جامعة هليوبوليس
Heliopolis University
for Sustainable Development

Undergraduate
Internal Bylaw and Curricula
Heliopolis University
(Credit Hour System)

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3 Cairo-Belbeis Desert Road, P.O. Box: 2834 El-Horreya, Cairo, Egypt, Tel.:(+202) 265 65 930, Fax: (+202) 265 88 123
Hotline: 16418 – Facebook.com/heliopolis .university
www.hu.edu.eg

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In the Name is Allah, the Creator, the merciful

"All who have meditated on the art of governing mankind have been convinced that the fate of empires depends on the education of youth." **(Aristotle)**

Preface

Heliopolis University for Sustainable Development (HUSD) was established in 2009 by the Presidential Decree number 298/2009 with three degree-granting faculties: Faculty of Engineering, Faculty of Business & Economics, and Faculty of Pharmacy and Drug Technology.

The study at Heliopolis University started in the academic year 2012-2013 with the aim to pioneer introducing the concepts and principles of sustainable development to the students and the Egyptian community. Sustainable development refers to the challenges of reducing global inequity and improving wellbeing, while reducing threats to the earth's systems from industrialized production and consumption.

Heliopolis University strives for the Sustainable Development consciousness, economic solidarity, social responsibility, and environmental balance in Egypt and the world. The degree programs offered at Heliopolis University addresses key topics and theories of sustainable development through a multi-disciplinary renewed approach that integrates teaching, learning, research, and practice. In addition, Heliopolis University offers a unique Core Program that is crucial for sustainability and human development.

Heliopolis University motivate the students to develop understanding and relate to their social, economic, scientific, and political surroundings. It abets them to evaluate the knowledge and practices concerning sustainable development affecting opportunities for community development and scientific growth in Egypt and in the world.

Chapter 1

University Strategy

Vision

Heliopolis University is a pioneer scientific establishment strives for the sustainable development of individual consciousness, economic solidarity, social justice, and environmental balance in Egypt and the world.

Mission

At Heliopolis University, we empower our students to be the champions of sustainable development in different spheres of life. We provide a place where new ideas meet fertile ground for further research and teaching. Our education combines teaching, research, and practice with a uniquely humanistic core program, developing curious and creative mind.

Aims

1. Provide a high quality and challenging educational and research experience in which students can develop both individually and intellectually.
2. Enable students to gain a broad understanding of the issues related to sustainable development and relevant scientific disciplines.
3. Develop students' key ethical values that will enable them to be competitive in the job market and/or manage their own enterprises with a vision to unceasingly contribute to community development.
4. Help students to identify and achieve their own individual goals and make a valuable contribution to their society, and to the world at large.
5. Develop independent person immersed in the humanities who can identify and resolve problems creatively, individually, and communally.

Strategic Objectives

1. Establishing a welcoming environment.
2. Providing state of the art facilities.
3. Establishing a research based University.
4. Including qualified national and international professors.

5. Providing meaningful, rich, and exciting student activities.
6. Focusing on promoting sustainable development concepts within the educational program, in order to ensure that all courses teach the concept well and appropriately.
7. Promoting, inviting and welcoming contributors in the field of sustainability and working closely with other higher education Egyptian and non-Egyptian institutions.
8. Implement the most modern and advanced management techniques to provide the best services for the students.

Chapter 2

General Concepts and Terminology

Article 1: The Official Name

These regulations shall be cited as "***Heliopolis University Internal Bylaw and Curricula***"

Article 2: Terminology

The following terms have the associated meaning beside each:

University	: Heliopolis University for Sustainable Development (HUSD).
University Council	: Heliopolis University Council.
Regulations	: Heliopolis University Academic Regulations.
Credit hour	: A standard unit of measurement used to specify course load per semester in relation to other courses.
Contact hour	: Actual amount of time elapsed in a lecture, laboratory, etc.
Academic program	: Knowledge that leads to a scientific degree.
Study plan	: The courses list that is required for a study program to gain a scientific degree.
Faculty	: One of the faculties of Heliopolis University.
Academic year	: The academic year consists of three semesters; fall and spring semesters in addition to an elective summer semester.
Study load	: The group of credit hours that the student registers in per semester.
Scientific degree	: The awarded degree after completing its requirements.

Article 3: Provision

Provision of these regulations shall be applicable to the regular students registered for a scientific degree at the University by the next year after issuing the ministerial decree.

Article 4: University Faculties

Heliopolis University includes the following faculties:

1. Faculty of Engineering
2. Faculty of Business and Economics
3. Faculty of Pharmacy
4. Faculty of Physical Therapy
5. Faculty of Organic Agriculture

It is also possible to establish new faculties after completing all the required procedures.

Chapter 3

Admission Regulations

Article 5: Admission General Requirements

Heliopolis University fully complies with the admission regulations of the Private Universities Council of the Ministry of Higher Education (HUSD). HUSD receives students twice a year; in the fall and spring semesters. Students must apply for admission during the official application period, which is announced by the University's Admission Office. Students applying for admission at a University faculty must meet the following requirements:

1- Should be Egyptian. Non-Egyptian students can also be accepted according to the related rules.
2- Must be graduated from the general secondary school or equivalent. Students join faculties through a competitive process, based mainly on the results of the secondary school Final Exam (*Thanaweya Amma*). It is also possible for graduate students to apply for admission.
3- Should pass the Admission Exam.
4- Must enroll as full-time student; otherwise the student must have permanent permission from his/her workplace to accommodate the of Attendance Policy at the university.
5- All kinds of required fees must be paid in full.

Article 6: Admission Documents

The following documents are required for Admission:

1- An original copy of the results of the secondary school Final Exam.
2- An original copy of the birth certificate.
3- Six recent passport size photos of size 4X6.
4- A signed medical investigation document.
5- Military Service Form No.2 for Egyptian male students.
6- Sports Incentive Certificate for eligible students.
7- Any other document(s) that might be required by the faculty.

Article 7: Scientific Degree Awarding

According to the request of the Faculty Councils, the University awards the Bachelor's degree in one of the fields of specialization that are offered by the faculties after completing the degree requirements. These degrees are:

- B.Sc. Degree in Engineering (According to the Academic Program).
- B.Sc. Degree in Business and Economics (According to the Academic Program).
- B.Sc. Degree in Pharmacy and Drug Technology.
- B.Sc. Degree in Physical Therapy
- B.Sc. Degree in Organic Agriculture (According to the Academic Program).

Chapter 4

Study and Registration System

Article 8: Educational System

Heliopolis University applies the credit-hour system in all programs. Accordingly, the academic year is divided into two semesters of 15 weeks each; fall semester and spring semester, in addition to one non-compulsory Summer Semester of 7 weeks.

Article 9: Credit hours / Contact hours

The Credit Hour is a standard unit of measurement used to specify course load per semester in relation to other courses. The Contact Hour is the actual time of a lecture, laboratory, etc.

Each credit hour equates to:

50 contact minutes per week of theoretical lectures,
100 contact minutes per week of either tutorial or practical classes, and
150 contact minutes per week of workshops.

Article 10: Academic Programs

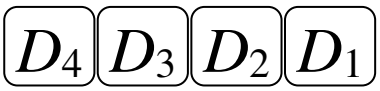
The study plan in each faculty contains one or more academic programs, which lead to a Bachelor's degree in the major field of program. The faculty should offer one or more groups for each course in the academic program. These course groups should be offered in different time slots, location and lecturer. The academic program leads to a scientific degree. The student should be able to choose a group of courses that improve his/her skills in minor specialization within the major specialization of the program.

Article 11: Graduation Minimum Credit Hours Required

The minimum number of credit hours required for graduation is specified in the study plan of each faculty for each program. Generally, it ranges from 130 Cr to 180 Cr, depending on each program.

Article 12: Course Coding

Each course has a unique code (number). This number contains information about the faculty and specialization of the study program. It also contains information about the level of the course in the study program. As shown in the following figure, the course number is a 4-digit code, in which each digit has a special meaning as follows:



D_4 specifies the faculty code; 0 for University requirement (core program) courses, and 1 for the faculty of Engineering, 2 for the Faculty of business and economics, and 3 for the Faculty of Pharmacy and drug technology,4 for the Faculty of Physical Therapy, 5 for the Faculty of Organic Agriculture, etc.

D_3 specifies the code of the scientific department in the faculty that offers this course. The value of this digit may have a number from1 to 9.

D_2 specifies the group level inside the department. The value of this digit may have a number from 0 to 9.

D_1 specifies the course level inside the group, either mandatory or elective. The value of this digit may have a number from 0 to 9.

Article 13: Academic Program Curriculum

The curriculum of all academic programs in the University includes the following group of courses:

(a) **University requirements (Mandatory Core Program):** Is a group of 12 credit hours courses to develop the personality of students. They *must be completed* by all students as part of the graduation requirements for the chosen field of specialization.

(b) **University requirements (Elective Core Program):** are 6 credit hours group of designated courses that students can *select from* in order to complete the university elective courses requirements in their program.

(c) **Faculty Requirements:** are offered by the faculty council and approved by the University Council. These requirements include a number of credit hours distributed over mandatory and elective courses as specified by the faculty council.

(d) **Academic program requirements:** are offered by the faculty council and approved by the University Council. These requirements include a number of credit hours distributed over mandatory and elective courses as specified by the faculty council.

Article 14: Academic Advising

The Academic Advisor is a faculty member who is assigned the responsibility of monitoring and coaching a group of students as well as assisting them in developing their study plans and schedules.

The Academic Advisor assists students in other academic issues or problems encountered throughout their study period. The Academic Advisor also validates the Registration/Add/Drop forms.

Article 15: Program Coordinator

The Program Coordinator is a faculty member appointed by the faculty dean (usually the department head of the student's chosen program) and assigned the responsibility of organizing the registration process and its requirements as well as the responsibility of facilitating the communication between the faculty, the academic advisors and the university administration office regarding all academic matters.

Article 16: Registration

Registration dates are published in the academic calendar and semester schedules for both new and continuing students. At registration, students will meet with the Academic Advisors to select courses appropriate to their study plan. The Academic Advisors will assist and validate the students' completion the Registration Form.

The student is considered to be enrolled after he or she presents all the required documents to the Registration Office and pays the outstanding fees.

The Registration Office generates individual student academic files for all students. This file contains the student's official documents: Semester Enrollment Forms, Semester Academic Transcript, and other documents including medical certificates, academic warnings, Add and Drop Forms, etc. The student's academic file is updated at the end of each semester.

The Program Coordinators and Academic Advisors must have copies of these files to follow up the students' academic progression with the academic advisors.

Article 17: Course Prerequisite

Successful completion of a course's applicable prerequisite course(s) is a must for registration in a course. This rule might be violated in justifiable conditions advised by a recommendation from the faculty dean and approved by the University Vice president.

Article 18: Study Load

The student is responsible for the study load that is adequate to his/her abilities and comprehension. The Academic Advisor examines the student's records to advise him/her to take a number of courses appropriate to his/her academic achievement at the faculty with consideration to the following:

1. The maximum number of credit hours is 18 per week during the fall and spring semesters. This number of credit hours may however reach 21 if the Student's GPA is 3 or more. This may be changed if the student is expected to graduate in the semester and advised by the student's academic advisor.
2. In the summer semester, the maximum number of credit hours is 7.
3. The faculty council must approve other cases of violating the credit limits

Article 19: Course Registration, Add and Drop Deadlines

With due observance of maximum and minimum study load, the following is to be considered.

1. Semester registration is completed during the first week of the semester and classes start at the beginning of the second week.
2. Student may Add, and/or Drop any course before the deadline, which is the second week of any semester.
3. Summer Semester Course(s) Registration, Add, and Drop should be completed during the first week, and classes start the beginning of third day in the first week.

Students should fill in the Registration, Add, and Drop Forms and have them approved by the Academic Advisors. These forms are then submitted to the Registration Office.

Article 20: Courses Withdrawal

Students can withdraw from any course after an approval by the academic advisor and before the withdrawal deadline (the 8th week for the fall and spring semesters, and 4th week for the summer semester). A grade of "*W*" for that course will be given and it and will be excluded from the GPA calculation, provided that the student didn't exceed the attendance limit.

If the withdrawal is done after the withdrawal deadline period, a grade of "*F*" will be applied, indicating failure in the course.

Article 21: Semester Withdrawal

1. A student can withdraw from a complete semester after having an advisor's signature for semester withdrawal. The withdrawal form must be submitted before the end of the 10th week for the fall and spring semesters, and 5th week for the summer semester. The faculty council must approve this withdrawal**.**

2. The faculty council may consider the semester withdrawal request forms that submitted after the withdrawal period mentioned in the first paragraph and the council has to take the suitable decision.
3. The total number of withdrawn semesters must not exceed four (4) semesters.

