

RIPHAH INTERNATIONAL UNIVERSITY
FAISALABAD



SELF ASSESSMENT REPORT

Doctor of Physical Therapy

June 2017

Prepared by:

Riphah College of Rehabilitation Sciences

Reviewed by:

Quality Enhancement Cell

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1.0 Executive Summary

This report is being prepared almost at the end of the assessment cycle for selected programs of Riphah International University. As per requirements of Higher Education Commission (HEC), Quality Enhancement Cell (QEC) was formed in Riphah International University in Oct 2009. Program Team Members of all four faculties, notified by University, worked with Director QEC to pursue the application of Self-Assessment Manual in their respective departments. From each faculty one program was selected.

In Riphah College of Rehabilitation Sciences Doctor of Physical Therapy (DPT) Program was selected for self-assessment, evaluation and improvements. A strong commitment of Respected Vice Chancellor to support QEC made the difference and resultantly, a cycle of assessment is about to complete.

1.1 Objectives

Following are the two main objectives of the self-assessment report:-

- a To implement Self-Assessment Manual in selected program with a view to improve quality in higher education.
- b To identify the areas requiring improvements in order to achieve objectives through desired outcomes.

1.2 Execution

A soft copy of self-assessment manual was given to all faculty members. Quality Awareness Lecture and Workshop on preparation of Self-Assessment Report (SAR) were arranged for the Deans/In-charge Programs and Program Team (PT) Members of the selected program. Hard copies of HEC issued 10 proformas, 8 criterion and 31 standards were provided to PT members to evaluate their respected program against defined standards. The PT members with an intimate support and follow up of QEC, completed the SAR and forwarded to QEC in given time frame.

After reviewing SAR, QEC arranged visit of Assessment Team to the selected program. QEC Officer accompanied the AT Team and participated in discussions with In-charge Program / Program Team members and available faculty members.

The Chairman AT during his visit, indicated salient points of the SAR, account of his discussions with the faculty members, improvements required in the infrastructure, syllabi and training of the faculty and support staff.

The implementation plan indicates the resources required to improve the infrastructure, environment in the classes and E-Learning. The tasks have been completed on fast track by the combined efforts of Head of Department, QEC officer and Administration of Faisalabad Campus.

At the completion of Self-Assessment cycle, QEC is going to submit the hard and soft copy of SAR to HEC by 30 June 2017.

Director
Quality Enhancement Cell

Self-Assessment Report

2.0 Introduction

Riphah International University is a private university, chartered by the Federal Government of Pakistan in 2002. The university was established with a view to produce professionals with Islamic moral and ethical values. The Riphah International University is committed to promote and impart quality education with character building of the new generation in the light of Islamic principles and values. Riphah International University is committed to a value based integrated educational philosophy.

2.1 University Mission Statement

Establishment of state of the art educational institutions with a focus on inculcation of Islamic ethical values

2.2 Riphah College of Rehabilitation Sciences (RCRS)

Riphah College of Rehabilitation Sciences is running following program:

- a. Doctor of Physical Therapy (DPT)
- b. MS Orthopedic Manual Physical Therapy (OMPT)

2.3 Program Selected

Riphah College of Rehabilitation Sciences has selected the Doctor of Physical Therapy (DPT) Program for Self-Assessment Report (SAR) for the year 2016-17 under the directives of HEC. The program has got inbuilt mechanism for the revision of syllabi, has competent faculty and adequate infrastructure.

This program followed HEC accredited Curriculum made by National Curriculum Revision Committee (NCRC) of HEC.

2.4 Program Evaluation

The program is being evaluated based on 8 criterion and 31 standards as given in the Self-Assessment Manual provided by Higher Education Commission (HEC).

3.0 Criterion 1: Program Mission, Objectives and Outcomes

3.1 Standard 1-1

The program must have documented measurable objectives that support institution mission statements.

3.1.1 Program Mission Statement

The mission of faculty of **Doctor of Physical Therapy (DPT)** is to exhibit excellence in teaching and research for our undergraduate students with emphasis on Islamic ethical values, integrity, social responsibility and entrepreneurial spirit along with continuous learning.

3.1.2 Program Objectives

Graduates of the doctor of physiotherapy program shall:

1. To demonstrate in-depth knowledge of the basic and clinical sciences relevant to physical therapy, both in their fundamental context and in their application to the discipline of physical therapy.
2. To understand, correlate and apply theoretical foundations of knowledge to the practice of physical therapy; evaluate and clarify new or evolving theory relevant to physical therapy.
3. To demonstrate the behaviors of the scholarly clinician by developing and utilizing the process of critical thinking and inquiry, particularly focused on the improvement of the practice of physical therapy and the delivery of health care.
4. To engage in reflective practice through sound clinical decision making, critical self-assessment and commitment to lifelong learning.
5. To demonstrate mastery of entry level professional clinical skills. Provision of these services is based on the best available evidence and includes physical therapy examination, evaluation, diagnosis, prognosis, intervention, prevention activities, wellness initiatives and appropriate health care utilization.
6. To be prepared to influence the development of human health care regulations and policies that are consistent with the needs of the patient and of the society.
7. To demonstrate leadership, management, and communication skills to effectively participate in physical therapy practice and the health care team.
8. To incorporate and demonstrate positive attitudes and behaviors to all persons.
9. To demonstrate the professional and social skills to adapt to changing health care environments to effectively provide physical therapy care.

3.1.3 Alignment of Program Objectives with Program & University Mission Statements

Program objectives intend to impart not only clinical and diagnostic skills but moral and ethical information as well. This is done through planned set of activities during the execution of the DPT program. These activities include overall curriculum composition and its delivery, practical work and projects performed at required stages and House Job Placements to expose students to professional environment.

3.1.4 Main Elements of Strategic Plan

The main elements as discussed above, of a strategic plan for the selected course are as under:

- a. Curriculum Composition
- b. Practical work and projects
- c. House Job Placements

3.1.4.1 Curriculum Composition

DPT program comprises of core courses as per university requirements. It has 64 core courses. Curriculum is divided into different segments that builds student's base through basic set of courses and imparts advance knowledge by using advance courses. List of courses is available in section 3.3.1.

3.1.4.2 Practical Work and Projects

Practical work and projects are planned at desired stages during the program execution to enhance the working skills of the students. Clinical setting in Mujahid Hospital, Khatoon-e-Jannat Hospital and United Hospital is available for students to practice the clinical work. At the end of their program, students are required to submit a final project that demonstrates their analysis, designing, solution building, implementation and report writing skills, in the form of designed project and its technical report.

3.1.4.3 House Job Placements

Clinical setting in Mujahid Hospital, Khatoon-e-Jannat Hospital and United Hospital provides indoor and outdoor Physical therapy services that can offer placement work to RCRS students. House Job provides students with the opportunity to work in professional environment along with experienced professionals and learn from their experiences. This aspect of program also

opens the doors of opportunities for talented students to seek permanent position in the participant hospital.

3.2 Standard 1-2

The program must have documented outcomes for graduating students. It must be demonstrated that the outcome support the program objectives and that graduating students are capable of performing these outcomes.

3.2.1 Program Outcomes

The DPT (Doctor of Physical Therapy) Program is designed to produce following outcomes:

1. Graduates will be able to demonstrate in-depth knowledge of the basic and clinical sciences relevant to physical therapy, both in their fundamental context and in their application to the discipline of physical therapy.
2. Graduates will understand, correlate and apply theoretical foundations of knowledge to the practice of physical therapy; evaluate and clarify new or evolving theory relevant to physical therapy
3. Graduates will be able to demonstrate the behaviors of the scholarly clinician by developing and utilizing the process of critical thinking and inquiry, particularly focused on the improvement of the practice of physical therapy and the delivery of health care.
4. Graduates will engage in reflective practice to provide evidence based Physical Therapy, sound clinical decision making, critical self-assessment and commitment to lifelong learning.
5. Graduates will be able to demonstrate mastery of entry level professional clinical skills. Provision of these services is based on the best available evidence and includes physical therapy examination, evaluation, diagnosis, prognosis, intervention, prevention activities, wellness initiatives and appropriate health care utilization.
6. Graduates will be prepared to influence the development of human health care regulations and policies that are consistent with the needs of the patient and of the society.

7. Graduates will demonstrate leadership, management, and communication skills to effectively participate in physical therapy practice and the health care team.
8. Graduates will be able to Incorporate and demonstrate positive attitudes and behaviors to all persons.
9. Graduates will be able to demonstrate the professional and social skills to adapt to changing health care environments to effectively provide physical therapy care.
10. Graduates will be able to carry out a consultation with a patient.
11. Graduates will be able to diagnose and manage clinical presentations.
12. Graduates will be able to carry out practical procedures safely and effectively.
13. Graduates will be able to behave according to ethical and legal principles.
14. Graduates will be able to reflect, learn and teach others.
15. Graduates will be able to learn and work effectively within a multi-professional team.
16. Graduates will be able to protect patients and improve care.

3.2.2 Program Objectives and Outcomes Matching

Program Objectives	Program Outcomes															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X	X	X						X						X	
2		X	X	X								X				X
3		X		X	X	X	X							X	X	
4		X		X						X					X	
5				X				X						X		X
6				X					X				X	X		
7		X			X								X			
8								X								
9									X							

Table 1: Outcomes versus Objectives

3.3 Standard 1-3

The results of Program's assessment and the extent to which they are used to improve the program must be documented.

The program is being evaluated based on 8 criterion and 31 standards as given in the Self-Assessment Manual provided by Higher Education Commission (HEC).

