201 | Musculoskeletal anatomy | 2 | 2 | -- | PT 218 | -- | PT 208 | Kinesiology practical | 1 | - | 2 | -- | PT 206 |
| PT 203 | Musculoskeletal anatomy practical | 1 | -- | 2 | -- | PT 201 | PT 210 | Introduction to clinical medicine | 2 | 2 | - | LM 202 | -- |
| PT 205 | Biomechanics | 2 | 2 | - | PHY 103, PT 203 or co | -- | PT 214 | Introduction to clinical medicine practical | 1 | - | 2 | -- | PT 210 |
| PT 207 | Exercise physiology | 3 | 3 | - | MED 230a | -- | PT 232 | Therapeutic exercises | 2 | 2 | - | PT 207 (or co), PT 223 | -- |
| PT 221 | Musculoskeletal assessment | 1 | 1 | - | PT 203 or co | -- | PT 234 | Therapeutic exercises practical | 1 | - | 3 | -- | PT 232 |
| PT 223 | Musculoskeletal assessment practical | 1 | - | 3 | -- | PT 221 | PT 242 | Physical therapy in orthopedics 1 | 2 | 2 | - | PT 223 | -- |
| PT 231 | Physical modalities | 2 | 2 | - | MED 230a | -- | PT 244 | Physical therapy in orthopedics 1 practical | 1 | - | 3 | -- | PT 242 |
| PT 233 | Physical modalities practical | 1 | - | 3 | -- | PT 231 | | University elective | 3 | 3 | - | -- | -- |
| Total | | 18 | 15 | 8 | | | Total | | 18 | 13 | 12 | | |

| THIRD YEAR | | | | | | | | | | | | | |
|----------------|---|---------------|--------------|----------|----------------|-------------|-----------------|---|---------------|--------------|-----------|----------------|-------------|
| First semester | | | | | | | Second semester | | | | | | |
| Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite | Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite |
| | | | Lecture | Lab | | | | | | Lecture | Lab | | |
| PT 311 | Imaging and Diagnostic Tools | 2 | 2 | - | PT 203, PT 226 | -- | PT 354 | Physical therapy in neurology 2 | 2 | 2 | - | PT 353 | -- |
| PT 313 | Pharmacology | 2 | 2 | - | LM 202 or co | -- | PT 356 | Physical therapy in neurology 2 practical | 1 | - | 3 | -- | PT 354 |
| PT 341 | Physical therapy in orthopedics 2 | 2 | 2 | - | PT 244 | -- | PT 362 | Physical therapy in cardiopulmonary diseases | 3 | 3 | - | LM 202, PT 207 | -- |
| PT 343 | Physical therapy in orthopedics 2 practical | 1 | - | 3 | -- | PT 341 | PT 364 | Physical therapy in cardiopulmonary diseases practical | 1 | - | 3 | -- | PT 362 |
| PT 345 | Prosthetics and orthotics | 1 | 1 | - | PT 203 | -- | PT 372 | Physical therapy in surgical conditions and burns | 2 | 2 | - | PT233, PT 234 | -- |
| PT 347 | Prosthetics and orthotics practical | 1 | - | 2 | -- | PT 345 | PT 380 | Physical therapy in pediatrics | 3 | 3 | - | OT 205 | -- |
| PT 351 | Physical therapy in neurology 1 | 2 | 2 | - | PT 226 | -- | PT 392 | Introduction into clinical practice in physical therapy | 2 | - | 6 | PT 223, PT 234 | -- |
| PT 353 | Physical therapy in neurology 1 practical | 1 | - | 3 | -- | PT 351 | | University elective | 3 | 3 | - | -- | -- |
| PH 311 | Biostatistics | 2 | 2 | -- | -- | -- | | | | | | | |
| PARA 391 | Ethics in applied medical careers | 1 | 1 | -- | -- | -- | | | | | | | |
| | University elective | 3 | 3 | - | -- | -- | | | | | | | |
| Total | | 18 | 15 | 8 | | | Total | | 17 | 13 | 12 | | |