Article 22: Admission Postponement

1. A newly enrolled student who does not register during the registration period is considered withdrawn from the semester. If the student does not register by the following semester he or she shall forfeit his/her place at the University.

2. A continuing student who does not register during the announced Registration, Add, and Drop period is considered withdrawn from the semester.
3. A student may postpone his/her admission at the University for one semester. The faculty dean must approve this, if the student submits his/her request during the registration period.

Article 23: Study Break

A continuing student who registered for a semester and breaks his/her study plan, and does not apply for semester withdrawal is considered to be absent.

Article 24: Changing Study Program

A student who decides to change his/her program of study, or apply for a new program, in the same faculty should discuss the program change with his/her Academic Advisor and the Program Coordinator.

The student must complete a request form for program change and get it approved from the faculty dean. If approved, credit earned in the previous program *may be* credited toward the new program upon evaluation by the coordinator of the new program.

Article 25: Credit Transfer

Upon the recommendation of the relevant program coordinator and the approval of the faculty council, students may be allowed to transfer some credits previously completed at other universities or faculties according to the following conditions:

1. Transferred credits are part of the degree requirements.
2. The final courses grade must be "*C*" minimum or equivalent.
3. The total credit hours of the transferred courses do not exceed 60% of the total credit hours required to obtain the relevant degree.

In the case that a student engages in an official exchange program between Heliopolis University and an external institution (either national or international), before engaging in this program, the academic advisor or the program coordinator must agree with this external institution the exact courses that the student will study. The courses should align with the student's study program and contribute towards the completion of the students overall Credit Hours and graduation. Furthermore, HU will abide by the grade distribution of the external institution and will record the Letter Grade provided by this institution. All courses taken during this excursion will be transferred after the completion of all administrative requirements.

All successfully transferred courses are accounted in the GPA calculation.

Article 26: Blended, & Distance Learning

It is allowed for some courses to be taught through blended distance learning facilities. These include television, internet, etc. In all cases, the final examination must be administered on campus at the university or at an approved examination center off-campus following university examination regulations and protocol. All related regulations of the blended learning are followed, including the face-to-face meetings, reports, case studies, and others.

Article 27: Student Attendance Policy

A student is required to attend all classes for all courses in which he/she registers. A student who is absent for more than 25% of the hours required for a course is given a warning that explains the consequences of not attending courses without a valid excused. A student, who is absent for more than 30% of the hours required for a course without a valid excuse acceptable to the faculty council, or a medical excuse, will be prohibited from taking all the following examinations scheduled for that course and shall be given grade "*F*".

Article 28: Warned Student Registration

A student who has an Academic Warning can register for a maximum of 10 Credit Hours during the following semester. With the approval of the faculty dean and according to the advice of the academic advisor, this student may register in certain conditions for more than this limit of study load.

Article 29: Maximum Study Period

The applied study system allows the students to complete their study program in the minimum time. However, the following restrictions should be considered:

1. The maximum period of a study program of less than or equal to 150 credit hours is 14 semesters, including the withdrawn semesters without counting the summer semesters.
2. The maximum period of a study program of greater than 150 credit hours is 18 semesters, including the withdrawn semesters without counting the summer semesters.
3. The university council may allow a student to exceed these maximum specified periods in justifiable cases subject to a recommendation from the faculty council.

Article 30: Special Credit Students

Special Credit Students are defined as students who wish to enroll in a course(s) to get some experience in the field of these courses but not pursue a degree, diploma, or certificate. Special Credit Students register officially at the University and pay regular tuition fees, but are not assigned Academic Advisors.

Students who wish to audit courses shall be admitted, upon space availability basis, and shall not displace credit-seeking students. In this case, no credit is awarded, and no examinations are administered. A grade "*AU*" is recorded to indicate 'Audit'.

Article 31: Dismissal from the University

A student is dismissed from Heliopolis University in one or more of the following cases:

1. If student exceeds the permitted number of withdrawal according to article (21).
2. If student gets two academic warnings during two consecutive semesters or when he/she gets three academic warnings according to article (48).
3. If student does not finish his/her studies in the maximum period defined by article (29).
4. If a decision has been taken against the student because of Conduct and/or Behavior Violation.
5. If student is prevented from attending the final examinations of all courses during two semesters.

Article 32: Registration Termination

A student who terminates his/her registration at the university has no right to register again except after submitting a new Application Form, and an official request stating clearly the reasons of his/her re-register, which must be approved by the faculty council, subjected that not more three years have passed after the termination. In case of approval, the student is to be treated as a continued student according to his/her previous position before the Registration Termination.

Article 33: Study Level

The following table indicates the student position and the study level according to the completed credit hours for a study program of less than or equal to 150 credit hours:

Study Level	Student Level	Percentage of the earned Credit hours
0	Freshman	From 0% to 25%
1	Sophomore	More than 25% to 50%
2	Junior	More than 50% to 75%
3	Senior	More than 75% to 100%

The following table indicates the student position and the study level according to the completed credit hours for a study program of greater than 150 credit hours:

Study Level	Student Level	Percentage of the earned Credit hours
0	Freshman	From 0% to 20%
1	Sophomore	More than 20% to 40%
2	Junior	More than 40% to 60%
3	Senior-1	More than 60% to 80%
4	Senior-2	More than 80% to 100%

Chapter 5

Examination Regulations

Article 34: The Course

The course is a subject of study (body of knowledge) given during one semester and ends with a final examination. Students registered in a course may be divided into one or more groups, where each group is assigned an instructor. The program coordinator assigns a coordinator for each course that has many groups. The *course coordinator* coordinates with the group instructors concerning the contents of the course, textbooks, examinations and grades.

The course instructor should inform students at the beginning of each semester of the course assessment and evaluation methodology, as well as the time of periodical examination.

Article 35: Semester Coursework

The work and activities of a student for a course are evaluated by two marks; *semester Coursework mark* and *Final Exam mark*. The semester coursework mark is the mark that represent the student effort during the semester and contains examinations marks applied, training projects, and different academic activities of the course. All assignments, reports and researches shall be returned to the student after correction completion and grades registration.

If a student absents him/herself from an examination that is scheduled before without a valid reason acceptable to the course instructor shall give a zero grade for this examination. This zero grade is included in the calculation of the semester coursework mark. The course instructor may consider a make-up examination for the absent student if his/her absence excuse is acceptable.

Article 36: Final Examination

The course final examination is a general examination in the course, and it is held at the end of each semester. The Final Examination can and may include theoretical, applicable, oral, and laboratory examinations according to the needs of the course. The final examination mark is the mark which the student gets at the end of the semester examination for each course.

Article 37: Final Course mark

The final course mark is the sum of the semester coursework mark and the final examination mark for each course is recommended to be according to the following percentages: 50% of the maximum course mark is dedicated for the semester work and 50% for the final examination, although this is not required for all courses and may be changed based on the recommendation of the course instructor, department or faculty under which the course is taught. The final course mark must be an integer number, no floating numbers are accepted.

Article 38: Course Maximum Mark

The maximum mark for each course is 100 marks. If marking is done to a different maximum, the final mark should be scaled to 100.

Article 39: Evaluations and Grades

The following table indicates how to convert a percentage into a 4.0 Grade Point Average (GPA).

Course Grade (%)	Symbol	Points
[93, 100]	A	4.0
[90, 93[	A-	3.7
[87, 90[	B+	3.3
[83, 87[	B	3.0
[80, 83[	B-	2.7
[77, 80[	C+	2.3
[73, 76[	C	2.0
[70, 72[	C-	1.7
[67, 70[	D+	1.3
[63, 67[	D	1.0
[60, 63[	D-	0.7
[0, 60[	F	0.0

The symbols that are not calculated in the GPA are as follows:

Symbol	Evaluation	Explanation
I	Incomplete	Must be removed by the end of eighth week of the next term.
W	Withdrawal	Changed to "F" if the withdrawal is done after the specified deadline.
AU	Audit	No credit is awarded, and no examinations are required.
S	Satisfactory	Pass course without grade
CO	Continued	Continued course for more than one semester.

Article 40: Course Grade Points

The Course Grade Points are calculated by the number of credit hours required for the course multiplied by the points corresponding to the final mark of the relevant course.

Article 41: Results

The course instructor is responsible for the correction of the examination papers of his/her course, for the revision of the grades, and their registration in their respective course transcripts and for handing them over to their respective faculty within a maximum period of 72 hours after the final date of examinations mentioned in the academic calendar.

Article 42: Semester Grade Point Average

The semester Grade Point Average (GPA) is a numerical academic evaluation method of the student's work during a semester. It is calculated by dividing the grade point total by the total number of credit hours earned for all courses taken within one semester and rounded up to the nearest two digits.

Article 43: Grade Point Average

The Grade Point Average (GPA) is a numerical academic evaluation method of the student's work during a semester. Generally, the GPA is calculated by dividing the grade point total by the total number of credit hours earned for all courses taken within one semester and rounded up to the nearest two digits.

When a student completes all the study program requirements, the Cumulative Grade Point Average (cGPA) indicates the assessment of all courses taken throughout the entire study period.

The cumulative GPA is calculated by dividing the Grade Point total by the total number of credit hours earned for all courses of the academic program. In the case that a student has failed a course, or has repeated a course to improve their grade, the only the highest grade the student has received in that course will be calculated in the cGPA. Decimals in the GPA & cGPA beyond 2 places are truncated, and afterwards rounded up to one decimal place**.** The GPA may range from 0.0 to 4.0.

Article 44: Assessment Method

The recommended distribution of the grades for both practical and theoretical courses are as follows:

	Practical Courses	Theoretical Courses
Midterm Exam.	10 %	20 %
Quizzes	10 %	20 %
Punctuality and Participation	10 %	10 %
Practical (Lab, workshop, etc.)	20 %	-
Final Assessment	50 %	50 %
Sum	100 %	100 %

If a course instructor requires a different grade distribution for their course, the instructor may do so provided it is done within the university accepted practices and clearly communicated to the students in a transparent manner.

This grade distribution is also subject to approval or rejection by the department or faculty.

Article 45: Academic Honor

Students with a cumulative GPA of 3.5 and above are included in the honor list, if the student has not failed in any course during his/her study in the university and finished not less than 70% of the program requirements in the University.

Article 46: Incomplete Grade

An Incomplete Grade is a temporary grade of "*I*" that is given for incomplete course work due to justified circumstances. The course instructor may accept the student's request if the student submits his/her request for an Incomplete Grade before the final exam. It is the student's responsibility to contact the instructor regarding work to be completed for the removal of the "*I*" grade. The student must complete the required course work before the end of the following semester, or else the "*I*" shall be changed to grade "*F*".

Article 47: Absence from Final Examination

Student who does not attend the final examination will have a mark of zero. Upon urgent necessity, the student might be given a make-up examination before the end of the following semester at most. The student's mark is then adjusted according to his/her result in this make-up examination. The decision to administer a make-up examination is taken by the faculty council according to the program coordinator advice.

Article 48: Academic Warning (Probation)

At the end of any academic semester, students obtaining a GPA of less than 2.00 are issued an academic warning put on Probation. Students on probation and are only permitted to register for a maximum of 10 Credit Hours in the following semester. If academic warnings are issued in three semesters and/or for two consecutive semesters for a student, the university council may suspend this student.

Article 49: Course Repeat

If a student fails in any Mandatory course, he/she has to retake this course when it is available and sit for a re-examination, but the Elective courses can be retaken and/or changed. The student must pay the regular course repeat tuition fees. The grades of failed courses are not calculated in the GPA, however they do appear on the student's academic transcript. It is possible for a student to repeat a course in which he/she has passed before with lower grade to improve his/her GPA. In this case, and after paying the regular course repeat tuition fees, the course credit hours are calculated once and the new

grade will be recorded on the student's transcript. Students are not allowed to repeat a course that he/she has passed before more than two times. Exceptions may be granted based on the recommendations of the faculty council.

Article 50: Academic Integrity

Any form of plagiarism, cheating, falsification, impersonation, evidence of concealment or fabrication of results are not tolerated in Heliopolis University. The minimum penalty for such violations is failing the course in which this violation is committed. In certain conditions, the penalty may reach dismissal from the University, either for a specific number of semesters, or dismissed from the university entirely, based on the circumstances.

Article 51: Marks Sheet

For each group of students registered in a course there must be a Final Mark Sheet in which the student's final marks and grades are recorded. This sheet displays the student's name, academic scores in the registered courses, Final Examination attendance record, the semester coursework marks, Final Examination mark and grades, in addition to other academic remarks.

Article 52: Final Examinations Preparations

Without violating these regulations, the faculty council states the necessary preparations for the Final Examinations.

Article 53: Degree Plan Form

To be eligible for graduation, students must apply for a "*Degree Plan Form*" one semester before the graduation semester. This form maps out all completed courses as well as the remaining courses relevant to the study program. It insures that all the degree requirements have been completed. The form must be conducted under the supervision of the Academic Advisor and approved by the Program Coordinator. Copies of this form are supplied to the main Registration Office. This form must also include a student financial clearance statement.