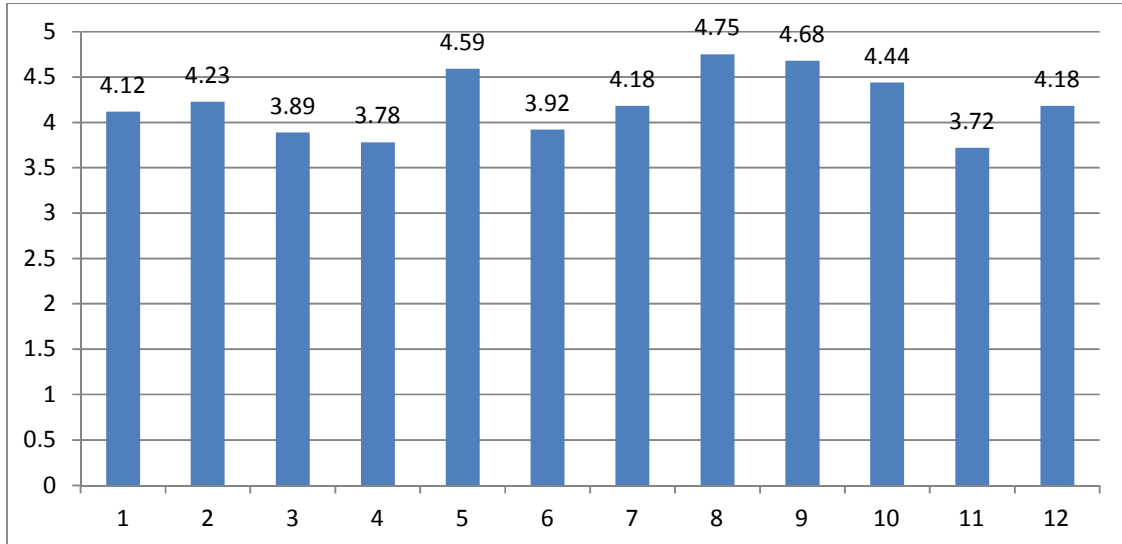
QEC staff carries out course and teacher evaluation survey in order to ensure unbiased feedback from students. The gathered data is analyzed by QEC and results are provided to department officials for further actions.

Dean of the Faculty of Rehabilitation Sciences reviews the output and decides to put up the results in Board of Studies and Board of Faculty meetings for further discussion and actions. Initially the results are brought up in Board of Studies, who may decide to move results to higher level for discussion and decisions if required. This meeting is held during summer time every year.

The result of the program assessment is shown below in graphical charts for courses evaluation and teachers' evaluations.

3.3.1 Course Evaluation

Courses evaluation is shown in the following graphical chart:



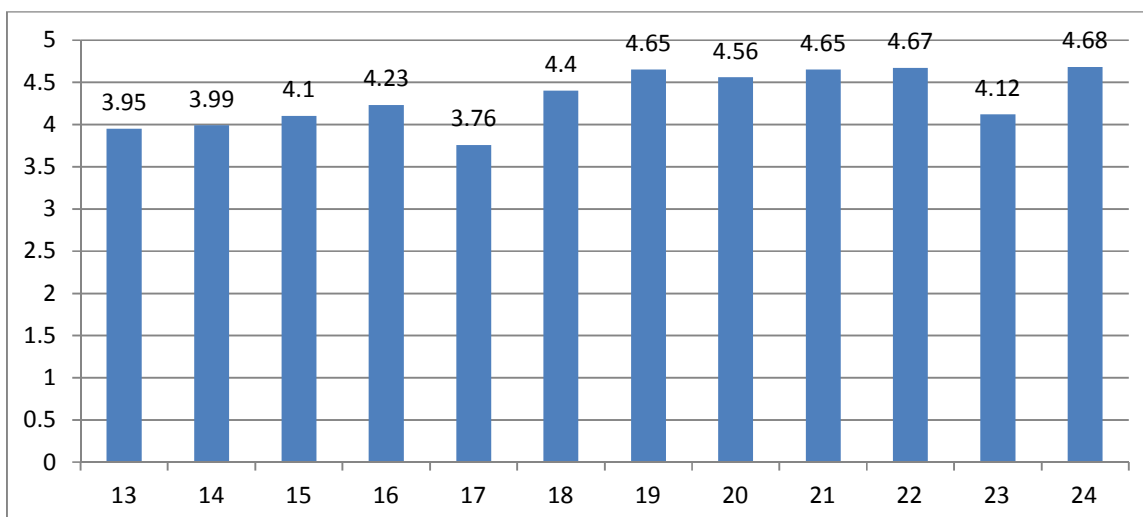


Figure 1: Course Evaluation Bar Chart

Students have graded the courses against the course structure, teaching methodology, learning objectives and outcomes and practical implementation of theory. The total graded marks are 5. Following is the list of courses that are being evaluated by the students along with their course code and graded scores.

Sr. No	Course	Marks
1	ANATOMY -I	4.12
2	PHYSIOLOGY-I	4.23
3	KINESIOLOGY-I	3.89
4	ENGLISH-I	3.78
5	PAKISTAN STUDIES	4.59
6	BIOSTATISTICS-1	3.92
7	ANATOMY -II	4.18
8	PHYSIOLOGY-II	4.75
9	KINESIOLOGY-II	4.68
10	ENGLISH-II	4.44
11	ISLAMIC STUDIES / ETHICS	3.72
12	INTRODUCTION TO REVEALED SCIENCES	4.18
13	ENGLISH-III	3.95
14	INTRODUCTION TO COMPUTER	3.99
15	ANATOMY -III	4.10
16	PHYSIOLOGY-III	4.23
17	BIOMECHANICS & ERGONOMICS-I	3.76
18	BIOCHEMISTRY & GENETICS-I	4.40
19	ANATOMY -IV	4.65

20	BIOMECHANICS & ERGONOMICS-II	4.56
21	BEHAVIORAL SCIENCES (<i>Psychiatry & Psychology</i>)	4.65
22	BIOCHEMISTRY & GENETICS II	4.67
23	EXERCISE PHYSIOLOGY-	4.12
24	MEDICAL PHYSICS	4.68

3.3.2 Teachers Evaluation

Teacher's evaluation is shown in the following graphical chart:

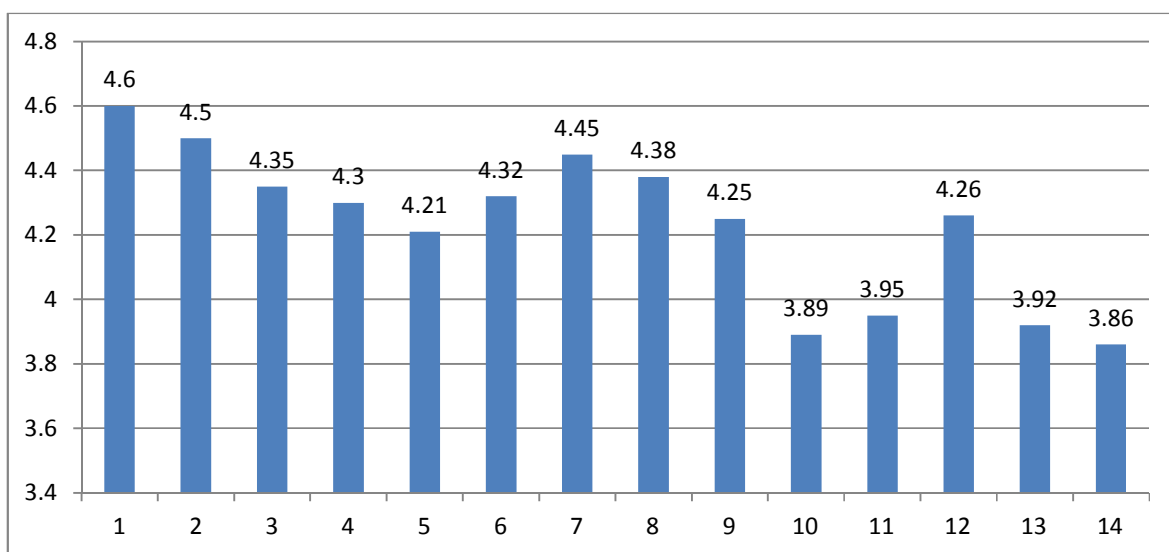


Figure 2: Teachers Evaluation Graph

Students have graded the teachers against their lecture preparation, punctuality, general behavior, subject knowledge and teaching methodology. The total graded marks are 5. Following is the list of teachers that are being evaluated by the students along with the serial number and graded scores.

Sr. No	Teacher Name	Marks
1	Dr. Muhammad Kashif	4.60
2	Dr. Asif Ali Butt	4.50
3	Dr. Humaira Iram	4.35
4	Dr. Nosheen Manzoor	4.30
5	Dr. Fatima Nawaz	4.21

6	Dr. Aamna Mudassir	4.32
7	Dr. Bushra Haroon	4.45
8	Dr. Hafiza Khansa Shabbir	4.38
9	Dr. Mahat Zafar	4.25
10	Mr. Muhammad Waseem Mehmood	3.89
11	Mr. Muhammad Ramzan	3.95
12	Miss Aamna Aftab	4.26
13	Dr. Ahmed Bilal	3.92
14	Dr. Basit	3.86

This evaluation was carried out by Quality Enhancement Cell to ensure the unbiased feedback from students. QEC staff visited different classes and gathered feedback as desired. QEC performed analysis of the data and submitted the results to Director for further actions.

3.4 DPT Program Strong and Weak Points

DPT program is designed to educate students to meet the challenges of the modern world and present clinical needs. During the execution of the program several observations were made that can be categorized as strong and weak points of the program. These points are listed below:

DPT Program Strong Points:

- a. Highly qualified and experienced faculty
- b. The curriculum has rich and logically arranged courses to prepare the students to be competent in research and professionally.
- c. Research oriented environment
- d. Attractive scholarship
- e. Up-to date Labs
- f. Attachment with Community Hospitals

DPT program Weak Points:

- a. Lack of IT lab in terms of space and infrastructure
- b. Lack of Clinical Rehab Set-up
- c. Lack of auditorium for curricular and co-curricular activities.