| FOURTH YEAR | | | | | | | | | | | | | |
|----------------|--|---------------|--------------|-----------|----------------|-------------|-----------------|------------------------------------|---------------|--------------|-----------|------------------------|-------------|
| First semester | | | | | | | Second semester | | | | | | |
| Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite | Course No. | Course name | Total credits | Weekly hours | | Prerequisite | Corequisite |
| | | | Lecture | Lab | | | | | | Lecture | Lab | | |
| PT 481 | Physical therapy in geriatrics | 2 | 2 | - | PT 214, OT 205 | -- | PT 492 | Clinical training in pediatric 2 | 2 | - | 6 | PT 491 | -- |
| PT 491 | Clinical training in pediatrics 1 | 2 | - | 6 | PT 380, PT 392 | -- | PT 494 | Clinical training in orthopedics 2 | 2 | - | 6 | PT 493 | -- |
| PT 493 | Clinical training in orthopedics 1 | 2 | - | 6 | PT 392, PT 343 | -- | PT 496 | Clinical training in neurology 2 | 2 | - | 6 | PT 495 | -- |
| PT 495 | Clinical training in neurology 1 | 2 | - | 6 | PT 392, PT 356 | -- | PT 498 | Advanced clinical training | 5 | - | 15 | PT 491, PT 493, PT 495 | -- |
| PT 497 | Clinical training in cardiopulmonary | 2 | - | 6 | PT 364, PT 392 | -- | LM 493 | Research project | 2 | 2 | - | LM 491 or co | -- |
| ADS 491 | Administration and quality assurance in applied medical sciences | 3 | 3 | - | -- | -- | | | | | | | |
| LM 491 | Scientific research methods | 1 | 1 | - | PH 311 | -- | | | | | | | |
| Total | | 14 | 6 | 24 | | | Total | | 13 | 2 | 33 | | |

Course Description

PT 102 Introduction to physical therapy (1 C.H.)

Students will explore the fundamental knowledge required in the physical therapy profession. Issues related to code of ethics, models of care, communication, documentation, and rehabilitation team are addressed.

PT 201 Musculoskeletal anatomy (2 C.H.) (Pre-req: PT 218)

The course covers the axial and appendicular skeleton, articular and muscular systems in terms of structural and functional anatomy of bones, joints, muscle origins, insertions, innervation and blood supply.

PT 203 Musculoskeletal anatomy practical (1 C.H.) (Co: PT 201)

Students will visualize, label, and palpate the bony landmarks, joint structures, muscle attachments, innervations, and circulatory pathways.

PT 205 Biomechanics (2 C.H.) (Pre-req: PHY 103, PT 203 or co.)

Comprehensive understanding of the mechanical principles of musculoskeletal function and human movement is addressed. Principles of stresses and strains in human tissue will be discussed. Posture and gait analysis will be covered.

OT 205 Human development and psychology (2 C.H.)

This course covers all developmental and growth stages from early childhood to late older adulthood, which includes: physical, motor, cognitive, communication and psychosocial development. Course also covers the development of play and related theories. It's also discusses practical application to aid in the development in all the above areas based on various theories and models.

PT 206 Kinesiology (2 C.H.) (Pre-req: PT 205)

Analysis of biomechanical principles of motor control for human movements with understanding of lifting, reaching, and grasping. Additionally, concepts including muscle roles, kinematic chain movements, and muscle insufficiency will be discussed.

PT 207 Exercise physiology (3 C.H.) (Pre-req: MED 230a)

Understanding of the acute responses and chronic adaptations of the cardiovascular, respiratory, endocrine, musculoskeletal, and metabolic systems to exercise. Principles of training and prescription for aerobic, resistance, and stretching exercises will be discussed.

PT 208 Kinesiology practical (1 C.H.) (Co: PT 206)

Practical demonstration of kinesiological concepts including lifting, reaching, grasping, muscle roles, kinematic chain movements, and muscle insufficiency as well as normal gait analysis.

PT 210 Introduction to clinical medicine (2 C.H.) (Pre-req: LM 202)

This course introduces fundamental knowledge about different disorders in terms of pathophysiology, diagnosis and medical treatment. This includes respiratory disorders, cardiovascular disorders, endocrine and renal disorders, integumentary system, tumors, diabetes, gastrointestinal tract disorders, liver and pancreas disorders, neurological disorders, immunological disorders and hematological disorders. The course also introduces fundamental knowledge about palliative care, pain pathophysiology and management and psychological conditions.