Article 54: Degree Requirements

Students are awarded the Bachelor or Licentiate Degree after completing the following requirements:

1. The fulfillment of the minimum credit hour requirements in the program study plan as specified in the curriculum of the relevant faculty.
2. Achieving a final GPA grade of at least 2.0 in order to be awarded the relevant academic degree.
3. The completion of studies within the specified period applicable to the study program according to article (29).
4. Submitting a financial clearance statement.

Article 55: Explanation of these Articles

The university council has the right to explain the articles of these regulations.

Chapter 6

University Requirements (Core Program)

Heliopolis University Core Programs is an integrated learning experience that aims to develop students' capacity for innovation and social responsibility. Throughout the Core Programs courses, the University aims to create:

- ✓ *Interactive Learning*; where students are artists and thinkers investigating real community problems and cooperating to develop creative, applicable solutions.
- ✓ *Challenging Learning*; where students at all levels are motivated and supported to do more than they believe they can.
- ✓ *Communicative Learning*; through inspiring presentations, exhibitions and workshops, students and teachers build a clear vision of pathways to achievement.

Core Courses are designed to empower students to realize their capabilities and enhance skills critical to problem-solving, critical thinking, persistence toward excellence, as well as social responsibility. The Core Program study plan includes four course streams. This is indicated in the following table:

No.	Stream	Courses
1	Language, Communications and Enterprise	1 Academic English Writing 2 German Language 3 Communication skills 4 Creativity & Entrepreneurship 5 Arabic Literature
2	Arts, Culture, Development and Innovation	1 Perception Actuality 2 Diversity Integration 3 Communication Through Arts 4 Practicing Individual Presence 5 Multi-focus to Arts 6 Art Creative Processes 7 Consciousness Developments to Arts 8 Art Project 9 Culture and History 10 Egyptology
3	Social Science	1. Research Methodology 2. Philosophy 3. Human Rights and Politics 4. Sociology 5. Principals of Law 6. Psychology
4	Nature and Community	1 Sustainable Development 2 Deep Ecology 3 Biology 4 Evolution

University Requirements (Core Program) Study Plan

The core program study plan contains 12 mandatory credits and 6 elective credits. All University students must take the 12 mandatory credits. Each student can choose 6 elective credits from the available elective course list. The University council assigns a committee for each course to develop its specs, and to follow up its reports and files according to the university internal quality assurance system.

Course Code	Course Name	Pre. Code	Prerequisite Name	Lec.	Tut.	Lab.	WS	Sum	Cre. Hours
Mandatory Courses					**12**	**Credit Hours**			
0111	Academic English Writing 1			0	2	0	0	2	1
0411	Sustainable Development			1	0	0	0	1	1
0211	Perception Actuality			0	2	0	0	2	1
0113	German Language1			0	2	0	0	2	1
0122	Academic English Writing 2	111	Academic English Writing 1	0	2	0	0	2	1
0233	Communication Through Art			0	2	0	0	2	1
0156	Creativity and Entrepreneurship			0	2	0	0	2	1
0157	Arabic Literature			0	2	0	0	2	1
0266	Art Creative Processes			0	2	0	0	2	1
0269	Culture and History			1	0	0	0	1	1
0371	Philosophy			1	0	0	0	1	1
0382	Human Rights and Combating Corruption			1	0	0	0	1	1
			Partial Sum:	**4**	**16**	**0**	**0**	**20**	**12**
Elective Courses					**6**	**Credit Hours**			
0222	Diversity Interaction			0	2	0	0	2	1
0422	Deep Ecology	111	Academic English Writing 1	1	0	0	0	1	1
0124	German Language 2	113	German Language1	0	2	0	0	2	1
0331	Nutrition			1	0	0	0	1	1
0244	Practicing Individual Presence			0	2	0	0	2	1
0155	Communication Skills			0	2	0	0	2	1
0255	Multi-Focus to Art			0	2	0	0	2	1
0260	Egyptology			1	0	0	0	1	1
0363	Research Methodology			0	2	0	0	2	1
0364	Sociology			1	0	0	0	1	1
0277	Consciousness Development			0	2	0	0	2	1
0381	Principles of Law			2	0	0	0	2	2
0383	Psychology			1	0	0	0	1	1
0484	Biology			1	0	0	0	1	1
0485	Evolution			1	0	0	0	1	1
0288	Art-Project			0	2	0	0	2	1
			Partial Sum:	**9**	**16**	**0**	**0**	**25**	**17**

Summary of Course Contents For the University Requirements (Core Program)

0111 Academic English Writing 1 لغة انجليزية 1

This course prepares students for advanced English reading and writing skills. Students read a wide variety of academic texts of easy to medium reading difficulty. Students practice reading skills such as pre-reading/surveying texts, adjusting their speed and reading style to different skimming and scanning requirements. They practice a variety of vocabulary skills such as using roots and affixes to understand the meaning of a word, using context clues to understand the approximate meaning of the word, and knowing when it is or is not necessary to look up a new word in the dictionary. Students learn how to write simple, compound and complex sentences and incorporate them into short paragraphs to form short essays.

0113 German Language1 لغة ألمانية 1

This course focuses on basic linguistic and communicative structures of the German language. Students will be introduced to various aspects of German culture and learn to communicate in simple everyday situations and personal interaction. The module will adopt an integrated approach to language learning and will emphasize equally all four skills of reading, writing, listening and speaking as well as the acquisition of grammar structures and vocabulary. Audio and video materials will also be used to supplement the textbook and to provide students with a better insight into Germany, her culture and the life of her people. The module will also attempt to help students optimize their learning by teaching them vital strategies for language learning and language use. This should, in turn, allow students to develop greater learner autonomy.

0122 Academic English Writing 2 لغة إنجليزية 2

This course prepares students for college level reading and writing. Students practice reading more quickly with greater comprehension. Vocabulary work focuses on words in context. Students increase their critical reading skills, using various texts, fiction, magazines, poems, newspapers, and student writings and discuss and evaluate those materials. Students develop various academic skills such as writing summaries, paraphrases &reviews, taking essay exams and citing outside sources in writing.

0124 German Language 2 لغة ألمانية 2

This course allows students to manage their day-life in countries and regions where German is the first language, to get to know the country and people and to broaden their knowledge and skills in the German language. The main aim is speaking and practices of listening that lead to better understanding of the German language. In addition there will be a lot of information about culture and people. The course cove knowledge of modern German imparted through regular speaking exercises, talks and seminars. The main emphasis will be on communicative skills (speaking, writing, listening and reading). The course will also include theatre and regional knowledge projects and phonetic exercises. There will be daily practice in spoken German with added phonetics exercises; in addition, various projects will also be on offer.

0155 Communication Skills مهارات التواصل

This course is designed to help students identify ways to communicate effectively in the workplace environment. Students will be introduced to Technical Writing in contrast to Academic Writing. Students will be taught how to communicate in business using a number of channels such as memos, e-mails, letters, reports, Meeting Minutes, oral presentations, fliers, brochures, newsletters and manuals. They will be introduced to concepts such as ethnocentrism, multiculturalism, etc. The course is designed to help students develop practical skills to communicate more effectively with emphasis on the importance of document design and graphics. Students will be instructed in the use of various techniques to write reader-friendly and visually appealing documents.
This course is designed to help students identify ways to communicate effectively in the workplace environment. Students will be introduced to Technical Writing in contrast to Academic Writing. Students will be taught how to communicate in business using a number of channels such as memos, e-mails, letters, reports, Meeting Minutes, oral presentations, fliers, brochures, newsletters and manuals. They will be introduced to concepts such as ethnocentrism, multiculturalism, etc. The course is designed to help students develop practical skills to communicate more effectively with emphasis on the importance of document design and graphics. Students will be instructed in the use of various techniques to write reader-friendly and visually appealing documents.

0156 Creativity and Entrepreneurship الإبداع والمبادرة

This course inspires entrepreneurial innovation and creativity through interactive lectures, workshops, and case studies in contemporary issues to include energy, life sciences, healthcare, and technology. Students will gain awareness of entrepreneurial innovation sources, structures and dynamics. Students will develop individual and group skills for generating innovative ideas and find ways to apply these ideas to address current issues and problems in different industries and settings. Course topics include the history of entrepreneurship, the role of entrepreneurs and entrepreneurs in the 21st century global economy, and the identification of entrepreneurial opportunities. The elements of creative problem-solving, the development of a business concept/model, the examination of feasibility studies, and the social/moral/ethical implications of entrepreneurship will be incorporated.

0157 Arabic Literature آداب اللغة العربية

This course is a survey of Arabic literature history with a focus on continuity and change, influence, and major trends, themes, and genres. It provides students with a foundational knowledge of literature in the Arabic language. Students will be introduced to short stories, novels, essays, poetry, and plays. The focus will be on literature that is classical and modern, urban and rural, as well as religious and secular. This course explores social, religious, and historical aspects of modern Arab culture through an exciting collection of videos, lectures, reading and discussion. Contact between the Arab world and the west in the modern era will be seen in relation to changes in Arabic culture. Particular attention will be given to the works of Naguib Mahfouz, the Egyptian Winner of the Nobel Prize for Literature as well as to the works of Gibran Khalil Gibran, Lebanese-American philosophical essayist, novelist, mystical poet, and artist. The course will be taught in English in its entirety. No prerequisites.

0211 Perception Actuality أدراك الواقع الفني

This course provides an introduction to the different basic arts: movement, music, acting and fine arts. Students learn the basic principles in each art to be able to appreciate the value of arts for their own personal growth as well as their communities development through engagement in the process of artistic creation. Practicing perception with all senses will be essential in this course and explored as a basic tool to develop awareness and mindfulness. In this course students are able to raise their inner activity in order to act with empathy.

0222 Diversity Interaction التنوع التكاملي

This course will provide exercises to act and react with the uniqueness of polarities and investigate the interaction between different qualities. Students will explore the meaning of integration in an artistic way and get to know who to use diversity creatively and integrate it into their work. Students will engage in perceiving opposites and studying polarities to be inspired for finding the balance of tolerance, acceptance and practice their attitude of flexibility in changes.

0233 Communication Through Art التواصل الفني

Musical conversation, communicating through painting, body language, expressing own ideas with the whole personality through movement are all ways of enhancing non-verbal communication skills. In this course the student can learn that communication through art can be the languages of human expression for a global understanding. Student can explore that imagination can be expressed more comprehensive than through words.

0244 Practicing Individual Presence تجارب التواجد الفردي

Strengthening the individuals consciousness to respond and react according to a situation. Practicing time management and overview processes. Act with the right thing at the right moment. Be aware of the moment. Be aware of the consequences of your doing and develop social responsibility.

0255 Multi-Focus to Art المنظور المتعدد للفنون

Essential in this course is to widen the students perspectives on multi diversity in the arts. To get to know various stiles of the arts leads to express one selves and interact out of different points of view. This develops an attitude to balance unequal modalities and respecting diversity and activate to bridge differences. Self observation and evaluation will lead to find the own authenticity.

0260 Egyptology علم المصريات

The objective of this course is to help students acquire the necessary knowledge and understanding of ancient Egyptian culture/civilization in the ancient world. Topics in Egyptology shall introduce students to the following areas of study: History and archaeology of ancient Egypt, Middle Egyptian language and Hieroglyphic script, Egyptian art, Museum Studies, Egyptian epigraphy, Culture, Religion and beliefs, Egyptian foreign relations, Egyptian languages, Middle Kingdom literature, Ancient Languages, Egyptian art, Architecture, and Egyptian Town and Country

0266 Art Creative Processes العمليات الفنية الأبداعية

Learning to accept and express processes gives the ability to act successfully. How can one deal with processes. This will be a main issue in this course. Exercises will be provided to strengthen the inner independency and trust in one selves creativity. The course offers a journey to find the own inner artist.

0269 Culture and History الثقافة و التاريخ

This course covers definition; the differences between culture and civilization; culture and transfer of culture, types of culture, relativity of culture and importance of culture on the national and international levels. The course offers an overview on the national and international history with emphasis on the recent Egyptian history, role of ancient Egyptian civilization on the world civilization, the main characters of Christian era and the Islamic period, the role of Islamic institutions e.g. Azhar and Coptic Church on the national and international civilization, the stages of building democracy in Egypt, the role of Egyptian Leaders for dependence, new Egypt in science, technology, agriculture, education, industry, the role of youth in improving Egyptian education, industry, agriculture and culture.

0277 Consciousness Development تنمية الوعي الفني

Practicing clarity for conscious action, simultaneous observation of manifold actions, increasing concentration for an ongoing process, mastering in synchronizing processes are the great challenges for management and leadership skills. The different art forms will provide the opportunity to experience knowledge of human nature, self knowledge and understanding processes in nature as fundamental skills to achieve a wider consciousness.