3.5 Significant Future Development Plans

Significant future development plan for the program includes:

- a. Clinical set up for Rehabilitation
- b. Pathology Lab
- c. Availability of Medical Doctor and Emergency set-up
- d. MS Program

3.6 Standard 1-4

The department must assess its overall performance periodically using quantifiable measures.

3.6.1 Graduates/Undergraduates enrolled in during year 2015-16

Year	Enrolled
2014	62
2015	42
2016	75

3.6.2 Student Faculty Ratio:

RCRS has 10:1 ratio.

3.6.3 Average GPA per semester:

The average GPA is 2.85

3.6.4 Average Completion time

The DPT program has average completion time of 5 years consisting of 10 semesters.

3.6.5 Students Course Evaluation Response Rate (Average)

Student's course evaluation average response rate for all courses is 30.

3.6.6 Students Faculty Evaluation

QEC staff conducted the teacher's evaluation to ensure unbiased feedback. The feedback was taken manually.

3.6.7 Research

The faculty of RCRS, Faisalabad Campus published research papers in different journals. List is attached in Annexure E.

3.6.8 Community Service

1. Education Awareness Seminars
2. Education Services

3. Community Awareness Camps
4. Community Rehabilitation Camps

4.0 Criterion 2: Curriculum Design and Organization

4.1 Title of Degree Program

Doctor of Physical Therapy (DPT)

4.2 Definition of credit hour:

1 Credit Hours is 1 contact hours for theory and 2 contact hours for laboratory work and 3 contact hours for clinical practice.

4.3 Degree plan

Following is the list of core courses taught in the selected program. Section 4.5 shows the details about these courses.

SEMESTER/YEAR	Course Code	NAME OF SUBJECT	CREDITS
		FIRST PROFESSIONAL YEAR	
FIRST	DPAN614	ANATOMY –I	4(3-1)
	DPPH613	PHYSIOLOGY-I	3(2-1)
	DPKI613	KINESIOLOGY-I	3(2-1)
	DPEN613	ENGLISH-I	3(3-0)
	DPPS612	PAKISTAN STUDIES	2(2-0)
	DPBI613	BIOSTATISTICS-1	3(3-0)
			18
SECOND	DPAN624	ANATOMY –II	4(3-1)
	DPPH623	PHYSIOLOGY-II	3(2-1)
	DPKI623	KINESIOLOGY-II	3(2-1)
	DPEN623	ENGLISH-II	3(3-0)
	DPIS612	ISLAMIC STUDIES / ETHICS	2(2-0)
	DPRS613	INTRODUCTION TO REVEALED SCIENCES	3(3-0)
			18
		SECOND PROFESSIONAL YEAR	
THIRD	DPRN633	ENGLISH-III	3(3-0)
	DPCO613	INTRODUCTION TO COMPUTER	3(2-1)
	DPAN633	ANATOMY –III	3(2-1)
	DPPH633	PHYSIOLOGY-III	3(2-1)
	DPBE613	BIOMECHANICS &	3(3-0)

		ERGONOMICS-I	
	DPBG613	BIOCHEMISTRY & GENETICS-I	3(3-0)
			18
FOURTH	DPAN643	ANATOMY –IV	3(2-1)
	DPBE623	BIOMECHANICS & ERGONOMICS-II	3(2-1)
	DPBS613	BEHAVIORAL SCIENCES (Psychiatry & Psychology)	3(3-0)
	DPBG623	BIOCHEMISTRY & GENETICS II	3(2-1)
	DPEP643	EXERCISE PHYSIOLOGY-	3(3-0)
	DPMP613	MEDICAL PHYSICS	3(2-1)
			18
		THIRD PROFESSIONAL YEAR	
FIFTH	DPPM612	PATHOLOGY & MICROBIOLOGY I	2(2-0)
	DPPR613	PHARMACOLOGY I	3(3-0)
	DPPE613	PHYSICAL AGENTS & ELECTROTHERAPY -I	3(2-1)
	DPTE613	THERAPEUTIC EXERCISES & TECHNIQUES I	3(2-1)
	DPSO612	SOCIOLOGY	2(2-0)
	DPHW613	HEALTH & WELLNESS	3(3-0)
	DPPC612	SUPERVISED CLINICAL PRACTICE I	2(0-2)
			18
SIXTH	DPPM623	PATHOLOGY & MICROBIOLOGY II	3(2-1)
	DPPR623	PHARMACOLOGY II	3(3-0)
	DPPE623	PHYSICAL AGENTS & ELECTROTHERAPY -II	3(2-1)
	DPTE623	THERAPEUTIC EXERCISES & TECHNIQUES II	3(2-1)
	DPHE612	HEALTH EDUCATION & TEACHING METHODOLOGY	2(2-0)
	DPCM612	COMMUNITY MEDICINE	2(2-0)
	DPCP622	SUPERVISED CLINICAL PRACTICE II	2(0-2)
			18

		FOURTH PROFESSIONAL YEAR	
SEVENTH	DPME613	MEDICINE I	3(3-0)
	DPSU613	SURGERY I	3(3-0)
	DPRD613	RADIOLOGY & DIAGNOSTIC IMAGING -	3(2-1)
	DPMU614	MUSCULOSKELETAL PHYSICAL THERAPY	4(3-1)
	DPSE612	SPECIAL EDUCATION AND COMMUNITY BASED REHABILITATION	2(2-0)
	DPCP632	SUPERVISED CLINICAL PRACTICE III	2(0-2)
			17
EIGHT	DOME623	MEDICINE II	3(3-0)
	DPSU623	SURGERY II	3(3-0)
	DPNE614	NEUROLOGICAL PHYSICAL THERAPY	4(3-1)
	DPEB613	EVIDENCE BASED PRACTICE	3(2-1)
	DPPO613	PROSTHETICS & ORTHOTICS	3(2-1)
	DPCP642	SUPERVISED CLINICAL PRACTICE IV	2(0-2)
			18
		FIFTH PROFESSIONAL YEAR	
NINTH	DPCA613	CARDIOPULMONARY PHYSICAL THERAPY	3(2-1)
	DPMT613	MANUAL THERAPY	3(2-1)
	DPCD613	CLINICAL DECISION MAKING & DIFFERENTIAL DIAGNOSIS	3(3-0)
	DPRM613	RESEARCH DESIGN & METHODOLOGY	3(2-1)
	DPPP612	PROFESSIONAL ETHICS PRACTICE (LAWS ADMINISTRATION)	2(2-0)
	DPIN612	INTEGUMENTARY PHYSICAL THERAPY	2(2-0)

	DPCP652	SUPERVISED CLINICAL PRACTICE V	2(0-2)
			18
TENTH	DPGO612	GYNAECOLOGY & OBSTETRICS PHYSICAL THERAPY	2(2-0)
	DPPA612	PAEDIATRIC PHYSICAL THERAPY	2(2-0)
	DPGE612	GERIATRIC PHYSICAL THERAPY	2(2-0)
	DPSP612	SPORTS PHYSICAL THERAPY	2(2-0)
	DPEP612	EMERGENCY PROCEDURES	2(2-0)
	DPCP662	SUPERVISED CLINICAL PRACTICE VI	2(0-2)
	DPRP616	RESEARCH PROJECT	6
			18
		TOTAL CREDITS	179
SEMESTER/YEAR	Course Code	NAME OF SUBJECT	CREDITS
		FIRST PROFESSIONAL YEAR	
FIRST	DPAN614	ANATOMY –I	4(3-1)
	DPPH613	PHYSIOLOGY-I	3(2-1)
	DPKI613	KINESIOLOGY-I	3(2-1)
	DPEN613	ENGLISH-I	3(3-0)
	DPPS612	PAKISTAN STUDIES	2(2-0)
	DPBI613	BIOSTATISTICS-1	3(3-0)
			18
SECOND	DPAN624	ANATOMY –II	4(3-1)
	DPPH623	PHYSIOLOGY-II	3(2-1)
	DPKI623	KINESIOLOGY-II	3(2-1)
	DPEN623	ENGLISH-II	3(3-0)
	DPIS612	ISLAMIC STUDIES / ETHICS	2(2-0)
	DPRS613	INTRODUCTION TO REVEALED SCIENCES	3(3-0)
			18
		SECOND PROFESSIONAL YEAR	
THIRD	DPRN633	ENGLISH-III	3(3-0)

	DPCO613	INTRODUCTION TO COMPUTER	3(2-1)
	DPAN633	ANATOMY –III	3(2-1)
	DPPH633	PHYSIOLOGY-III	3(2-1)
	DPBE613	BIOMECHANICS & ERGONOMICS-I	3(3-0)
	DPBG613	BIOCHEMISTRY & GENETICS-I	3(3-0)
			18
FOURTH	DPAN643	ANATOMY –IV	3(2-1)
	DPBE623	BIOMECHANICS & ERGONOMICS-II	3(2-1)
	DPBS613	BEHAVIORAL SCIENCES (<i>Psychiatry & Psychology</i>)	3(3-0)
	DPBG623	BIOCHEMISTRY & GENETICS II	3(2-1)
	DPEP643	EXERCISE PHYSIOLOGY-	3(3-0)
	DPMP613	MEDICAL PHYSICS	3(2-1)
			18
		THIRD PROFESSIONAL YEAR	
FIFTH	DPPM612	PATHOLOGY & MICROBIOLOGY I	2(2-0)
	DPPR613	PHARMACOLOGY I	3(3-0)
	DPPE613	PHYSICAL AGENTS & ELECTROTHERAPY -I	3(2-1)
	DPTE613	THERAPEUTIC EXERCISES & TECHNIQUES I	3(2-1)
	DPSO612	SOCIOLOGY	2(2-0)
	DPHW613	HEALTH & WELLNESS	3(3-0)
	DPPC612	SUPERVISED CLINICAL PRACTICE I	2(0-2)
			18
SIXTH	DPPM623	PATHOLOGY & MICROBIOLOGY II	3(2-1)
	DPPR623	PHARMACOLOGY II	3(3-0)
	DPPE623	PHYSICAL AGENTS & ELECTROTHERAPY -II	3(2-1)
	DPTE623	THERAPEUTIC EXERCISES & TECHNIQUES II	3(2-1)
	DPHE612	HEALTH EDUCATION & TEACHING	2(2-0)