PT 214 Introduction to clinical medicine practical (1 C.H.) (Co: PT 210)

Skills related to medical screening, measurements of heart rate, blood pressure, respiratory rate, respiratory function will be covered. Additionally skills related to cardiopulmonary resuscitations, management of infectious diseases, assessment and evaluation of integumentary system as well as wound management will be addressed.

PT218 Gross Anatomy and Histology (3 C.H.; 2 theories, 1 practical) (Pre-req: BT103, BT107)

This course aims to understand the human body structure and function through anatomical observation, train students to read the original books, learn basic body structure, inspire students' interest in allied Health Sciences, and handle experiments in groups to conduct the implementation and observation, to achieve induction training of the course

PT 221 Musculoskeletal assessment (1 C.H.) (Pre-req: PT 203 or co)

Understanding the evaluation of muscular strength, joint range of motion, cardiovascular endurance, gait and posture. Additionally, methods and equipment used to measure these variables will be identified.

PT 223 Musculoskeletal assessment practical (1 C.H.) (Co: PT 221)

Students will practice evaluating muscular strength and endurance, joint range of motion, cardiovascular endurance, gait and posture.

PT226 Neuroscience 1 (3 C.H.; 2 theories, 1 practical) (Pre-req: PT 218, MED 230A)

This course provides students with a comprehensive overview of the field of neuroscience, with a focus on neuroanatomy, that will serve as a solid foundation for future courses

PT 231 Physical modalities (2 C.H.) (Pre-req: MED 230 a)

Studying the physiological effects and clinical applications of thermal and cryo agents, laser, electrotherapy and hydrotherapy. Additionally, the principles and techniques massage will be discussed.

PT 232 Therapeutic exercises (2 C.H.) (Pre-req: PT 207 or co, PT 223)

Understanding the principles, goals, indications, and contraindications for various exercise modes. The techniques and applications for range of motion, stretching, resistive, mobilization, balance, aquatic, and aerobic exercises will be explained.

PT 233 Physical modalities practical (1 C.H.) (Co: PT 231)

The students will practice applying physical modalities including thermal and cryo agents, laser, electrotherapy, hydrotherapy and massage.

PT 234 Therapeutic exercises practical (1C.H.) (Co: PT 232)

Students will practice prescribe and apply various exercise modes including range of motion, stretching, resistive, mobilization, balance, aquatic, and aerobic exercises.

PT 242 Physical therapy in orthopedics 1 (2 C.H.) (Pre-req: PT 223)

Understanding the knowledge and skills of physical therapy assessment, differential diagnosis, and interventions related to individuals with orthopedic conditions of upper limbs and lower limbs.

PT 244 Physical therapy in orthopedics 1 practical (1C.H.) (Co: PT 242)

Student will practice the skills of physical therapy assessment, differential diagnosis, and interventions related to individuals with orthopedic conditions of upper limbs and lower limbs.

PT 311 Imaging and diagnostic tools (2 C.H.) (Pre-req: PT 203 and PT 226)

Understanding the principles of interpreting medical imaging. The diagnostic tools including x-ray, CT-scan, MRI, fMRI, nerve conduction studies, EMG, EEG, MEG, PET and NIRS will be covered.

PT 313 Pharmacology (2 C.H.) (Pre-req: LM 202 or co)

List of most common medications affecting musculoskeletal, nervous, cardiovascular, respiratory and metabolic systems in terms of their pharmacokinetics, uses, and their side effects.

PT 341 Physical therapy in orthopedics 2 (2 C.H.) (Pre-req: PT 244)

Understanding the knowledge and skills of physical therapy assessment, differential diagnosis, and interventions related to individuals with orthopedic conditions of lumber and cervical spine.

PT 343 Physical therapy in orthopedics 2 practical (1 C.H.) (Co: PT 341)

Student will practice the skills of physical therapy assessment, differential diagnosis, and interventions related to individuals with orthopedic conditions of lumber and cervical spine.

PT 345 Prosthetics and orthotics (1 C.H.) (Pre-req: PT 203)

The course focuses on prescription and design of orthoses, braces, and artificial limbs. Appropriate use and maintenance of the orthoses and prosthesis will also be addressed

PT 347 Prosthetics and orthotics practical (1 C.H.) (Co: PT 345)

Practicing the principle of prescribing, designing, using and maintaining common orthoses and prosthesis.