0288 Art-Project مشروع فني

The student has the possibility to develop a project in one of the art forms with guided support of the artist. The student gets to know an artistic basis for abilities which are needed for a good and successful project management. Observing processes and evaluating them will be part of the learning process. The course should encourage the student to be aware for self reflection and self evaluation.

0331 Nutrition

This course focuses on teaching students about the basics of nutrition and healthy eating. Students are taught foundational concepts such as optimum caloric intake, core nutrients & vitamins needed for a healthy balanced lifestyle, etc. The course focuses on allowing students to understand how good nutrition can affect them and how to make good decisions for eating and living with a healthy lifestyle.

0363 Research Methodology طرق وتصميم البحوث

This course provides students with an understanding of the purpose of research, research design, and research methods. Research is the application of the scientific method to solving real world problems; research design is the plan for the application of accepted practices; and research methods provides models for the appropriate collection, organization, and analysis of unbiased data for decision making, replication, and to contribute to the knowledge base.

0364 Sociology علم الأجتماع

This course introduces students to basic concepts of sociology: groups, race and ethnicity, class, gender, nation, citizenship, status, role, society, human behavior patterns in groups, and social institutions. The approach is broadly comparative, historical, and global in orientation and focus, with an emphasis on the understanding of basic social processes such as socialization, social exchange, deviance and conformity, social change and basic social institutions such as the economy, the polity, the family, religion, education

0371 Philosophy الفلسفة

This course provides a critical introduction to the fundamental philosophical problems. It includes an examination of historical and contemporary thought through in-class presentation, readings, discussions, and student writings. In this course, students will gain an understanding of diverse and often competing perspectives on basic human problems. Students will examine diverse viewpoints that will allow them to understand a wide range of views and challenge them to defend their own positions. This course involves active use of writing, speaking, and group projects. It provides opportunities for gathering information, analyzing problems, and synthesizing diverse perspectives. Finally, the course allows students to link theory to their own lives and daily practice.

0381 Principles of Law مبادىء القانون

In this course, the Egyptian business law and codes are explained. Students are introduced to the concepts of laws that are on the books, norms, and certain illegal activities. The purpose of this course is for the students to achieve an understanding of their legal environment and be capable of working with the confines of the government's limits.

0382 Human Rights and Combating Corruption حقوق الإنسان و مكافحة الفساد

This course will be taught in line with the curricula set out and mandated by the Supreme Council of Universities. The course will focus on the principles of Human Rights in the Egyptian context and deal with some human rights problems and controversies such as economic and social rights, group rights, and cultural relativism. The course will also focus on corruption in different contexts as well as methods for fighting corruption on different levels.

0383 Psychology علم النفس

This course provides an overview of the field of psychology, including research, theory, and application. Specific topics include the biological bases of behavior, sensation and perception, learning, cognition, motivation and emotion, development, social cognition and social influence, personality and individual differences, and mental disorders and therapy. A major goal of the course is to show how questions within these areas are addressed through experiential research. The course introduces students to theories, research, and procedures used in psychological research and practice. It also promotes thinking about how students can apply this knowledge to enhance their lives.

0411 Sustainable Development مقدمة في التنمية المستدامة

The course is designed to raise the students awareness of the various socio-economic and technical issues involved in sustainable development, and to give a broad overview of the different areas of concern as expressed by practitioners. By the end of the course the students are expected to develop the specific capabilities to define the concept of sustainable development from a variety of perspectives to be able to explain how the idea of sustainability and development have changed through history and to apply sustainable development concepts to current environmental and development issues. The4 course further promotes an understanding of how individuals can influence sustainable development through the technical opportunities and challenges for change, and the mental approach needed. The course also explores the broad issues of sustainable development and the international agreements underpinning sustainable development and relates these to theories of globalization so as to awaken a broad knowledge of available technologies for moving to a sustainable future.

0422 Deep Ecology علم البيئة

This course will review major ecological concepts, identify the techniques used by ecologists, provide an overview of local and global environmental issues, and examine individual, group and governmental activities important for protecting natural ecosystems. The course highlights the contributions of important ecologists and the historical development of the discipline in order to explore contemporary ecological issues in a modern context. It investigates solutions to modern ecological problems by applying ecological theory.

0484 Biology علم الأحياء

This course introduces the students to the fundamental principles of biology, including cell structure, chemistry, and function; genetics; evolution; adaptation; and ecology. The course also highlights recent advances in the understanding of major principles in biology. In addition, the course offers a lab examination of the fundamental concepts in biology with emphasis on scientific inquiry through experimentation, dissection, and observation.

0485 Evolution علم النشوء و الأرتقاء

This course introduces the students to the basic evolutionary concepts such as natural selection, the genetics of the evolutionary process, the genetics of populations, the origin of life on earth, the mechanisms of speciation, the impact of geologic forces on evolution, and human evolution.

Total Number of Courses: 28

Appendixes

Appendix No. 1

The University Scientific Departments

The University contains a number of unrepeated scientific departments. Each department offers and supervises a number of courses which are related to the scientific specialization of the department. The following list gives the no. of courses supervised by each department. The detailed list of these courses is given in the appendices. The scientific supervision of these courses is the responsibility of the department, whether the course is a part of an academic program inside or outside the faculty.

Faculty code	Department Code	Department Name	No. of Courses
1		*Faculty of Engineering*	
	10	Basic Sciences	12
	11	Electromechanics Engineering	25
	12	Mechatronics Engineering	23
	13	Civil Engineering	30
	14	Architecture Engineering	37
		No. of Departments: **5**	No. of Courses: 127
2		*Faculty of Business and Economics*	
	21	Business Administration	56
	22	Economics	42
		No. of Departments: **2**	No. of Courses: 98
3		*Faculty of Pharmacy and Drug Technology*	
	31	Pharmaceutical Chemistry	10
	32	Pharmacognosy and Medicinal Plants	11
	33	Pharmaceutics and Pharmaceutical Technology	15
	34	Pharmacology and Toxicology	9
	35	Biochemistry and Biotechnology	9
	36	Microbiology and Public Health	4
	37	Pharmacy Practice	22
		No. of Departments: **7**	No. of Courses: 80
4		*Faculty of Physical Therapy*	
	41	Basic Science & Biomechanics	42
	42	Physical Therapy of Internal Medicine & Neurology	8
	43	Physical Therapy of Women's Health & Pediatrics	7
	44	Physical Therapy of Orthopedic & General Surgery	10
		No. of Departments: **4**	No. of Courses: 67

Faculty code	Department Code	Department Name	No. of Courses
5		*Faculty of Organic Agriculture*	
	51	Organic Crop Production	39
	52	Food Processing Technology	31
		No. of Departments: 2	No. of Courses: 70
		Total no. of Departments: 20	**Total no. of Courses:** 442

Appendix No. 2

The University Academic Programs

General Regulations — Heliopolis University

Fac. Code	Prog. Code	Academic Program Name	Man. Core Prog.	Elec. Core Prog.	Man. Faculty Req.	Elec. Faculty Req.	Man. Prog. Req.	Elec. Prog. Req.	Credit Hours
1		*Faculty of Engineering*							كلية الهندسة
	1001	Energy Engineering	12	6	55	0	85	12	170
	1002	Mechatronics Engineering	12	6	55	0	85	12	170
	1003	Water Engineering	12	6	55	0	85	12	170
	1004	Green Architecture Engineering	12	6	55	0	85	12	170
		Average:	12	6	55	0	85	12	170
		4 *Programs*							
2		*Faculty of Business and Economics*							كلية إدارة الأعمال والاقتصاد
	2001	Business Administration	12	6	58	0	42	21	139
	2002	Economics	12	6	58	0	42	21	139
		Average:	12	6	58	0	42	21	139
		2 *Programs*							
3		*Faculty of Pharmacy and Drug Technology*							كلية الصيدلة وتكنولوجيا الدواء
	3001	Pharmacy and Drug Technology	12	6	0	0	153	9	180
		Average:	12	6	0	0	153	9	180
		1 *Programs*							
4		*Faculty of Physical Therapy*							كلية العلاج الطبيعي
	4001	Physical Therapy	12	6	132	20	144	18	332
		Average:	12	6	132	20	144	18	332
		1 *Programs*							
5		*Faculty of Organic Agriculture*							كلية الزراعة الحيوية
	5001	Organic Crop Production	12	6	30	18	59	15	140
	5002	Food Processing Technology	12	6	30	18	59	15	140
		Average:	12	6	30	18	59	15	140
		2 *Programs*							

Fac. Code	Prog. Code	Academic Program Name	Man. Core Prog.	Elec. Core Prog.	Man. Faculty Req.	Elec. Faculty Req.	Man. Prog. Req.	Elec. Prog. Req.	Credit Hours
		General Average:	12	6	52.8	5.6	83.9	14.7	175

Statistics:

Total no. of academic programs in the University:	**10**
Average percentage of the University requirements to the total credits:	10.29%
Average percentage of the Faculty requirements to the total credits:	33.37%
Average percentage of the Program requirements to the total credits:	56.34%
Average percentage of the Mandatory credits to the total credits:	84.97%
Average percentage of the Elective credits to the total credits:	15.03%

Faculty of Physical Therapy Curriculum

1st Faculty strategy
2nd Graduate occupational profile
3rd National Academic Reference Standards (NARS)
4th Study plan general outline
5th Academic programs
6th Scientific departments
7th Faculty requirements
8th Curricula of the academic programs
9th Summary of course specs.

Introduction

The Faculty of Physical Therapy (FPT) of Heliopolis University for Sustainable Development (HUSD) was established to contribute to the Sustainable Development of the Egyptian Society. The Faculty was created with the launching of HUSD in 2009. The Faculty combines 1 program and a research unit.

1st Faculty Strategy

Vision

The Faculty of Physical Therapy strives to achieve a sustainable and holistic approach towards healing and physical therapy that encourages patients to take an active role in their own health management, long-term wellbeing, and overall disease prevention for a healthier Egyptian society.

Mission

The Faculty of Physical Therapy pioneers a state-of-the art approach towards teaching and researching the field physical therapy that heals and integrates the mind, body, and energy of the patients in a way that reflects their real needs and problems and solves them in a sustainable and continuous way.

Goals

The Faculty of Physical Therapy is concerned dedicated to achieving the following goals:

1. Becoming one of the top faculties of physical therapy in Egypt and achieving accreditation.
2. Establishing a teaching faculty of dedicated, qualified, and transformative educators who want to achieve a lasting change in the Egyptian society.
3. Establishing and cementing new methods of research that go beyond the normal research methods.
4. Establishing a strong connection with hospitals and medical centers across Egypt and the world to help bridge the gap between academia and practice.
5. Providing the absolute finest education for students possible and helping them to contribute to society.

Strategic Objectives

Over the next five years the Faculty of Physical Therapy aims to achieve the following:

1. Build up and develop a strong faculty team that understands the vision and mission and its practical implications.
2. Build up strong partnerships to private, public and civil stakeholders in order to engage in joint research-to-innovation projects.
3. Create a name of for the FPT that is known across Egypt for being an innovative faculty to offers one of the best degrees in Egypt.
4. Engage in a regular and open dialogue with the other faculty and core program members within Heliopolis University to create links between the different contents of courses and research projects.
5. Experiment with new forms of research and knowledge creation methodologies such as action research in general, appreciative and co-operative inquiry.
6. Building up the faculty departments in terms of knowledge base and increase the number of offered courses.
7. Continuously develop and improve curricula within the frame of bylaws accepted by the Egyptian Ministry of Higher Education.
8. Achieve program Accreditation.
9. Develop a competitive and unique post-graduate program for both professional and academic
10. Increase the publication rate of the faculty to increase international recognition and help in the accreditation process.

2nd Graduate Occupational Profile

When a student graduates, this student should be able to:

1. Act as a member of health care team in restoring, maintaining and improving functions of different body systems.
2. Provide comprehensive practice management and maintain patient's record in complete and accurate forms.
3. Understand the legal responsibilities and ethical considerations of professional practice.
4. Communicate effectively, accurately, clearly, confidently in written and oral in both English and Arabic languages.
5. Be committed to continuing professional development (life-long learning).
6. Recognize the importance of conducting research studies on evidence-based practice.
7. Acquire basic administration and teaching skills for patient and care given.

3rd National Academic Reference Standards (NARS)

1. Knowledge and Understanding

Graduates of the Faculty of Physical Therapy must have gained an understanding of the following definitions and concepts:

1.1. Human anatomy and physiology (emphasizing the dynamic relationships of human structure and function)

1.2. Human growth and development across life span.

1.3. Basic principles and theories from physics, biomechanics, electrophysiology and applied exercise sciences that can be utilized in physical therapy.

1.4. Principles of movement and function analysis based on anatomical, physiological and mechanical understanding considerations.