		METHODOLOGY	
	DPCM612	COMMUNITY MEDICINE	2(2-0)
	DPCP622	SUPERVISED CLINICAL PRACTICE II	2(0-2)
			18
		FOURTH PROFESSIONAL YEAR	
SEVENTH	DPME613	MEDICINE I	3(3-0)
	DPSU613	SURGERY I	3(3-0)
	DPRD613	RADIOLOGY & DIAGNOSTIC IMAGING -	3(2-1)
	DPMU614	MUSCULOSKELETAL PHYSICAL THERAPY	4(3-1)
	DPSE612	SPECIAL EDUCATION AND COMMUNITY BASED REHABILITATION	2(2-0)
	DPCP632	SUPERVISED CLINICAL PRACTICE III	2(0-2)
			17
EIGHT	DOME623	MEDICINE II	3(3-0)
	DPSU623	SURGERY II	3(3-0)
	DPNE614	NEUROLOGICAL PHYSICAL THERAPY	4(3-1)
	DPEB613	EVIDENCE BASED PRACTICE	3(2-1)
	DPPO613	PROSTHETICS & ORTHOTICS	3(2-1)
	DPCP642	SUPERVISED CLINICAL PRACTICE IV	2(0-2)
			18
		FIFTH PROFESSIONAL YEAR	
NINTH	DPCA613	CARDIOPULMONARY PHYSICAL THERAPY	3(2-1)
	DPMT613	MANUAL THERAPY	3(2-1)
	DPCD613	CLINICAL DECISION MAKING & DIFFERENTIAL DIAGNOSIS	3(3-0)
	DPRM613	RESEARCH DESIGN & METHODOLOGY	3(2-1)
	DPPP612	PROFESSIONAL ETHICS	2(2-0)

		PRACTICE (LAWS ADMINISTRATION)	
	DPIN612	INTEGUMENTARY PHYSICAL THERAPY	2(2-0)
	DPCP652	SUPERVISED CLINICAL PRACTICE V	2(0-2)
			18
TENTH	DPGO612	GYNAECOLOGY & OBSTETRICS PHYSICAL THERAPY	2(2-0)
	DPPA612	PAEDIATRIC PHYSICAL THERAPY	2(2-0)
	DPGE612	GERIATRIC PHYSICAL THERAPY	2(2-0)
	DPSP612	SPORTS PHYSICAL THERAPY	2(2-0)
	DPEP612	EMERGENCY PROCEDURES	2(2-0)
	DPCP662	SUPERVISED CLINICAL PRACTICE VI	2(0-2)
	DPRP616	RESEARCH PROJECT	6
			18
		TOTAL CREDITS	179

4.4 Curriculum Breakdown

Semester	Course Number	Core Courses	Humanities and Social Sciences	Clinical Practice	Administration and Ethics	Research
1	6	3	3	0	0	0
2	6	3	3	0	0	0
3	6	2	2	0	0	0
4	6	4	1	0	0	0
5	7	3	1	1	0	0
6	7	4	0	1	0	0
7	6	3	0	1	0	0

8	6	4	0	1	0	0
9	7	4	0	1	1	0
10	7	1	0	1	0	1

Table 3: Curriculum Course Requirements (table 4.3)

4.5 Courses Information/ outline

4.5.1 ANATOMY

Objective

The focus of this course is an in-depth study and analysis of the regional and systemic organization of the body. Emphasis is placed upon structure and function of human movement. A comprehensive study of human anatomy with emphasis on the nervous, skeletal, muscle, and circulatory systems is incorporated. Introduction to general anatomy lays the foundation of the course. Dissection and identification of structures in the cadaver supplemented with the study of charts, models, prosecuted materials and radiographs are utilized to identify anatomical landmarks and configurations of the limb and region.

Text Books:

- *Gray's Anatomy* by Prof. Susan Standring 39th Ed., Elsevier.
- *Clinical Anatomy for Medical Students* by Richard S.Snell.
- *Clinically Oriented Anatomy* by Keith Moore.
- *Clinical Anatomy* by R.J. Last, Latest Ed.
- *Cunningham's Manual of Practical Anatomy* by G.J. Romanes, 15th Ed., Vol-I, II and III.
- *The Developing Human. Clinically Oriented Embryology* by Keith L. Moore, 6th Ed.
- *Wheater's Functional Histology* by Young and Heath, Latest Ed.
- *Medical Histology* by Prof. LaiqHussain.
- *Neuroanatomy* by Richard S.Snell.

4.5.2 **Physiology**

Objectives

The course is designed to study the function of the human body at the molecular, cellular, tissue and systems levels, The major underlying themes are: the mechanisms for promoting homeostasis; cellular processes of metabolism, membrane function and cellular signaling; the mechanisms that match supply of nutrients to tissue demands at

different activity levels; the mechanisms that match the rate of excretion of waste products to their rate of production; the mechanisms that defend the body against injury and promote healing.

These topics are addressed by a consideration of nervous and endocrine regulation of the cardiovascular, hematopoietic, pulmonary, renal, gastrointestinal, and musculoskeletal systems, including the control of cellular metabolism. The integrative nature of physiological responses in normal function and disease is stressed throughout. This course provides the foundation for the further course as exercise physiology, pathology, etc

Text Books

- *Textbook of Physiology* by Guyton and Hall, Latest Ed.
- *Review of Medical Physiology* by William F. Ganong, Latest Ed.
- *Physiology* by Berne and Levy, Latest Ed.
- *Human Physiology: The Basis of Medicine* by Gillian Pocock, Christopher D. Richards
- *Physiological Basis of Medical Practice* by John B. West and Taylor, 12th Ed.

4.5.3 KINESIOLOGY

Objectives

This course covers the definition of kinesiology and its importance to physical therapy and identifies the scope of kinesiology studies and their application. It also covers the types of human motions and their planes of motions and its relative axes explain the inter-relationship among kinematic variables, and utilize the knowledge of this inter-relationship to describe and analyze motion.

This course also covers the classification of the joints or muscles and their characteristics distinguishing arthrokinematic movements from osteokinematic movements and explains their relationship and the difference among agonists, antagonists, and synergists integrate the knowledge learned with human motion occurring during daily activities.

It explores the kinetics and kinematics of normal, purposeful human movement. It introduces the basic concepts of kinesiology and Integrates knowledge of human anatomy, physiology, mechanics and biomechanics as it applies to movement of the extremities and spine. It also includes evaluation procedures such as manual muscle testing of the lower limb, Abdomen, pelvis and thorax including spine. Direct patient contact is scheduled

Text Books

- *Practical exercise therapy* by Margaret Hollis
- *Brunnstrom's Clinical Kinesiology*
- *Clinical kinesiology and anatomy* by Lynn S Lippert
- *Joint structure and function: a comprehensive analysis* by: Pamela. K. Levangie and Cynthia. C. Norkin.
- *Muscle function testing* by: Cunningham and Daniel.
- *Human movement explain* by kimjonas and karenbaker
- *The principles of exercise therapy* by: M Dena Gardiner, 4th Edition

4.5.4 Biomechanics and Ergonomics I

Objectives

This course aims to develop appreciation of how mechanical principles can be applied to understand the underlying causes of human movement. It also examines selected anatomical, structural and functional properties of human connective, muscular, and nervous tissues, as well as skeletal structures. Emphasis is placed on the mechanical, neuroregulatory, and muscular events that influence normal and pathological motion

This course will also help to gain an understanding of basic theoretical concepts, principles and techniques of ergonomics as well as an introduction to fundamental ergonomic measurement tools for assessment of physical workload, posture, occupational exposure, and stress.

Text Books

- *Basic biomechanics of musculoskeletal system* By: Nordin& Frankel, 3rd edition.
- *Basic Biomechanics*, By: Susan J. Hall 4th edition.
- Additional study material as assigned by the tutor.
- *Ergonomics for the therapist* by Karen Jacobs 3rd edition mosby and Elsevier publishers

4.5.5 EXERCISE PHYSIOLOGY

Text Book:

- *Exercise Physiology- Theory and Application to Fitness and Performance* by: Scott K. Powers, Edward T. Howley.
- *Exercise physiology, A thematic Approach* By: Tudor Hale, University College Chichester, UK
- *Additional study material as assigned by the tutor*

4.5.6 MEDICAL PHYSICS

Objectives

This course will cover the basic principal of Physics which are applicable in medical equipment used in Physical therapy. Also help to understand the fundamentals of currents, sound waves, Heat & its effects, electromedical radiations and their effects as well as their application in physical therapy.

Text Books

1. *Clayton's Electrotherapy and actinotherapy* by: PM Scott
2. *Medical physics for physical therapists* by: AD Moore
3. Preliminary Electricity for Physiotherapists by B. Savage.
4. Basic Electronics by Grob.
5. Principles of Bio-instrumentation by Richard A. Normann.
6. Hand book of Biomedical Instrumentation by R.S. Khanpur.
7. Basic Radiation Protection Technology by Gollnick

4.5.7 PHARMACOLOGY-I

Objective

This course covers the basic knowledge of pharmacology including administration, physiologic response and adverse effects of drugs under normal and pathologic conditions. Topics focus on the influence of drugs in rehabilitation patient/client management. Drugs used in iontophoresis and phonophoresis will be discussed in detail.