PT 351 Physical therapy in neurology 1 (2 C.H.) (Pre-req: PT 226)

Understanding the physical therapy assessment and intervention techniques for neurological conditions and diseases.

PT 353 Physical therapy in neurology 1 practical (1 C.H.) (Co: PT 351)

Students will practice the physical therapy assessment and intervention techniques for neurological conditions and diseases.

PT 354 Physical therapy in neurology 2 (2 C.H.) (Pre-req: PT 353)

Understanding the pathophysiology and prognosis of different neurological conditions. Utilizing various assessment and interventions techniques for the management of neurological conditions will be emphasized.

PT 356 Physical therapy in neurology 2 practical (1 C.H.) (Co: PT 354)

Case studies will be provided for students to discuss and practice the related physical therapy assessment and intervention techniques for neurological conditions and diseases.

PT 362 Physical therapy in cardiopulmonary diseases (3 C.H.) (Pre-req: PT 207, LM 202)

This course includes understanding of primary and secondary prevention, and rehabilitation in the management cardiovascular/pulmonary diseases, with emphasis on the etiology and pathology. Exercise testing, ECG, and designing specialized programs in cardiovascular diseases are also addressed.

PT 364 Physical therapy in cardiopulmonary diseases practical (1 C.H.) (Co: PT 362)

Common laboratory and diagnostic tests, ECG, and rehabilitation approaches will be practiced.

PT 372 Physical therapy in surgical conditions and Burns (2 C.H.) (Pre-req: PT 233, PT 234)

Acquiring knowledge about surgical procedures and burn types. Assessment, and pre/post-operation management with emphasis on rehabilitation protocols for surgical procedures and burns will be covered.

PT 380 Physical therapy in pediatrics (3 C.H.) (Pre-req: OT 205)

Introducing rehabilitative methods and tools to examine, evaluate and treat pediatrics. The pathophysiology of common disorders in children will be covered.

PT 392 Introduction to clinical practice in physical therapy (2 C.H.) (Pre-req: PT 223, PT 234)

Observing assessment and management for patients with orthopedic, neurological, and cardiopulmonary disorders in clinical facilities. Understanding the local system in terms of referral, policies, roles and regulations, and patient documentation will be practiced.

PT 481 Physical therapy in geriatrics (2 C.H.) (Pre-req: PT 214, OT 205)

Understanding age-related physiological and pathological changes. Concerns related to physical therapy in geriatric population will be emphasized. Services provided by the health care system and community as well as future needs for the geriatric population will be covered.

PT 491 Clinical training in pediatrics 1 (2 C.H.) (Pre-req: PT380, PT 392)

Observing assessment and management for pediatric patients in clinical facilities.

PT 492 Clinical training in pediatrics 2 (2 C.H.) (Pre-req: PT 491)

Practicing assessment and management for pediatric patients in clinical facilities.

PT 493 Clinical training in orthopedics 1 (2 C.H.) (Pre-req: PT 343, PT 392)

Observing assessment and management for patients with musculoskeletal and rheumatological conditions in clinical facilities.

PT 494 Clinical training in orthopedics 2 (2 C.H.) (Pre-req: PT 493)

Practicing assessment and management for patients with musculoskeletal and rheumatological conditions in clinical facilities.

PT 495 Clinical training in neurology 1 (2 C.H.) (Pre-req: PT 356, PT 392)

Observing assessment and management for patients with neurological disorders in clinical facilities.

PT 496 Clinical training in neurology 2 (2 C.H.) (Pre-req: PT 495)

Practicing assessment and management for patients with neurological disorders in clinical facilities.

PT 497 Clinical training in cardiopulmonary (2 C.H.) (Pre-req: PT364 and PT 392)

Practicing assessment and management for patients with cardiopulmonary disorders in clinical facilities.

PT 498 Advanced clinical training (2 C.H.) (Pre-req: PT 491, PT 493, PT 495)

Practicing assessment and management for patients with orthopedic, neurological, and cardiopulmonary disorders in clinical facilities with minimal supervision to gain sound appraisal and independency during clinical performance.