1.5. The effects of pharmacological intervention and its impact on physical therapy procedures.

1.6. Clinical sequel of pathology and their relationship to physical

1.7. Principles of physical therapy assessment and treatment (tools & techniques).

1.8. Medical and surgical interventions for different body systems and tissues as it related to physical therapy field.

1.9. Psychological and social factors that influence an individual in health and illness and their impact on physical therapy practice.

1.10. Different theories of motor learning and motor control.

1.11. Principles of research and evidence based physical therapy practice.

1.12. The legal responsibilities and ethical considerations of professional practice.

2. Practical and Professional Skills

Graduates of the Faculty of Physical Therapy must have gained the following practical and professional skills:

2.1. Performance of definitive physical therapy examinations.

2.2. Construct the problem list, strengths, abilities and buffers.

2.3. Formulation of physical therapy diagnosis.

2.4. Design and manage a specific physical therapy Plan of care.

2.5. Implement in a safe and effective manner a specific physical therapy plan of care.

2.6. Conduction initial and periodical patient's evaluation.

2.7. Modify physical therapy program, terminate intervention and induce discharge plan as related to changes in physical status.

2.8. Acknowledge cross-professional boundaries and limitations.

2.9. Employ appropriate referral procedures.

2.10. Cope with his/her own emotional reactions in different situation.

3. Intellectual Skills

Graduates of the Faculty of Physical Therapy must have gained the following intellectual skills:

3.1. Integrate basic anatomical, physiological and biomechanical knowledge with clinical data.

3.2. Conduct a comprehensive examination and evaluation to reach a physical therapy diagnosis. Synthesize relevant obtained data to predict prognosis.

3.3. Formulate plan of care to achieve realistic goals.

3.4. Write concise, accurate and understandable patient's problems.

3.5. Justify indications for, and proper use of orthotics and prosthetic devices.

3.6. Extract data from literature, using information technology and library resources to solve patients problems.

3.7. Utilize scientific thinking in solving problems related to patients, work management, and among rehabilitation team.

3.8. Value the framework of quality assurance mechanisms within physical therapy practice.

4. General & Transferable Skills

Graduates of the Faculty of Physical Therapy must have gained the following general & transferable skills:

4.1. Demonstrate competence in the use of computer based information.

4.2. Manage time, personal emotion stress, and prioritize work loads.

4.3. Display the potential for leadership and team skills.

4.4. Comply with infection control principles and sterile procedures.

4.5. Enhance personal and rapport with patients and family members.

4.6. Teach patients, families and significant others to perform or assist with selected physical therapy procedures.

4.7. Respond appropriately to individual and cultural differences in all aspects of physical therapy services.

4.8. Communicate verbally and non-verbally with patient health care delivery personnel and others in an effective, appropriate and capable manner.

4th Study Plan General Outline

The total credit hours required for graduation is 180. These 180 Credit Hours include 18 credit hours of University Requirements and 162 credit hours of mandatory and elective courses of the faculty and academic program. The requirements of both the faculty and academic program includes field training in community physical therapy and in hospitals.

The general study plan & outline of the distribution of the courses for the Physical Therapy Program in-line with the distribution required by the NARS are as follows:

Subjects	Percentage
Biological & Physical Sciences	32%
Core Professional Sciences	53%
Humanities & Behavioral Sciences	11%
Information Technology	3%

5th Academic Programs and Scientific Departments

The Faculty of Physical Therapy offers 1 academic program: Physical Therapy. The academic program. The program contains 180 credit hours. Through the academic advising process, students learn to take responsibility for selecting their courses, setting their schedule, and choosing a minor, registering in courses, and setting goals as well as planning the steps to implement them.

1. Study Plan

The following table indicates the distribution of the credit hours for the academic program. The Physical Therapy program is split into program Requirements and Program Electives. In order for a student to graduate with a degree in Physical Therapy, they must complete all 162 CrHrs of Program Requirements and all 18 CrHrs of University Requirements & Electives. This is indicated in the following table:

Requirements	Maj/Min	Man/Elec.	Type	Credits
University Requirements (18 credit hours)		Mandatory	Courses	12
		Elective	Courses	6
Academic Program Requirements (162 credit hours)	Major	Mandatory	Courses	144
		Elective	Courses	18
Total credit hours for each academic program:				180

2. 1-Year Internship

After Students complete their 180 Credit hour program, students will be required to complete a 1-year internship program at an approved hospital in order to complete their degree. The internship should last a minimum of 10-months along with an extra 2-months for completing a graduation project or comprehensive reflection report on the internship. After completion, A comprehensive report will be provided by the hospital and will be given to a committee for 3 faculty members to approve the internship and the project/report or not. If the internship is not accepted, the committee must determine the missing criteria and timeline for fulfilling the internship which the student must follow to fulfill their graduation requirements.

All decisions by the committee may be reviewed and/or overturned by a decision by the Faculty Council.

3. Degrees Awarded

The Faculty offers a *Bachelor of Science (B.Sc.)* in the following specialization:

1. Physical Therapy

New academic programs may be established based on the recommendations of the Faculty council and the approval of Heliopolis University council and the board of trustees.

4. Departments in the Faculty of Physical Therapy

The Faculty of Physical Therapy has 4 Departments

1 The Department of Basic Science & Biomechanics

The Department of Basic Sciences & Biomechanics is focused primarily on the different fields of science as well as biomechanics directly related to Physical Therapy. The department is focused on using and teaching the established methods as well as new and emerging methods of these fields that help in blending traditional knowledge and skills of basic science with the emerging fields Physical therapy and of sustainable development. The department is responsible for choosing the most appropriate courses, setting the study plan, creating course descriptions, making adjustments, and sending recommendations to the Dean of the Faculty for enhancing the academic program and making amendments to the bylaws related to this program upon necessity.

2 The Department of Physical Therapy of Internal Medicine & Neurology

The Department of Physical Therapy of Internal Medicine & Neurology focuses on researching and teaching the fundamentals of Physical therapy in the fields of internal medicine and neurology. The members of the department are responsible for researching concepts related to the physical therapy of internal medicine and neurology. The department is responsible for choosing the most appropriate courses, setting the study plan, creating course descriptions, making adjustments, and sending recommendations to the Dean of the Faculty for enhancing the academic program and making amendments to the bylaws related to this program upon necessity.

3 The Department of Physical Therapy of Women's Health & Pediatrics

The Department of Physical Therapy of Women’s Health & Pediatrics focuses on researching and teaching the fundamentals of Physical therapy in the field of Physical Therapy of Women's Health & Pediatrics. The members of the department are responsible for researching concepts related to the therapy of Women's Health & Pediatrics. The department is responsible for choosing the most appropriate courses, setting the study plan, creating course descriptions, making adjustments, and sending recommendations to the Dean of the Faculty for enhancing the academic program and making amendments to the bylaws related to this program upon necessity.

4 Physical Therapy of Orthopedic & General Surgery

The Department of Physical Therapy of Orthopedic & General Surgery focuses on researching and teaching the fundamentals of Physical therapy in the fields of Orthopedic & General Surgery The members of the department are

responsible for researching concepts related to the physical therapy of Orthopedic & General Surgery. The department is responsible for choosing the most appropriate courses, setting the study plan, creating course descriptions, making adjustments, and sending recommendations to the Dean of the Faculty for enhancing the academic program and making amendments to the bylaws related to this program upon necessity.

6.
Scientific Departments Courses in the Faculty of Physical Therapy

Each department in the faculty scientifically supervises a group of courses that belong to its field of specialization. The department is responsible to develop the course specs and follow up the reports and files of these courses.

41 Department of Basic Science & Biomechanics

This department scientifically supervises the following group of courses:

Course Code	Course Name	Lec.	Lab.	Clinc	Sum	Credit Hours
4101	*Human Histology*	1	2	0	3	2
4102	*Biophysics*	1	2	0	3	2
4104	*Human Anatomy 1*	2	2	0	4	3
4111	*Human Anatomy 2*	2	2	0	4	3
4113	*Community Health*	1	0	0	1	1
4114	*Psychology of the Handicapped*	2	0	0	2	2
4115	*Kinesiology*	2	0	0	2	2
4116	*Ethics & Laws of PT*	2	0	0	2	2
4121	*Human Physiology 2*	2	2	0	4	3
4122	*Infection Control*	2	0	0	2	2
4123	*Tests & Measurements 1*	1	2	0	3	2
4126	*Biomechanics*	2	2	0	4	3
4127	*Therapeutic Exercises 1*	1	2	0	3	2
4132	*Tests & Measurements 2*	1	2	0	3	2
4133	*Electrotherapy 1*	1	2	0	3	2
4134	*Manual Therapy 1*	1	2	0	3	2
4135	*Occupational Therapy*	1	2	0	3	2
4136	*Therapeutic Exercises 2*	1	2	0	3	2
4137	*Hydrotherapy*	1	2	0	3	2
4142	*Human Pathology*	2	0	0	2	2
4144	*Principles of Rehabilitation*	2	0	0	2	2
4145	*Heat Therapy*	1	2	0	3	2
4146	*Manual Therapy 2*	1	2	0	3	2
4152	*Exercise Physiology*	2	0	0	2	2
4153	*Evidence Based Practice in PT*	2	0	0	2	2
4161	*Clinical Decision Making*	1	0	0	1	1
4163	*Medical Laboratory Analysis*	1	2	0	3	2
4164	*Occupational Skills for PT*	2	0	0	2	2
4165	*Communication Therapy*	2	0	0	2	2
4167	*Electrotherapy 2*	1	2	0	3	2
4171	*Ergonomics*	2	0	0	2	2

4172	*Movement Therapy 1*	1	4	0	5	3
4173	*Fundamentals of Pilates*	1	2	0	3	2
4176	*Introduction to Biostatistics*	1	2	0	3	2
4181	*Methods of Teaching & Instructing Patients*	1	0	0	1	1
4182	*Movement Therapy 2*	1	2	0	3	2
4183	*Differential Diagnosis in PT*	1	0	0	1	1
4184	*Electrodiagnosis*	2	0	0	2	2
4191	*Research Methodology*	2	0	0	2	2
4192	*Speech Therapy*	2	0	0	2	2
4193	*Psychiatry*	2	0	0	2	2
No. of Courses in the Department: 41	***Partial Sum:***	**60**	**46**	**0**	**106**	**83**

42 Department of Physical Therapy of Internal Medicine & Neurology

This department scientifically supervises the following group of courses:

Course Code	Course Name	Lec.	Lab.	Clinc	Sum	Credit Hours
4241	*Cardiovascular Pulmonary Diseases & Surgery*	2	0	0	2	2
4242	*PT of Cardiovascular Pulmonary Diseases & Surgery*	1	2	3	6	3
4251	*Internal Medicine & Gertiatrics*	2	0	0	2	2
4252	*PT for Internal Medicine & Gertiatrics*	1	2	3	6	3
4271	*Neuroanatomy*	1	2	0	3	2
4272	*Neurophysiology*	2	0	0	2	2
4281	*Neurology & Neurosurgery*	2	0	0	2	2
4282	*PT of Neurosurgery*	1	2	3	6	3
4283	*PT of Neurology*	1	2	3	6	3
4284	*Geriatric Rehabilitation*	2	2	0	4	3
No. of Courses in the Department: 10	***Partial Sum:***	**15**	**12**	**12**	**39**	**25**

43 Department of Physical Therapy of Women's Health & Pediatrics

This department scientifically supervises the following group of courses:

Course Code	Course Name	Lec.	Lab.	Clinc	Sum	Credit Hours
4372	*Women's Health*	2	0	0	2	2
4373	*PT for Women's Health*	1	4	3	8	4
4381	*Motor Development 1*	1	0	0	1	1
4391	*Pediatrics & Pediatric Surgery*	2	0	0	2	2
4392	*PT of Pediatrics & Pediatric Surgery*	2	4	3	9	5
4394	*Neonatal Care*	2	0	0	2	2
4395	*Motor Development 2*	1	0	0	1	1
No. of Courses in the Department: 7	***Partial Sum:***	**11**	**8**	**6**	**25**	**17**

44 Department of Physical Therapy of Orthopedic & General Surgery

This department scientifically supervises the following group of courses:

Course Code	Course Name	Lec.	Lab.	Clinc	Sum	Credit Hours
4441	*Radiology 1*	1	2	0	3	2
4451	*Dermatology*	1	0	0	1	1
4452	*Burns & General Surgery*	2	0	0	2	2
4453	*PT of Burns & General Surgery*	2	2	3	7	4
4461	*Orthopedics & Orthopedic Surgery*	2	0	0	2	2
4462	*PT of Orthopedics & Orthopedic Surgery*	2	2	3	7	4
4463	*PT of Trauma & Sports Injuries*	1	2	0	3	2
4464	*Orthotics & Prosthesis*	2	0	0	2	2
4465	*Radiology 2*	1	2	0	3	2
4491	*PT of Dermatological Diseases*	1	2	0	3	2
No. of Courses in the Department: 10	***Partial Sum:***	**15**	**12**	**6**	**33**	**23**
No. of Courses in the Faculty: 68	***Total:***	**101**	**78**	**24**	**203**	**148**

7.
Study Plan for the Academic Programs
Physical Therapy Program Requirements

The Faculty of Physical Therapy offers one academic program. The program contains mandatory and elective courses. This is in addition of the core program study plan. In the following, there is a list of the mandatory and elective courses represent the program requirements.