Textbooks:

- Pharmacology in Rehabilitation (3rd Edition)By Charles D. Ciccone
- Pharmacology ,Richard A,Harvey ,2ndEddition ,Lippincott's
- Mutlianthore text book of Pharmacology and Therapeutics ,M.Cheema,Avol 1 and Vol 2

4.5.8 PATHOLOGY & MICROBIOLOGY-I

Objective

Students will develop an understanding of pathology underlying clinical disease states and involving the major organ systems. Epidemiological issues will be presented and discussed. Students will learn to recognize pathology signs and symptoms that are considered “red flags” for serious disease. Students will use problem-solving skills and information about pathology to decide when referral to another health care provider or alternative intervention is indicated. Students will be expected to develop the ability to disseminate pertinent information and findings, and ascertain the appropriate steps to follow.

Text Books

- *Pathology: implications for the Physical therapist* by: Catherine cavallaro Goodman, 3rd edition
- *Basics & advanced Human Pathology*
- *Pathology* by Robbins
- *Introduction to Pathology* by Weight
- *Lecture notes on Pathology* by Thomas and Cotton
- *General Pathology* by Florey

Medical Microbiology and Immunology By: Levinson and Jawetz, 9th Ed., McGraw-Hill.

4.5.9 PHYSICAL AGENT & ELECTROTHERAPY-I

Objective

This course tends to explore fundamental skills in application of electromodalities and knowledge of indications, contraindications and physiological principles needed for appropriate patient care. It includes topics such as electric stimulation, T.E.N.S. Iontophoresis, ultrasound /Phonophoresis, diathermy and electrodiagnostic testing etc.

Text Books:

- *Clayton's Electrotherapy and Actinotherapy*, 10th edition by PM Scott
- *Electrotherapy: Evidence based Practice*, 11th edition by Shelia Kitchen
- *Michelle H Cameron's Physical Agent in Rehabilitation: From research to Practice*
- *Electrotherapy and Electrodiagnosis* by S. Lient
- *Applications of Shortwave Diathermy* by P.M. Scott
- *Practical Electrotherapy* by Savage

4.5.10 THERAPEUTIC EXEDRCISES & TECHNIQUES

Objective

This course presents anatomical and physiological principles to allow students to develop integrated therapeutic exercise interventions. Students have the opportunity to develop an acquired understanding of physiological responses to various types of training and develop skills in prescription, implementation, and modeling of exercise programs. Exercise components of strength, aerobic/anaerobic conditioning, flexibility, balance and stage of healing/rehabilitation are examined. Evidence of appropriate, safe and effective exercise design and proper exercise biomechanics and prescription parameters are addressed with all interventions. Exercise considerations for special populations and across the age span are covered. Concepts are presented in lecture and practiced in the laboratory.

Text Book

- *Therapeutics Exercises and Technique*, By: Carolyn Kisner& Lynn Allen Colby 4th 5th edition.
- *Therapeutics Exercises: Techniques for Intervention* By: WillimD.Banddy

- *Clinical decision making in therapeutic exercise* By: Patricia e. Sullivan & prudence d. Markos, Appleton & Lange Norwalk, Connecticut

4.5.11 COMMUNITY MEDICINE

Objective

This course is designed for the physiotherapists in order to develop strong knowledge background regarding the community health and well being. It also gives knowledge about issues in community health and policies and procedures for their effective management.

Text Book

- Textbooks of Community Medicine, by Prof. H. A. Siddique (2nd Edition).
- Parks text book of preventive & social medicine –K Park

4.5.12 Health Education & teaching Methodology

Objective

The course is organized to introduce the concept of health care and management issues in Health Services.

It will help them in assuming a leadership role in their profession and assume the responsibility of guidance.

It will help them assume wider responsibilities at all levels of health services.

It will help them in improving their performance through better understanding of the total function of the institution.

Text Book

Park's Text Book of Preventive and Social Medicine

4.5.13 ENGLISH

Objective

Enhance language skills and develop critical thinking.

Enable the students to meet their real life communication needs.

Text Book

- a) Grammar
 1. Practical English Grammar by A.J. Thomson and A.V. Martinet. Exercises 1.Third edition.Oxford University Press. 1997. ISBN 0194313492
 2. Practical English Grammar by A.J. Thomson and A.V. Martinet. Exercises 2.Third edition.Oxford University Press. 1997. ISBN 0194313506

- b) Writing
1. Writing. Intermediate by Marie-Christine Boutin, Suzanne Brinand and Françoise Grellet. Oxford Supplementary Skills. Fourth Impression 1993. ISBN 0 19 435405 7 Pages 20-27 and 35-41.
- c) Reading/Comprehension
1. Reading. Upper Intermediate. Brain Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 453402 2.
- d) Speaking

4.5.14 PAKISTAN STUDIES (COMPULSORY)

Objective

- Develop vision of historical perspective, government, politics, contemporary Pakistan, ideological background of Pakistan.
- Study the process of governance, national development, issues arising in the modern age and posing challenges to Pakistan.

Text Book

1. Burki, Shahid Javed. *State & Society in Pakistan*, The Macmillan Press Ltd 1980.
2. Akbar, S. Zaidi. *Issue in Pakistan's Economy*. Karachi: Oxford University Press, 2000.
3. S.M. Burke and Lawrence Ziring. *Pakistan's Foreign policy: An Historical analysis*. Karachi: Oxford University Press, 1993.
4. Mehmood, Safdar. *Pakistan Political Roots & Development*. Lahore, 1994.
5. Wilcox, Wayne. *The Emergence of Bangladesh*, Washington: American Enterprise, Institute of Public Policy Research, 1972.
6. Mehmood, Safdar. *Pakistan Kayyun Toota*, Lahore: Idara-e-Saqafat-e-Islamia, Club Road, nd.
7. Amin, Tahir. *Ethno -National Movement in Pakistan*, Islamabad: Institute of Policy Studies, Islamabad.
8. Ziring, Lawrence. *Enigma of Political Development*. Kent England: Wm Dawson & sons Ltd, 1980.
9. Zahid, Ansar. *History & Culture of Sindh*. Karachi: Royal Book Company, 1980.
10. Afzal, M. Rafique. *Political Parties in Pakistan*, Vol. I, II & III. Islamabad: National Institute of Historical and cultural Research, 1998.
11. Sayeed, Khalid Bin. *The Political System of Pakistan*. Boston: Houghton Mifflin, 1967.
12. Aziz, K.K. *Party, Politics in Pakistan*, Islamabad: National Commission on Historical and Cultural Research, 1976.
13. Muhammad Waseem, *Pakistan Under Martial Law*, Lahore: Vanguard, 1987.
14. Haq, Noor ul. *Making of Pakistan: The Military Perspective*. Islamabad: National Commission on Historical and Cultural Research, 1993.

4.5.15 INTRODUCTION TO STATISTICS

Text Book

1. Walpole, R. E. 1982. "Introduction to Statistics", 3rd Ed., Macmillan Publishing Co., Inc. New York.
2. Muhammad, F. 2005. "Statistical Methods and Data Analysis", KitabMarkaz, Bhawana Bazar Faisalabad.

4.5.16 ISLAMIC STUDIES

Objective

This course is aimed at:

- 1 To provide Basic information about Islamic Studies
- 2 To enhance understanding of the students regarding Islamic Civilization
- 3 To improve Students skill to perform prayers and other worships
- 4 To enhance the skill of the students for understanding of issues related to faith and religious life.

Text Book

- 1) Hameedullah Muhammad, "Emergence of Islam", IRI, Islamabad
- 2) Hameedullah Muhammad, "Muslim Conduct of State"
- 3) Hameedullah Muhammad, "Introduction to Islam"
 - 1) Mulana Muhammad YousafIslahi,"
- 5) Hussain Hamid Hassan, "An Introduction to the Study of Islamic Law" leaf Publication Islamabad, Pakistan.
- 6) Ahmad Hasan, "Principles of Islamic Jurisprudence" Islamic Research Institute, International Islamic University, Islamabad (1993)
- 7) Mir Waliullah, "Muslim Jrisprudence and the Quranic Law of Crimes" Islamic Book Service (1982)
- 8) H.S. Bhatia, "Studies in Islamic Law, Religion and Society" Deep & Deep Publications New Delhi (1989)
- 9) Dr. Muhammad Zia-ul-Haq, "Introduction to Al Sharia Al Islamia"Allama Iqbal Open University, Islamabad (2001)

4.5.17 Introduction to Information and Communication Technologies

Objective

After completing this course, a student will be able to:

- Understand different terms associated with ICT
- Identify various components of a computer system
- Identify the various categories of software and their usage
- Define the basic terms associated with communications and networking
- Understand different terms associated with the Internet and World Wide Web.
- Use various web tools including Web Browsers, E-mail clients and search utilities.

- Easily use Riphahvls
- Use text processing, spreadsheets and presentation tools
- Installation of Windows XP and different software

Text Book

- Introduction to Computers by Peter Norton, 6th International Edition (McGraw HILL)
- Using Information Technology: A Practical Introduction to Computer & Communications by William Sawyer, 6th Edition (McGraw HILL)
- Computers, Communication & information: A user's introduction by Sarah E. Hutchinson, Stacey C. Sawyer
- Fundamentals of Information Technology by Alexis Leon, Mathewsleon Leon press

4.5.18 BIOCHEMISTRY I

Objective

This course provides the knowledge and skills in fundamental organic chemistry and introductory biochemistry that are essential for further studies. It covers basic biochemical, cellular, biological and microbiological processes, basic chemical reactions in the prokaryotic and eukaryotic cells, the structure of biological molecules, introduction to the nutrients i.e. carbohydrates, fats, enzymes, nucleic acids and amino acids. The nutritional biochemistry concludes the course.

Text Book

- *Harper's Biochemistry* by Robert K. Murray, Daryl K. Granner, Peter A. Mayes, Victor W. Rodwell, Latest Ed.
 - *Lippincott's Illustrated Review of Biochemistry* by Pamela C. Champe and Richard A. Harvey, Latest Ed.
 - *Practical Clinical Biochemistry* by Varley.
 - *Textbook of Biochemistry* by Devlin, 5th Ed.
 - *Textbook of Medical Biochemistry* Vol-I and II by M.A. Hashmi.
- Biochemistry* by Stryer, Lubert, Latest Ed

4.5.19 BEHAVIORAL SCIENCES

Objective

This course is designed to increase awareness of psychosocial issues faced by individuals and their significant reference groups at various points on the continuum of health and disability, including factors that influence values about health promotion, wellness, illness and disability. Personal and professional attitudes and values are discussed as they relate to developing therapeutic relationships. Communication skills are emphasized for effective interaction with clients, health-care professionals and others.

Text Book

- *A Handbook of Behavioural Sciences for Medical and Dental Students* By: Mowadat H Rana, Sohail Ali and Mansoor Mustafa, , University of Health Sciences Lahore
- *Medicine in Society ; Behavioural Sciences for Medical Students*, By: Christopher Dowrick, , Arnold Publisher

- *Behavioural Sciences in Clinical Medicine* By: Wolf & Stewart
- *Developmental Psychology for Healthcare Professions* By: Katherine A Billingham

4.5.20 SOCIOLOGY

Text Book

- David, Tucket (ed), 1976, An Introduction to Medical Sociology, Lahore, Tavistock Publication.*
- Horton, Paul B. and Chester L. Hunt, 1984 Sociology, Singapore: Megraw Hill Book Co.*
- Moon, Graham, 1995. Society and Health; An introduction to Social Science for Professionals, London: Routledge.*
- Smelter Heil J. 1993. Sociology, New Delhi, Prentice Hall of India:*

4.5.21 HEALTH & WELLNESS

Objective

This course includes discussion on the theories of health and wellness, including motivational theory, locus of control, public health initiative, and psycho-Social, spiritual and cultural consideration. Health risks, screening, and assessment considering epidemiological principles are emphasized. Risk reduction strategies for primary and secondary prevention, including programs for special populations are covered.

Text Book

A Physical Therapist's Guide to Health, Fitness, and Wellness
By Catherine R Thompson, PhD, MS, PT

4.5.22 MEDICINE-I

Objective

This course intends to familiarize students with medical terminology and abbreviations for efficient and effective chart reviewing and documentation. It also explores select systemic diseases, focusing on epidemiology, pathology, histology, etiology, as well as primary and secondary clinical characteristics and their management. Discusses and integrates subsequent medical and surgical management to formulate appropriate intervention indications, precautions and contraindications.

Text Book

- *Practice of medicine* by: Davidson
- *Clinical medicine* by: Parveen j Kumar & Michael Clark
- *Short text book by medicine* by: M. Inam Danish
- *Hutchison's clinical methods* by: Michael swash. 21st edition

- *Bed side techniques*

4.5.23 SURGERY-I

Objective

This course intends to familiarize students with principles orthopaedic surgery along with familiarization with terminology and abbreviations for efficient and effective chart reviewing and documentation. It also explores various orthopaedic conditions needing surgical attention, focusing on epidemiology, pathology, as well as primary and secondary clinical characteristics and their surgical management. The purpose of this course is to make physiotherapy students aware of various surgical conditions so these can be physically managed effectively both pre as well as postoperatively.

Text Book

- *Short practice of surgery* by Baily and Love's
- *Text Book of Surgery* by IjazAhsan
- *Out line of Fractures*

4.5.24 RADIOLOGY & DIAGNOSTIC IMAGING

Objective

This course covers the study of common diagnostic and therapeutic imaging tests. At the end of the course students will be aware of the indications and implications of commonly used diagnostic imaging tests as they pertain to patient's management. The course will cover that how X-Ray, CT, MRI, Ultrasound and Other Medical Images are created and how they help the health professionals to save lives.

Text Book

Looking Within (How X-ray, CT, MRI, Ultrasound and Other Medical Images Created and How They Help Physicians Save Lives) By Anthony Brinton Wolbarst

- *A-Z of Musculoskeletal and Trauma Radiology* By: James R. D. Murray
- *Essentials of Radiology* by Fred. A. Mettler, 2nd edition.
- *Imaging in rehabilitation*, By: Terry. R. Malone, Charles Hazle & Michael L. Grey. McGraw Hill Publishers.

4.5.25 MUSCULOSKELETAL PHYSICAL THERAPY

Objective

This course includes a study of anatomy and physiology of the musculoskeletal system and pathological changes of the system and function, including diagnostic tests and measurements. Relevant tests and measures for determining impairment and differentiating the diagnosis based on the specificity and sensitivity of the assessment instruments as related to patients with musculoskeletal conditions are discussed. The use of evidence-based physical therapy intervention for musculoskeletal conditions is emphasized. Topics will focus on comparing contemporary and traditional interventions and the impact of evolving technology in this area.

Text Book

- Hertling, D, and Kessler RM. Management of Common Musculoskeletal Disorders: Physical Therapy Principles and Methods. 3rd ed. Philadelphia, PA: WB Saunders 1995
- *Orthopaedic Physical Therapy* By: Donatelli & Michael J. Wooden 4th Edition.
- *Physiotherapy in Orthopaedics, A problem-solving approach* By: Atkinson, Coutts & Hassenkamp 2nd Edition
- *Clinical orthopaedic rehabilitation* By S. Brent. Brotzman & Kevin. E. Wilk, 2nd edition, Mosby publishers.
- *Management of Common Musculoskeletal Disorder* by: Hertling, D, and Kessler RM Physical Therapy Principles and Methods. 3rd ed. Philadelphia. PA: WB Saunders
- *Orthopedic Physical Assessment*. Magee, D. 4th ed. Philadelphia PA: WB Saunders 1995
- *Physical Rehabilitations Assessments and Treatment*". By Susan B, O'Sullivan & Thomas J. Schmitz, 4th edition
- *Tidy's Physiotherapy* by Thomas A Skinner & Piercy
- *Additional reading material as assigned by the tutors.*

4.5.26 Special Education & Community Based Rehabilitation

Objective

This course intends to give the physiotherapy students basic knowledge about various types of disabilities existing in special children. The knowledge ranges from physically handicapped to intellectually disabled children. It also gives information about various existing approaches for the effective rehabilitation and teaching methods .

Text Book

- *Introduction to Special Education* By: Allen and Beacon, (1992), A Simon & Superter Comp. Needham Heights
- *Exceptional Children*, Howard, W.I. (1988); Columbus, Merrill.
- *Exceptional Children and Adults*, Patton, J.R. (1991); Boston Scott Foresmen and Co.
- *Exceptional Children in Focus* by: Patton J.R. (1991); New York, Macmillan pub. Co

4.5.27 NEUROLOGICAL PHYSICAL THERAPY

Objective

This course provides an in-depth exploration of the assessment and intervention procedures used with persons with various neurological pathologies. The focus of this course will be on neurological problems acquired in adulthood. Theories of motor control and motor learning will be studied and applied to assessment and treatment. Laboratories will be used to strengthen evaluation and intervention skills, especially the analysis of movement as well as planning, practicing, and modifying treatment. The format of this course includes lectures, discussions, laboratory experiences, problem-based learning activities, community based experiences, and patient-centred case study learning

activities. There will also be contact with persons with neurological dysfunction as part of this course. Clinical competence in the evaluation and treatment of persons with neurological impairments is to be developed.

Text Book

- Neurological Physiotherapy Bases of evidence for practice *Treatment and management of patients described by specialist clinicians* by Cecily Partridge
- *Neurological Physiotherapy A problem-solving approach* By Susan Edwards, second edition.
- *Neurologic examination* By Robert j. Schwartzman , first edition

4.5.28 EVIDENCE BASED PRACTICE

Objective

This course introduces the concept of evidence-based practice in physical therapy including the formulation of answerable clinical questions, methods of obtaining peer-reviewed evidence to those clinical questions, and how to critically appraise evidence once located. This course is a lecture and seminar course that will focus on developing the skills need for evaluating, critiquing, and consuming the literature germane to physical therapy practice. Current journal articles, texts, and online resources will be used in the course to develop critical reading and writing skills.

Text Book

Practical Evidence based physiotherapy By, Rob Herbert, GroJamtdvedt, Judy Mead&KareBirger Hagen.

Asking the right question-A guide to critical thinking, 8th Edition By, M.Neil.Browne& Stuart M Keeley

Additional reading material as assigned.

4.5.29 PROSTHETIC & ORTHOTIC

Objective

This course intends to study prosthetic and orthotic management as applied to a variety of patient populations across a life span. It also addresses the considerations of various pathologies and medical, surgical management to formulate appropriate patient examinations, evaluation, diagnosis, prognosis and intervention that are consistent with physical therapy practice guidelines. Principles of normal biomechanics, pathomechanics, physiology and Pathophysiology will be a major focus for evaluation, intervention and education of the vascular, neuromuscular, and / or musculoskeletal compromised patient who may utilize prosthetic or orthotic devices. Basic principles of mechanical physics and material characteristics will be applied.