Course Code	Course Name	Co/Pre	Co/Prerequisite	Lec	Lab	Clinc	Sum	Credit Hrs
Mandatory Courses								**144 Credit Hours**
3200	Botany & Pharmacognosy			2	2	0	4	3
4101	Human Histology			1	2	0	3	2
3101	Organic Chemistry 1			3	2	0	5	4
3401	Medical Terminology			2	0	0	2	2
4102	Biophysics			1	2	0	3	2
4104	Human Anatomy 1			2	2	0	4	3
4111	Human Anatomy 2	4104	Human Anatomy 1	2	2	0	4	3
3412	Human Physiology	3400	Human Anatomy and Histology	2	0	0	2	2
4113	Community Health			1	0	0	1	1
2114	Computer Skills			0	0	0	2	1
4114	Psychology of the Handicapped			2	0	0	2	2
4115	Kinesiology			2	0	0	2	2
4116	Ethics & Laws of PT			2	0	0	2	2
3620	Microbiology and Immunology	3401	Medical Terminology	3	2	0	5	4
5221	Human Nutrition			2	0	0	2	2
4121	Human Physiology 2	3412	Human Physiology	2	2	0	4	3
4123	Tests & Measurements 1	4111	Human Anatomy 2	1	2	0	3	2
4126	Biomechanics	4115	Kinesiology	2	2	0	4	3

Course Code	Course Name	Co/Pre	Co/Prerequisite	Lec	Lab	Clinc	Sum	Credit Hrs
4127	Therapeutic Exercises 1	4123	Tests & Measurements 1	1	2	0	3	2
3531	Biochemistry 1	3101	Organic Chemistry 1	2	2	0	4	3
4132	Tests & Measurements 2	4123	Tests & Measurements 1	1	2	0	3	2
4133	Electrotherapy 1	4102	Biophysics	1	2	0	3	2
4134	Manual Therapy 1	4104	Human Anatomy 1	1	2	0	3	2
4136	Therapeutic Exercises 2	4127	Therapeutic Exercises 1	1	2	0	3	2
4137	Hydrotherapy	4133	Electrotherapy 1	1	2	0	3	2
4441	Radiology 1	4111	Human Anatomy 2	1	2	0	3	2
3541	Biochemistry 2	3531	Biochemistry 1	2	2	0	4	3
4241	Cardiovascular Pulmonary Diseases & Surgery	4121	Human Physiology 2	2	0	0	2	2
4242	PT of Cardiovascular Pulmonary Diseases & Surgery	4241	Cardiovascular Pulmonary Diseases &	1	2	3	6	3
4142	Human Pathology	3620	Microbiology and Immunology	2	0	0	2	2
3443	Pharmacology 1	3531	Biochemistry 1	2	2	0	4	3
4251	Internal Medicine & Gertiatrics	4142	Human Pathology	2	0	0	2	2
4451	Dermatology	4142	Human Pathology	1	0	0	1	1
4152	Exercise Physiology	4127	Therapeutic Exercises 1	2	0	0	2	2
4252	PT for Internal Medicine & Gertiatrics	4251	Internal Medicine & Gertiatrics	1	2	3	6	3
4452	Burns & General Surgery	4451	Dermatology	2	0	0	2	2
4453	PT of Burns & General Surgery	4452	Burns & General Surgery	2	2	3	7	4
4461	Orthopedics & Orthopedic Surgery	4142	Human Pathology	2	0	0	2	2
4161	Clinical Decision Making			1	0	0	1	1
4462	PT of Orthopedics & Orthopedic Surgery	4461	Orthopedics & Orthopedic Surgery	2	2	3	7	4
4463	PT of Trauma & Sports Injuries	4461	Orthopedics & Orthopedic Surgery	1	2	0	3	2
4464	Orthotics & Prosthesis	4461	Orthopedics & Orthopedic Surgery	2	0	0	2	2
4465	Radiology 2	4441	Radiology 1	1	2	0	3	2

Course Code	Course Name	Co/Pre	Co/Prerequisite	Lec	Lab	Clinc	Sum	Credit Hrs
4167	Electrotherapy 2	4133	Electrotherapy 1	1	2	0	3	2
2170	Principles of Healthcare Management	4161	Clinical Decision Making	1	0	0	1	1
4271	Neuroanatomy	4111	Human Anatomy 2	1	2	0	3	2
4171	Ergonomics	4126	Biomechanics	2	0	0	2	2
4272	Neurophysiology	4271	Neuroanatomy	2	0	0	2	2
4372	Women's Health	4142	Human Pathology	2	0	0	2	2
4373	PT for Women's Health	4372	Women's Health	1	4	3	8	4
4176	Introduction to Biostatistics			1	2	0	3	2
4281	Neurology & Neurosurgery	4272	Neurophysiology	2	0	0	2	2
4181	Methods of Teaching & Instructing Patients			1	0	0	1	1
4381	Motor Development 1	4126	Biomechanics	1	0	0	1	1
4282	PT of Neurosurgery	4281	Neurology & Neurosurgery	1	2	3	6	3
4283	PT of Neurology	4281	Neurology & Neurosurgery	1	2	3	6	3
4183	Differential Diagnosis in PT			1	0	0	1	1
4184	Electrodiagnosis			2	0	0	2	2
4391	Pediatrics & Pediatric Surgery	4461	Orthopedics & Orthopedic Surgery	2	0	0	2	2
4191	Research Methodology			2	0	0	2	2
4392	PT of Pediatrics & Pediatric Surgery	4391	Pediatrics & Pediatric Surgery	2	4	3	9	5
4192	Speech Therapy	4114	Psychology of the Handicapped	2	0	0	2	2
3494	First Aid	3401	Medical Terminology	1	2	0	3	2
4395	Motor Development 2	4381	Motor Development 1	1	0	0	1	1
			Subtotal:	99	72	24	197	144

Elective Courses

18 Credit Hours

3211	Pharmacognosy 1	3200	Botany & Pharmacognosy	2	2	0	4	3
2213	Mathematics 1			2	0	0	4	3

Course Code	Course Name	Co/Pre	Co/Prerequisite	Lec	Lab	Clinc	Sum	Credit Hrs
3221	Pharmacognosy 2	3211	Pharmacognosy 1	2	2	0	4	3
4122	Infection Control	4142	Human Pathology	2	0	0	2	2
2224	Statistics 1	2213	Mathematics 1	2	0	0	4	3
2234	Statistics 2	2224	Statistics 1	2	0	0	4	3
4135	Occupational Therapy			1	2	0	3	2
4144	Principles of Rehabilitation	4126	Biomechanics	2	0	0	2	2
4145	Heat Therapy	4134	Manual Therapy 1	1	2	0	3	2
4146	Manual Therapy 2	4134	Manual Therapy 1	1	2	0	3	2
4153	Evidence Based Practice in PT			2	0	0	2	2
3253	Quality Control of Herbal Drugs	3132	Instrumental Analysis	2	2	0	4	3
4163	Medical Laboratory Analysis			1	2	0	3	2
4164	Occupational Skills for PT	4116	Ethics & Laws of PT	2	0	0	2	2
4165	Communication Therapy			2	0	0	2	2
4172	Movement Therapy 1	4136	Therapeutic Exercises 2	1	4	0	5	3
4173	Fundamentals of Pilates	4136	Therapeutic Exercises 2	1	2	0	3	2
3276	Plant Biotechnology	3221	Pharmacognosy 2	2	2	0	4	3
4182	Movement Therapy 2	4172	Movement Therapy 1	1	2	0	3	2
4284	Geriatric Rehabilitation	4144	Principles of Rehabilitation	2	2	0	4	3
3285	Drug Design of Natural Products	3253	Quality Control of Herbal Drugs	1	0	0	1	1
3286	Complementary and Alternative Medicine	3200	Botany & Pharmacognosy	2	2	0	4	3
4491	PT of Dermatological Diseases	4451	Dermatology	1	2	0	3	2
4193	Psychiatry			2	0	0	2	2
4394	Neonatal Care	4391	Pediatrics & Pediatric Surgery	2	0	0	2	2
3296	Production of Medicinal Plants	3221	Pharmacognosy 2	2	2	0	4	3
			Subtotal:	**43**	**32**	**0**	**81**	**62**

Course Code	Course Name	Co/Pre	Co/Prerequisite	Lec	Lab	Clinc	Sum	Credit Hrs
Statistics:			**Total:**		**142**	**104**	**278**	**206**

The percentage of the lecture hours to the total contact hours:	**51.1%**
The percentage of the laboratory hours to the total contact hours:	**37.4%**
The percentage of the Clinical hours to the total contact hours:	**8.6%**

ثامناً ملخص توصيف المقررات

8. Summary of Course Contents
Faculty of Business and Economics

2114	**Computer Skills**	**المهارات الأساسية لاستخدام الحاسب الآلي**

Thic course prepares students to: Understand all the basic concepts of Information Technology and its related terminologies, have advanced skills developed for the use of Office productivity packages, have the ability to fully utilize Internet an E-mail service, have the knowledge of E-learning and distance education systems and how they work and their benefits. Field of Specialization: N/a

2170	**Principles of Healthcare Management**	**مبادئ إدارة الرعاية الصحية**

The course focuses on the on the management and administration of health care delivery. Students will learn the basics on the administrative knowledge required that is applied in clinics and in hospitals. Students will understand the management responsibilities as well as the different structures that they may meet in their professional lives.

2213	**Mathematics 1**	**رياضيات 1**

This course is an introduction to business math. This courses teaches the subjects of Calculus and math related to business. Percentages, exponents, integration and so on are all taught in this subject. This course is to provide a foundation for students to understand the mathematical aspects of business going forward. Field of Specialization: N/a

2224	**Statistics 1**	**إحصاء 1**

This course focuses on preparing the students for business mathematical and statistical matters. It teaches the students about percentages, probabilities and begins to dive into statistical techniques. In the course students are exposed to different charts and graphs and understand the difference between quantitative and qualitative data. The students are to learn these concepts by using simple computer programs such as Excel or LibreOffice Calc. Field of Specialization: N/a

2234	**Statistics 2**	**احصاء 2**

This course revolves around the practical applications of inferential statistical techniques in business and the social sciences. Students are exposed to different statistical programs. Furthermore, students are introduced to inferential techniques such as the t-test, the linear regression model, the one-way and two-way ANOVA. Students must demonstrate an ability to define different datasets, choose the most proper method for analysis, perform the analysis and analyze it within a business context. Field of Specialization: N/a

3101 Organic Chemistry 1 **الكيمياء العضوية 1**

The course describes the fundamentals of organic chemistry of simple aliphatic and aromatic compounds including: structure and bonding, classification and nomenclature, synthesis and reactivity, reactions and properties, resonance and stability, mechanism of organic reactions and intermediates, acidity and basicity concepts for organic molecules, aromaticity and stability of aromatic compounds and finally, nomenclature and chemistry of simple polynuclear aromatic hydrocarbons. Students will also learn about carbon atom structure and polymers.

3200 Botany & Pharmacognosy **علم النبات والعقاقير**

The course gives a general introduction to Pharmacognosy (medicinal plant definition, classification, factors affecting cultivation, collection, drying, packing, storage and adulteration of medicinal plants and their secondary metabolites). The course covers the drugs derived the leaves as one of the plant organs: classification, morphology, histology, monographs, herbarium, powdered drug identification, adulteration, chemical tests, active constituents, uses, and pharmaceutical preparations of leaves e.g. senna, belladonna, datura, hyoscyamus, digitalis, ginco, tea, uva ursi, and henna.

3211 Pharmacognosy 1 **عقاقير 1**

The course gives a general introduction to Pharmacognosy (factors affecting cultivation, collection, drying, packing, storage and adulteration of medicinal plants and their secondary metabolites). The course covers the medicinal leaves, barks and woods their derived drugs: classification, morphology, histology, monographs, powdered drug identification, adulteration, chemical tests, active constituents, uses, and pharmaceutical preparations ofleaves e.g. senna, belladonna, digitalis, and henna; barks and woods e.g. cinchona, cinnamon, cassia, and pomegranate, quassia, guaiacum and yellow sandal.