Text Book

- *Prosthetics and Patient Management: A Comprehensive Clinical Approach* By: [Kevin Carroll](#) ; [Joan Edelstein](#)
- *Orthotics a comprehensive clinical approach* By: Joan E Eldestein& Jan Bruckner

4.5.30 CARDIOPULMONARY PHYSICAL THERAPY

Objective

This course includes a study of anatomy and physiology of the cardiovascular, pulmonary, and lymphatic systems and pathological changes of the systems and function, including diagnostic tests and measurements. This course discuss relevant testes and measures for determining impairment and differentiating the diagnosis based on the specificity and sensitivity of the assessment instruments as related to patients with cardiovascular, pulmonary, and lymphatic systems disorders. The use of evidence-based physical therapy intervention for cardiovascular, pulmonary, and lymphatic systems disorders is emphasized. Topics will focus on comparing contemporary and traditional interventions and the impact of evolving technology in this area

Text Book

- *Essentials of Cardiopulmonary Physical Therapy (2nd Edition)* By Hillegass and Sadowsky
- *Physiotherapy for respiratory and cardiac problems*, By: Jennifer A. Pryor & Barbara A. Webber, 2nd edition, Churchill Livingstone.
- *Tidy's Physiotherapy* by Thomas A Skinner & Piercy
- *Therapeutics Exercises and Technique* by Carolyn Kisner&Laynn Allen Colby 4th 5th edition.
- *Cash's Text book of General Medical & Surgical Condition for Physiotherapists* by Patrica A. Downie
- *Cash's Textbook of chest , heart and vascular condition for physiotherapist* by Patrica A. Downie

4.5.31 MANUAL THERAPY

Objective

Through the utilization of instruction, demonstration, practical exercises, research article critical review and case study discussions and presentations this course will provide the best evidence in state of the art advanced manual therapy A detailed overall review of all Manual Therapy techniques, along with advanced manual therapy techniques covering spine and Temporo-Mandibular joint, will take place Techniques covered are: advanced myofascial trigger point therapy, Proprioceptive training, muscle energy combination techniques, strain counter strain, neuromobilization combination techniques and mobilization – manipulation techniques with emphasis on thrust manipulation Thorough evaluation, assessment and technique selection training will take place utilizing evidence based models such as APTAs “Open Door” and “Hooked in Evidence” programs All skills will be introduced through on-site demonstration and hands-on practice Students will also get significant exposure in critical review of research articles pertaining to application of manual therapy techniques Case review, discussion and case presentations are an important component of this course

Text Book

- *Manual Mobilization of the Joints The Kaltenborn Method of Joint Examination and Treatment Volume I The Extremities* By: Freddy M. Kaltenborn collaboration with Olaf Evjenth, Traudi Baldauf Kaltenborn, Dennis Morgan, and Eileen Vollowitz, OPTP Minneapolis, Minnesota, USA.
- *Manual Therapy* By: Ola Grimsby, the Ola Grimsby institute San Diego.
- *Integrative Manual therapy for the upper and lower extremities* By: Sharon weiselfish, North Atlantic books Berkeley, California.
- *Orthopedic manual therapy an evidence-based approach* by: Chad Cook
- *Orthopaedic Manual Therapy Diagnosis Spine and Temporomandibular Joints* By: Aad van der
- *Translatorsic Spinal Manipulation* By: John R. Krauss, Olaf Evjenth, and Doug Creighton John R. Krauss A Lakeview Media L. L.C. Publication
- *Neuromusculoskeletal Examination and Assessment A Handbook for Therapists*
- By: Nicola J Petty, Ann P Moore & G D Maitland, Second Edition Churchill Livingstone
- *Myofascial Manipulation Theory and Clinical Application*, Second Edition By: Robert I. Cantu, Alan J. Grodin an Aspen Publication Aspen Publishers, Inc. Gaithersburg, Maryland 2001
- *Maitland's Vertebral Manipulation* Seventh Edition By: Geoffrey D. Maitland
- *Musculoskeletal manual medicine, diagnosis and treatment* by Jiri Dovark, Vaclav Dovark, Werner Schneider etc
- *Manual therapy, NAGS, SNAGS, MWMS etc* by Brian R Mulligan fifth edition

4.5.32 Clinical Decision Making & Differential Diagnosis

Objective

The course will cover the principles and methods of clinical screening in physical therapy practice. A basic format for musculoskeletal, neuromuscular, Integumentary, and cardiopulmonary screening in physical therapy will be presented, with a focus on differential diagnosis within the scope of physical therapy practice, and incorporation of the role of the physical therapist as it interfaces with the role of the physician. A clarification of red-flags that differentiate a systemic condition from a neuromusculoskeletal condition will be a continuing theme throughout the course. Decision-making skills related to physical therapy will be emphasized through the use of patient case scenarios with a focus on when to treat, and when to refer. Strategies to effectively and appropriately communicate with health care colleagues and patients regarding medical diagnostic information and medical status will be introduced.

Text Book

- Goodman CC, Snyder TEK. *Differential Diagnostics for Physical Therapists: Screening for Referral*. Saint Louis, MO: Saunders: Elsevier; 2006. ISBN: 978-0-7216-0619-4
- APTA. *Guide to Physical Therapy Practice: Revised second edition*. Alexandria, VA: American Physical Therapy Association; 2003. ISBN: 978-1-887759-85-

- Additional readings as assigned by the instructors

4.5.33 RESEARCH DESIGN AND METHODOLOGY

Objective

This course includes discussion on basic quantitative methods and designs, including concepts of reliability and validity, interpretation of inferential statistics related to research designs, co relational statistic & designs, interclass correlation coefficients, and critical appraisal of the literature.

Text Book

- *Essentials of clinical research* By Stephan P. Glasser
- *Rehabilitation Research (Principles and Applications)* 3rd Edition By Elizabeth Domholdt

4.5.34 PROFESSIONAL PRACTICE IN PHYSICAL THERAPY

Objective

The course will discuss the role, responsibility, ethics administration issues and accountability of the physical therapists. The course will also cover the change in the profession to the doctoral level and responsibilities of the professional to the profession, the public and to the health care team. The topic of health care system in Pakistan with comparison with current health system abroad will be discussed too.

Text Book

1-Professionalism in Physical Therapy: History, Practice, & Development, **Lisa L. Dutton, PT, PhD**

4.5.35 INTEGUMENTARY PHYSICAL THERAPY

Objective

This course includes a study of anatomy and physiology of the integumentary system and pathological changes of the system and function, including diagnostic tests and measurements. The use of evidence-based physical therapy intervention for integumentary conditions is emphasized. Topics will focus on comparing contemporary and traditional interventions and the impact of evolving technology in this area.

Text Book

- *Wound Care Essentials, practice principles,*
- *By Sharon Baranoski& Elizabeth A. Ayello*

4.5.36 GYNECOLOGY & OBSTETRICS PHYSICAL THERAPY

Objective

This course intends to provide Introduction to physical therapy practice for evaluation and treatment of pelvic floor dysfunction and an Introduction to physical therapy practice for evaluation and treatment of problems related to pregnancy, osteoporosis, and other disorders specific to women.

Text Book

Physiotherapy in Obstetrics and Gynecology By: Jill Mantle, Jeanette Haslam, Sue Barton, 2nd edition.

4.5.37 PEDIATRIC PHYSICAL THERAPY**Objective**

This course addresses both the medical and rehabilitation management of the pediatric patient. Foundation lectures on normal development and psychological issues provide the students with a model to use when learning about pediatric pathologies, assessments and interventions. This course also involves the examination and treatment of the pediatric population using an interdisciplinary approach. The etiology and clinical features of common diseases/ disorders observed in the pediatric population will be emphasized. Lab: Methods for examination, goal setting, and intervention are emphasized. Students will participate in interdisciplinary case studies and an interdisciplinary evaluation project.

Text Book

- *Physical Therapy for Children* By, Suzann K. Campbell, Robert J. Palisano & Darl W. Vander Linden.
- *Paediatric Rehabilitation Principles and practice (Fourth Edition)* By, Michael A Alexander & Dennis j. Matthews.
- Additional reading material as assigned.

4.5.38 GERIATRIC PHYSICAL THERAPY**Objective**

The course covers normal aging process, physiological and psychological changes and their effects on daily living activities (ADL) and instrumental daily living activities (IADL). Relevant tests and measures for determining impairment and differentiating the diagnosis based on the specificity and sensitivity of the assessment instruments as related to patients with geriatric conditions are discussed. The use of evidence-based physical therapy intervention for geriatric conditions is emphasized. Topics will focus on comparing contemporary and traditional interventions and the impact of evolving technology in this area.

Text Book

- 1-Geriatric Physical Therapy (Hardcover) by [Andrew A. Guccione](#) (Author)
- 2-Fundamentals of Geriatric Medicine

4.5.39 SPORTS PHYSICAL THERAPY:

Objective

The main focus of this course is related to the understanding of the role that physical therapists play in both the industrial continuum and sports physical therapy. Emphasis is placed on acute management of traumatic injuries and/or sudden illness. In addition, injury prevention with an emphasis on the advanced clinical competencies related to the practice of sports physical therapy will also be covered.

Text Book

- *Sports Rehabilitation and Injury Prevention* by: Paul Comfort & Earle Abrahamson, 1st Edition, 2010, Wiley Blackwell Publishers
- *Clinical Sports Medicine* by: Brukner & Khan, 4ed, McGraw-Hill Publishers
- *A guide to sports and injury management* by: Mike Bundy & Andy Leaver, 1st edition, 2010, Churchill Livingstone.

4.5.40 EMERGENCY PROCEDURES

Objective

This course provides the student with all of the skills necessary to take appropriate action in an emergency in any practice setting. Basic life support, advanced cardiac life support, and first aid and emergency preparedness are the content areas of this course. The course is designed to provide knowledge and skill in emergency techniques and in the application of appropriate action necessary to take care of the patient/client.

Text Book

- *Emergency Care in Athletic Training* by: Keith M. Gorse, Robert O. Blanc, Francis Feld, Matthew Radelet, 1st edition, 2010, FA Davis Company
- *Acute care hand book for Physical Therapists* by: Jaime C paz, Michelle P West, 2nd edition, 2002, Butterworth Heinemann

4.5.41 Supervised Clinical Practice

Objective

This course provides the students to achieve problem solving skills in real life practice.

Text Book

Clinical Log Book

4.5.42 Research Project

Objective

This course provides research projects in community to provide problem solving skills and to meet the challenges in the world.

4.6 Standard 2-1

The curriculum must be consistent and support the program's documented objectives.