3221 Pharmacognosy 2 **عقاقير 2**

The course covers the medicinal flowers, seeds, fruits, herbs, subterranean organs and their derived drugs: classification, morphology, histology, monographs, powdered drug identification, adulteration, chemical tests, active constituents, uses, and pharmaceutical preparations of flowers e.g. clove, pyrethrum, chamomile, and calendula; seeds e.g. cardamom, nigella, fenugreek, and psyllium; fruit e.g. anise, Ammivisnaga, capsicum, and cratagus; herbs e.g. mentha, thyme, lobelia, and ergot; subterranean organs e.g. squill, rhubarb, ginger and liquorice. As well as animal drugs and unorganized drugs.

3253 Quality Control of Herbal Drugs **مراقبة جودة الأدوية العشبية**

The course describes the applications of different techniques in herbal products and oil analysis, identification and quality control using ultra violet and visible spectroscopy, infrared spectroscopy, NMR spectroscopy, 2D NMR (COSY, NOESY and HMBC), mass spectroscopy, HPLC, HPTLC, GLC, chemometrics, metabolomics and combination of different techniques.

3276 Plant Biotechnology التكنولوجيا الحيوية النباتية

The course covers the advanced applications of plant tissue culture and plant biotechnology techniques in production of natural phytopharmaceuticals. It includes phytohormones, elicitors, explants and different culture media for increasing bioactive secondary metabolites. Manipulation of gene technology and biosynthesis for production of bioactive secondary metabolites.

3285 Drug Design of Natural Products تصميم الأدوية للمنتجات الطبيعية

The course describes the role of natural products in drug discovery. Lead compounds from natural products in key therapeutic areas. Bioactivity- and mechanism of action-directed isolation and characterization coupled with rational drug design, structure activity relationship, and mechanism of action studies are discussed. The molecular interaction of natural products with proteins/signaling molecules within cells are clarified. Identification of biological targets which help to identify new pharmacological targets for drug discovery and development.

3286 Complementary and Alternative Medicine الطب البديل والتكميلى

The course describes the prevalence of complementary and alternative medicinal use, diagnostic methods, neutraceuticals, cosmoceuticals, acupuncture, aromatherapy, autogenic training, flower remedies, biofeedback, chelation therapy, chiropractic, craniosacral therapy, cupping, and homeopathy. Cost evaluation of complementary and alternative medicine, safety issues in complementary and alternative medicine, legal and ethical issues regarding evidence-based, complementary, alternative and integrative medical therapies.

3296 Production of Medicinal Plants إنتاج النباتات الطبية

This course covers the technologies for the processing of medicinal plants and formulation of plant extracts into dosage forms, scaling up and industrial production of medicinal plants.Product file (raw material specification, method of analysis of raw materials, master formula, method of analysis of finished product, stability).

3401 Medical Terminology المصطلحات الطبية

This course covers concepts of medical terminology regarding prefixes, roots and suffixes, in addition to the meaning of various GIT, liver, spleen, cardiovascular, respiratory, kidney, skin, musculoskeletal, gynecological, obstetric, pediatric, geriatric, genital, eye, ear, nose, neurological and psychological diseases.

3412 Human Physiology علم وظائف الاعضاء

The course describes the animal cell, muscles, nerves, the physiological properties of protoplasm, the autonomic nervous system, including integration of autonomic functions and higher control centers. The cardiovascular system includes the heart, the circulation and special circulation as capillary, lymphatic and coronary circulations. Also, it covers kidneys, respiratory, and digestion systems and pH regulation.

3443 Pharmacology 1 علم الادوية 1

The course describes: the origin, discovery and safety of drugs, drug-drug interactions, principles of drug action and types of antagonism, measurement of drug concentration, drugs affecting neuromuscular transmission, drugs affecting parasympathetic system, drugs affecting sympathetic system.

3494 First Aid الإسعافات الأولية

This course covers the first aid procedures and basic techniques to handle common medical emergencies including obstructed airways, heart attacks, bleeding, shock, trauma, burns, eye injuries, nose injuries, animals and insect bites, fractures, sprains and strains, poisoning, diabetic emergencies, stroke, seizures, heat emergencies, cold emergencies in addition to order of treatment priority, legal and ethical points. The student must own an accepted first aid box throughout the teaching of this

3531 Biochemistry 1 كيمياء حيوي 1

The course covers the following: the amino acids and protein chemistry, the enzymes and enzyme kinetics, and principles of clinical enzymology, porphyrins and bile pigments, occurrence, structure, properties, function, derivatives, and types of hemoglobin. Nucleotides and nucleic acids, digestion and absorption of carbohydrates, lipids and proteins and digestive secretions, hormonal control of digestion, digestion and absorption of carbohydrate, lipids and protein, bacterial flora in the GIT. Also, this course covers carbohydrate chemistry, Monosaccharides, disaccharides, and homo- and hetero-polysaccharides.

3541 Biochemistry 2 كيمياء حيوي 2

The course covers the following: the carbohydrate metabolism, aerobic metabolism, citrate metabolism, electron transport, oxidative phosphorylation, shuttle mechanisms. Lipids digestion, absorption, and classification will be offered. Fatty acids biosynthesis, elongation, desaturation, and oxidation, ketone bodies, triglycerides, phospholipids, eicosanoid, cholesterol, lipid transport and lipoproteins metabolisms, protein metabolism; digestion and absorption, nitrogen balance, fate of ammonia, synthesis of non-essential amino acids. And finally the feeding-fasting cycle are included.
The course covers the following: the carbohydrate metabolism, aerobic metabolism, citrate metabolism, electron transport, oxidative phosphorylation, shuttle mechanisms. Lipids digestion, absorption, and classification will be offered. Fatty acids biosynthesis, elongation, desaturation, and oxidation, ketone bodies, triglycerides, phospholipids, eicosanoid, cholesterol, lipid transport and lipoproteins metabolisms, protein metabolism; digestion and absorption, nitrogen balance, fate of ammonia, synthesis of non-essential amino acids. And finally the feeding-fasting cycle are included.

3620 Microbiology and Immunology علم الأحياء الدقيقة والمناعة

The course covers the following topics: immune defense system, innate immunity, major histocompatibility complex (MHC), formation of functional MHC genes, antigen presentation by MHC, B-Cell & T-Cell receptors (BCR/TCR), B-Cell & T-Cell maturation, B-Cell & T-Cell activation, memory B-Cell & T-Cell, cytokines, cytotoxicity, complement system, termination of immune response, immunological tolerance, autoimmunity, hypersensitivity reaction and immunological aspects of tumors.

4101 Human Histology علم الأنسجة البشرية

The course describes the fundamental principles of histology of different organs and cells. This course will focus on the organ in terms of the cells and tissues that they are composed of. The course of histology will also delve into the microscopic structure of the cells, tissues, & organs.

4102 Biophysics علم الفزياء الحيوية

This course provides the student with laws of physics and its application to electric circuits, electromagnetic field,water, fluids, and temperature. Clinical/laboratory assessment techniques.

4104 Human Anatomy 1 علم التشريح 1

This course provides the fundamental knowledge related to normal human structures & functional anatomy of upper extremity (bones, joints, muscles, nerves, vessels & soft tissues). It also emphasizes on important regions: axilla, carpal tunnel, etc.

4111 Human Anatomy 2 علم التشريح 2

This course provides the fundamental knowledge related to normal human structures & functional anatomy of lower extremity (bones, joints, muscles, nerves, vessels & soft tissues) and abdominal wall.

4113 Community Health صحة مجتمع

This course provides the student with an analysis of the community diseases, that result from different types of pollutions.

4114 Psychology of the Handicapped علم النفس للمعاقين

This course enables the student to know and to analyze the underlying principles of Psychological aspects and theories of psychological behaviors of handicapped and how to deal with them during physical therapy sessions.

4115 Kinesiology علم الحركة

This course will provide an introduction to kinesiology including sports, activities, and the study of the mechanics of body movements. Students will learn about personal wellness and wellbeing as well as psychology and injuries associated with these fields.

4116	Ethics & Laws of PT	قوانين وأخلاقيات مهنة العلاج الطبيعي

This course provides the general laws (Egyptian & international) of the medical professional regarding the patients & stuff members. It provides the student with the ethics & behavior in dealing with the patients, families & care givers.

4121	Human Physiology 2	علم وظائف الاعضاء 2

This course provides the fundamental knowledge related to normal human physiology of respiratory, cardiovascular, lymphatic, female reproductive system, endocrine and structure & function of Kidney.

4122	Infection Control	التحكم في العدوي

This course focuses on instructing students about the principles of infection control in different healthcare students. Students are taught about best practices in infection control and the most common errors and mistakes made by healthcare professionals that facilitate the spread of infectious diseases and how to mitigate these issues.

4123	Tests & Measurements 1	اختبارات ومقاييس 1

This course focuses on teaching the students to assess and evaluate the physical problems of patients.

4126	Biomechanics	ميكانيكا حيوية 1

These courses provide the student with an analysis of torques, kinematics, kinetics, in normal addition to gait analysis.

4127	Therapeutic Exercises 1	تمرينات علاجية 1

This course enables the student to know and to analyze the underlying principles of the following types of therapeutic exercise: stretching, strengthening, active, assistive, active resistive, using manual resistance, pulleys, weights, hydraulics, elastics, robotics, and mechanical or electromechanical devices.

4132	Tests & Measurements 2	اختبارات ومقاييس 2

The course focuses on advanced topics in the evaluation of specific cases and disorders of patients.

4133 Electrotherapy 1 علاج كهربائي 1

This course provides the student with an in-depth knowledge of electrotherapeutic modalities, including alternating, direct, and pulsed current (e.g. high voltage pulsed current stimulation, interferential current); neuromuscular electrical stimulation (NMES); functional electrical stimulation (FES) for improving posture or movement; transcutaneous electrical nerve stimulation (TENS); iontophoresis, electrical muscle stimulation; and biofeedback in order to modulate or decrease pain; reduce or eliminate soft tissue inflammation caused by musculoskeletal, neuromuscular, peripheral vascular, or integumentary injury, disease, developmental delay, or surgery. This course is designed to prepare students to select, apply, integrate and critically evaluate the use, limitations, indications, and contraindications of electrotherapeutic modalities.

4134 Manual Therapy 1 علاج يدوي 1

This course works with the tissues of the body including the skin, the connective tissue and the musculature. A mechanical influence on the tissues is given by pressure, stretching and calming. Students are taught in this course on the different techniques for conducting a classic massage and how to train their hands for identifying stress points, trigger points, and for relieving the patient based on their condition.

4135 Occupational Therapy العلاج الوظائفي

This course provides the fundamental knowledge about the concepts, principles and application of occupational therapy procedures for various neurological, pediatric and geriatrics.

4136 Therapeutic Exercises 2 تمرينات علاجية 2

This course enables students to apply advnaced techniques and tools and devices to assisst patients with specific disorders.

4137 Hydrotherapy علاج مائي

This course provides the student with knowledge about the properties of water (Hot/Cold/Warm) and its uses in treatment. It also provides with the knowledge of underwater exercises.

4142 Human Pathology علم الامراض

This course provides the ability to describe the different morphological and functional changes that occur as a result of disorders and diseases of the Cardiovascular, respiratory, genetic diseases, endocrine disorders, some blood and lymphatic disorders, environmental diseases, drug abuse, nutritional and vitamins deficiency and correlate them with the clinical picture to diagnose the related diseases. It also provides the student with an analysis of the etiology, pathology, and clinical sciences of musculoskeletal, neuromuscular, integumentary, endocrine, and immune diseases, disorders, and condition (Clinical/laboratory assessment techniques).

4144 Principles of Rehabilitation مبادئ إعادة التأهيل

These courses enable the student to independently examine and reexamine a patient or client with musculoskeletal system problems by obtaining a pertinent history from the patient or client and from other relevant sources, to put a rehabilitation program specific to patient problem to help patient to return to the society independent

4145 Heat Therapy العلاج بالحرارة

In this course, students are introduced to heat therapy which is one of the oldest therapy methods. Students learn how to apply heat through different methods (e.g. wrapping, or special cushions with salt or cherrystones) to different regions or zones of the human body to provide pain or stress relief.

4146 Manual Therapy 2 علاج يدوي 2

This course focuses on training and teaching students to specially and intensively massage the patient in a rhythmic method stimulates through the subcutaneous tissue the fluids and flows in the body. In this way, hardened and solidified structures can be loosened and re-flowed. Students will also learn how to apply rhythmic massages to trigger point treatments as well as for supporting the patients breathing system.

4152 Exercise Physiology فسيولوجيا التمرينات

This course provides the student with knowledge of the physiological principles for understanding the response of the human body to exercise. The pulmonary, cardiovascular, musculoskeletal, neuromuscular, and metabolic responses to exercise and their implications in physical therapy intervention are explored. Energy delivery, utilization, and regulation of the major physiological systems during rest and exercise are discussed. Normal and abnormal responses to exercise, and the effects of exercise training on body composition, deconditioning, and health status are explored. Appropriate measurements of physiological functions are incorporated in the course in the form of laboratory experiences.

4153 Evidence Based Practice in PT الممارسة القائمة علي الأدلة في العلاج الطبيعي

This course will focus on teaching students how to use evidence-based reasoning methods in the context of physical therapy and general health care. Students will learn how to locate, read, assess knowledge in their fields and how to integrate this knowledge in research methodology or in their practice.

4161 Clinical Decision Making أتخاذ القرار الاكلينيكي

This course will focus on improving the ability for students to make decisions in the context of clinical practices that protect the health, safety, and privacy of the patients. Students will be taught about best-practices in clinical decisions making through different cases and simulations.

4163 Medical Laboratory Analysis التحاليل الطبية

Students in the course learn about the principles of laboratory analysis in the field of medicine and clinical sciences. Students will learn how about analysis processes in labs, analysis techniques, evaluating laboratory results from multiple tests, etc. Students will also learn how to apply the information from multiple tests in the field of physical therapy.

4164 Occupational Skills for PT المهارات المهنية للعلاج الطبيعي

Students in this course will learn about the different occupational and professional skills that they will need in order to work in a professional environment. Students will learn about basic occupational skills, communication skills, professional behavior, documentation and archiving, recording patient data, etc.

4165 Communication Therapy العلاج بالاتصالات

Students in this course will provide students a basic introduction into communication therapy. This course will serve as an introduction into pathologies and language issues relating to communication and methods of therapy. Students will learn how to conduct therapy for both speech and language issues.

4167 Electrotherapy 2 علاج كهربائي 2

This course provides stimulation (TENS): iontophoresis, electrical muscle stimulation; and biofeedback in order to modulate or decrease pain; reduce or eliminate soft tissue inflammation caused by musculoskeletal, neuromuscular, peripheral vascular, or integumentary injury, disease, developmental delay, or surgery. This course is designed to prepare students to select, apply, integrate and critically evaluate the use, limitations, indications, and contraindications of electrotherapeutic modalities.

4171 Ergonomics ميكانيكا العمل

This course provides the student with knowledge about the correction of body mechanics in industry to avoid injury and to increase production.

4172 Movement Therapy 1 علاج الحركي 1

This course focuses on the different types of movement that is used for therapeutic purposes. This includes psychotherapeutic techniques, artistic therapies, exercise therapies, movement therapies, and so on. Students are also taught how to integrate the different movement therapies with certain sounds, speech, music and other artistic therapies.

4173 Fundamentals of Pilates أساسيات بيلاتيس

This course focuses on the fundamentals of Pilates and how to instruct patients on following Pilates exercises. These techniques focus on strength trainings to help with common diseases such as arthritis, chronic back pain, and so on. Furthermore, Pilates is taught a preventative measure to avoid injuries such as knee injuries and certain sports related injuries.

4176 Introduction to Biostatistics مقدمة في الإحصاء الحيوي

Students in this course will be exposed to the principles of biostatistics. Students will learn how to gathering, organize, analyze and present data relevant to patient health and well-being. Students will be introduced to basic statistical programs as we as basic techniques (descriptive & inferential) in order to analyze different cases and to validate or reject hypotheses.

4181 Methods of Teaching & Instructing Patient طرق تدريس وتوجيه المرضى

This course enables the student to provide patient-related instruction, educate others using a variety of teaching methods that are commensurate with the needs and unique characteristics of the learner; provide consultative services using the physical therapist's skills to individuals, businesses, schools, government agencies, or other organizations; expressively and receptively communicate with patients, clients, family, caregivers, practitioners, consumers, payers, and policymakers; and take responsibility for communication or discussion of diagnoses or clinical impressions with other practitioners.

4182 Movement Therapy 2 علاج الحركي 2

This course provides students with the knowledge of more advanced techniques and approaches to movement therapy. This includes Eurythmytherapy, Nordic Walking, advanced topics in movement therapy and so on. Students are also taught how to integrate the different movement therapies with certain sounds, speech, music and other artistic aspects which can integrates physical, emotional and cognitive processes in humans.

4183 Differential Diagnosis in PT التشخيص التبياني في العلاج الطبيعي

This course provides the fundamental knowledge with the ability to screen the multiple body organ systems for diseases and syndromes that are not of musculoskeletal origin and determine the best course of action with a patient utilizing the best available assessment tools and measures and evidence-based practice to determine diagnosis, need for referral, or method of treatment.

4184 Electrodiagnosis التشخيص الكهربائي

This course teaches students to deal with new techniques and technology for the use and interpretation of electrophysiological tests for the diagnosis of different conditions and diseases.

4191 Research Methodology مناهج البحث العلمي

This course enables the student to utilize research methodology by applying the principles of scientific method to read and interpret professional literature. Students apply the principles of clinical decision making in the delivery of patient care to include identification of the problem; collection and interpretation of date; formulation of hypothesis; acceptance or rejection of hypothesis; determination of clinical decision; deliberate action; and reevaluation of actions. The final outcome of this course is a formulation of research protocol.

4192 Speech Therapy علم التخاطب

This course focuses on helping patients with different speech disorders. The course teaches students on different therapeutic techniques for speech to deal with specific conditions and disorders.

4193 Psychiatry أمراض نفسية

This course provides the student with the ability to understand the psychiatric disorders and diseases.

4241 Cardiovascular Pulmonary Diseases & Sur امراض القلب والصدر وجراحتها

This course will focus on providing students the ability to examine patients with cardiovascular pulmonary system problems. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4242 PT of Cardiovascular Pulmonary Diseases ع.ط. قلب وصدر وجراحتها

Through this course, students will be taught on how to apply their knowledge of cardiovascular pulmonary system diseases in order to conduct a comprehensive Physical Therapy diagnosis, design a comprehensive healthcare plan, conduct the therapy, and document progress. Students will learn specific techniques in physical therapy of the patients with these conditions as well as exercises and activities that patients should apply on their own.

4251 Internal Medicine & Gertiatrics امراض باطنة و مسنين

This course teaches students about the basics of internal medicine as well as geriatric diseases and. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4252 PT for Internal Medicine & Gertiatrics ع.ط. باطنة و مسنين

Through this course, students will be taught on how to apply their knowledge of internal medicine & geriatric diseases in order to conduct a comprehensive Physical Therapy diagnosis, design a comprehensive healthcare plan, conduct the therapy, and document progress. Students will learn specific techniques in physical therapy of the patients with these conditions as well as exercises and activities that patients should apply on their own.

4271 Neuroanatomy التشريح العصبي

This aim of the course is to introduce students to the structural organization of the human central nervous including modern theories of pain and its presentations. This course will provide student with foundation to conduct additional studies on the nervous system from a clinical perspective.

4272	**Neurophysiology**	الفسيولوجيا العصبية

Students in this course will learn about the principles of neurophysiology. Students will be exposed to the underlying brain functions relating to neurons, neuronal circuits, ions channels, and the function of neurons.

4281	**Neurology & Neurosurgery**	أمراض الأعصاب وجراحة الأعصاب

This course teaches students about the basics of Neurology & Neurosurgery. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4282	**PT of Neurosurgery**	ع.ط. جراحة الأعصاب

Through this course, students will be taught on how to apply their knowledge of Neurosurgery in order to conduct a comprehensive Physical Therapy diagnosis, design a comprehensive healthcare plan, conduct the therapy, and document progress. Students will learn specific techniques in physical therapy of the patients with these conditions as well as exercises and activities that patients should apply on their own.

4283	**PT of Neurology**	ع.ط. أمراض الأعصاب

Through this course, students will be taught on how to apply their knowledge of Neurology in order to conduct a comprehensive Physical Therapy diagnosis, design a comprehensive healthcare plan, conduct the therapy, and document progress. Students will learn specific techniques in physical therapy of the patients with these conditions as well as exercises and activities that patients should apply on their own.

4284	**Geriatric Rehabilitation**	تأهيل مسنين

The basis of geriatric rehabilitation is to assist the disabled aged in recovering lost physical, psychological, or social skills so that they may become more independent, live in personally satisfying environments, and maintain meaningful social interactions.

4372	**Women's Health**	صحة المرأة

This course teaches students about the basics of women's health. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4373	**PT for Women's Health**	ع.ط. لصحة المرأة

These courses enable the student to independently examine and reexamine a patient or client in the field of women's health problems by obtaining a pertinent history from the patient or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.

4381 Motor Development 1 التحكم الحركى 1

This course will focus on the fundamentals of motor control, motor skills, and the role of the neuromuscular system. Students will learn how motor skills are learned as well as how the can be re-learned in different contexts. Diseases affecting motor control will also be covered.

4391 Pediatrics & Pediatric Surgery أمراض الأطفال وجراحتها

This course teaches students about the basics of pediatrics & pediatric surgery. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4392 PT of Pediatrics & Pediatric Surgery ع.ط. لأمراض الأطفال وجراحتها

These courses enable the student to independently examine and reexamine a patient or client in the field of pediatrics and pediatric surgery by obtaining a pertinent history from the patient or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.

4394 Neonatal Care العناية للأطفال حديثي الولادة

Students in this course will learn how to deal with neonatal patients. Students will be taught about how to provide the necessary care for neonatal patients as well as neonatal care in ICUs. Students will learn how to develop a neonatal care plan of care development as well as conduct evidence-based interventions.

4395 Motor Development 2 التحكم الحركى 2

This course provides and advanced and in-depth knowledge of motor control as well as theories or motor control and motor learning. The course delves into the methods of learning and acquired skilled behavior and as well as the neuroscience, biomechanics, and psychology of learning, acquiring, retaining, and re-learning different motor skills. Topics include sensorimotor integration, balance, locomotion, and basic arm movements.

4441 Radiology 1 الأشعة 1

It provides the student with the ability to read and analyze the investigations of musculoskeletal system using X rays. It provides the students with the ability to read and analyze the investigations of musculoskeletal system using x-rays and other imaging modalities.

4451 Dermatology علم الأمراض الجلدية

It provides the student to examine and re-examine a patient with skin diseases and problems of genitourinary that has an impact on physical function.

4452	**Burns & General Surgery**	حروق وجراحة عامة

This course teaches students about the basics of burns & general surgery. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4453	**PT of Burns & General Surgery**	ع.ط. للحروق والجراحة العامة

This course students students to treate and manage cases of burns and plastic surgery before and after surgey.

4461	**Orthopedics & Orthopedic Surgery**	أمراض العظام و جراحتها

This course teaches students about the basics of orthopedics & orthopedic surgery. Students will be taught about methods of obtaining & examining relevant patient history & selecting appropriate texts and examinations.

4462	**PT of Orthopedics & Orthopedic Surgery**	ع.ط. أمراض العظام و جراحتها

At the end of this course the student will be able to know the types of orthopedic disorders, manifestations, diagnostic procedures and interventions

4463	**PT of Trauma & Sports Injuries**	ع.ط. الإصابات الرياضية والصدمات الرياضية

These courses enable the student to independently examine and reexamine a patient or client with musculoskeletal system problems (sprains, strains, confusions, edema…etc.) by obtaining a pertinent history from the patient or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.

4464	**Orthotics & Prosthesis**	الجبائر و الاطراف الصناعية

Course Aim: This course is characterized by description of different types of orthoses and protheses used for different sports injury and deformities as well as prostheses for different levels of amputations

4465	**Radiology 2**	الأشعة 2

This course provides the fundamental knowledge to read & understand radiological investigations of traumatology and orthopedics disorders. In addition to other imaging methods.

4491 PT of Dermatological Diseases ع.ط. الأمراض الجلدية

These courses enable the student to independently examine and reexamine a patient or client with genito-urinary, integumentary, problems by obtaining a pertinent history from the patient or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.

5221 Human Nutrition علم تغذية الإنسان

Principles of Human Nutrition the physiological requirements and functions of major components i.e. protein, energy, lipids, vitamins and minerals, health and diseases in human populations. Dietary sources, intake levels, physiological role, and requirement of major nutrients. The biological determinants of nutrient requirements and the assessment of nutrient status in individuals and populations. The role of nutrition in growth and health through the life cycle. The rationale for the development of dietary guidelines and of nutrition policies in different countries. BMR and REE: Energy Balance, Body Mass index, Body Fat and Body Water, Dietary and Nutrient, Recommendations, Dietary Guidelines, Food Guide Pyramids, and Other Aids, Dietary Reference Intakes, Nutritional Irregularities, Malnutrition, Protein-Energy Malnutrition, Kwashiorkor Syndrome, Marasmus, Carbohydrate Deficiency, Deficiencies in Essential Fatty Acids, Mineral Deficiencies, Mineral Toxicity, Dehydration, Vitamin Deficiency and Toxicity, The Role of Diet in Cardiovascular Disease and Cancer, The Role of Diet in Diabetes, and Gastrointestinal Health, The Role of Diet in Diabetes, and Gastrointestinal Health, Food and Environmental Factors.

Total Number of Courses: 90