DPT program is designed with Core areas of theoretical work, lab work, clinical work and research work to meet the requirements for undergraduates to enter the graduate program.

Group 1: Basic Medical Sciences (B.M.S)

Anatomy, Physiology, Biochemistry, Kinesiology, Medical Physics, Electrotherapy,

Group 2: Clinical Specialties

Therapeutics, Musculoskeletal Physical Therapy, Cardiopulmonary Physical Therapy, Neuromuscular Physical Therapy, Manual Therapy, Differential Diagnosis, Integumentary Physical therapy, Obstetrics & Gynecology, Pediatrics Physical Therapy, Medicine, Surgery. Supervised Clinical Practice 6,7,8,9, 10

Group 3 Humanities

Life and Living, Islamic Studies, Pak studies, Sociology

4.6.1 Course Groups and Program Objectives

Courses Groups	Objectives				
	1	2	3	4	5
1	X	X	X	X	
2		X		X	
3	X	X	X	X	X

Table 4: Courses versus Program Objectives

4.7 Standard 2-2

Theoretical backgrounds, problem analysis and decision Making and Planning must be stressed within the program’s core material.

Elements	Courses
Theoretical Background	Theoretical work consisting of Anatomy, Physiology, Kinesiology, Physical Agents and Electro Therapy, Therapeutic Exercise and Techniques, Health and Wellness, Exercise Physiology, Community Medicine, Medicine Surgery, Radiology, Evidence Based Practice, Emergency Procedure.

Problem Analysis	Supervised Clinical Practice and Research Project
Decision Making and Planning	Clinical Decision Making and Differential Diagnosis, Professional Practice (Laws, Ethics and Administration)

Table 5: Standard 2-2 Requirement (table 4.5)

4.8 Standard 2-3

The Curriculum must satisfy the core requirements for the program as specified by the respective accreditation body.

DPT program is under accreditation by the Higher Education Commission.

Minimum Requirements for each program (Program Semester Credit Hours)

Program	Core Subjects	Credit Hours
DPT	64	179

Table 6: Program Credit Hours (appendix A table)

4.9 Standard 2-4

The curriculum must satisfy the major requirements for the program as specified by the respective accreditation body.

Same as Standard 2-3.

4.10 Standard 2-5

The curriculum must satisfy general education, arts and professional and other discipline requirements for the program as specified by the respective accreditation body.

Same as standard 2-3 and Standard 2-1 (table 4.4) as defined above.

4.11 Standard 2-6

Information technology component of the curriculum must be integrated throughout the program

After completing this course, a student will be able to:

- Understand different terms associated with ICT

- Identify various components of a computer system
- Identify the various categories of software and their usage
- Define the basic terms associated with communications and networking
- Understand different terms associated with the Internet and World Wide Web.
- Use various web tools including Web Browsers, E-mail clients and search utilities.
- Use text processing, spreadsheets and presentation tools
- Installation of Windows XP and different softwares

4.12 Standard 2-7

Oral and written communication skills of the student must be developed and applied in the program.

Students go through report writing, research writing and presentation during the course work which develops the oral and written communication skills of the students.

5.0 Criterion 3: Laboratories and Computing Facilities

RIPHAH has established multiple laboratories for students to practice their learning outcomes. Following is the list of available laboratories available to DPT students:

1. Anatomy Lab
2. Kinesiology Lab
3. Physiology Lab
4. Biomechanics Lab
5. Bio-Chemistry Lab
6. Computer Lab-I
7. Computer Lab-II

The details about these laboratories are provided as under:

Computer Labs are located in Computer Science Department and the rest of the Labs are located in RCRS Department.

5.1 Standard 3-1

Laboratory manuals/documentation/instructions for experiments must be available and easily accessible to faculty and students.

Laboratory In-charge is the custodian of all the manuals and instructions concerning his laboratory. These manuals and instructions are issued to desired entity through a defined process and proper record is maintained. The laboratory in-charge keeps the manuals and instructions in laboratory for immediate access to students and faculty members during the laboratory work.

Laboratory equipment and facilities at Riphah College of Rehabilitation Sciences, Faisalabad Campus are equally good and comparable to any high reputed university of the country.

5.2 Standard 3-2

There must be support personal for instruction and maintaining the laboratories.

Each laboratory has two authorized staff members, Laboratory In-Charge and Laboratory Attendant. Laboratory in-charge is responsible for overall maintenance of laboratory and also maintains the manuals and instructions while Laboratory Attendant is responsible to maintain the laboratory equipment and general duties within the lab.

5.3 Standard 3-3

The University computing infrastructure and facilities must be adequate to support program's objectives.

The computer laboratories have the latest computers & equipment. The program objectives are that students shall be equipped with IT skills at the end of the program and facilities (equipment and software) provided in the computer laboratories are adequate enough to achieve defined goals. Computing facilities in RIU, Faisalabad Campus are extremely good and can be compared with any high reputed university of the country.

RIPHAH is running a comprehensive Campus Management System. It facilitates the faculty members in maintaining the attendance record, examination schedules, time tables and student's data.

6.0 Criterion 4: Student Support and Advising

Since the launch of Riphah Faisalabad in year 2013, all its programs have started and finished on schedule. The culture in RIU is that teachers and students have facility of frequent interaction, even after classes, for any professional and academic advice. This aspect is even highlighted and indicated by the students in the feedback on HEC Performa number 10, taken by the Quality Enhancement Cell (QEC) in the university.

6.1 Standard 4-1

Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner.

The required and elective courses are offered in a logical sequence that grooms the students to obtain the program's defined objectives and outcomes.

6.2 Standard 4-2

Courses in the major area of study must be structured to ensure effective interaction between students, faculty and teaching assistants.

Courses are structured in the board of studies before commencement of each semester. Faculty members interact frequently among themselves and with students. Students are encouraged to participate in providing feedback and their views about course contents during and after the classes.

6.3 Standard 4-3

Guidance on how to complete the program must be available to all students and access to qualified advising must be available to make course decisions and career choices.

Students are informed about the program requirements at the start of the session during orientation week by in-charge program and QEC staff. In-Charge Program o maintains a list of guidance points provided to students during the semester and

program, which is being evaluated at the end of the program to take necessary improvement.

In-charge student's affair provides professional counseling to students when needed. Students can get in touch directly with him/her for any advice.

In charge Industrial Liaison arranges industrial tours for students to improve their subject vision and technical know-how. He/ She also invites professionals from different business entities to conduct interactive sessions with students for advice on professional matters/future career planning.

Program coordinator maintains a list of professional societies and technical bodies, that is provided to students on demand and students can get membership of such organizations on individual basis.

7.0 Criterion 5: Process Control

7.1 Standard 5-1

The process by which students are admitted to the program must be based on quantitative and qualitative criteria and clearly documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

The program has a well-defined admission criterion, which include evaluation of student's marks at different levels and admission test results. The admission is done twice a year, in fall and spring semester.

Students who have completed the 12 years of education (relevant degree) are eligible to appear in the admission test of the program. Admission is granted strictly on the basis of academic record, admission test and interview.

Students from accredited universities are eligible to transfer their credits to RCRS, Faisalabad Campus. Students have to submit complete course curriculum and internal evaluation certificate of each subject from his/her previous institution duly signed by head of department/principal. Student's applications in this regard are

dealt on case to case basis. Such applications are discussed in Board of Studies to evaluate them and make decision. Dean of the faculty is the final authority to make decision regarding credit transfers.

This admission criterion is evaluated every 2 years by the board of faculties and academic council in the light of instructions issued by HEC. Minor internal adjustments regarding admission test result weightages or test contents are made.

7.2 Standard 5-2

The process by which students are registered in the program and monitoring of students' progress to ensure timely completion of the program must be documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

The student's name, after completion of the admission process, is forwarded to the Registrar office for registration in the specific program and the registration number is issued.

Students are evaluated through assignments, sessional, mid-term tests and final examinations at the end of each semester. The laboratory work is done on regular basis as per schedule and contributes significantly towards the student's evaluation for relevant course. Only qualified students in each semester are allowed to join the next semester.

7.3 Standard 5-3

The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation, promotion must be consistent with institution mission statement. These processes must be periodically evaluated to ensure that it is meeting with its objectives.

Vacant and newly created positions are advertised in the national newspapers, applications are received by the Registrar office, scrutinized by the respective Deans, and call letters are issued to the short-listed candidates on the basis of

experience, qualification, publications and other qualities/activities as determined by the University in the light of HEC guidelines.

The candidates are interviewed by the University Selection Board. Selection of candidates is approved by the BOG. Induction of new candidates depends upon the number of approved vacancies. HEC also helps RIU in enrolling the foreign faculty.

Faculty members are retained by giving them good remuneration, favorable teaching environment, research facilities and management support.

On yearly basis faculty performance is evaluated basing on HEC Performa number 10 by the students, Deans recommendations and with the counter signature of vice chancellor and pro chancellor. The annual increment is based on the recommendations of the Dean and the vice chancellor.

7.4 Standard 5-4

The process and procedures used to ensure that teaching and delivery of course material to the students emphasizes active learning and that course learning outcomes are met. The process must be periodically evaluated to ensure that it is meeting its objectives.

Students are the recipient of the delivery of course material, through their teachers. The program is actively evaluated by Dean, In Charge program and QEC. The feedback of the taught is best instrument to measure that the course learning outcomes are met. The students give feedback on Performa number 1 regarding course contents and how it was delivered. Through Performa number 10, students evaluate and comment on teacher's efforts, put in to deliver the course contents, his general conduct in the class, the environment, he, maintains and extra efforts, he makes to satisfy students, thirst for knowledge.

Faculty feedback is also taken on HEC Prforma number 2 (Faculty Course Review Report) and Performa number 5 (Faculty Survey) which is a very useful activity to

evaluate the course contents, learning and teaching environments and overall teachers satisfaction level. Course evaluation by teachers also indicates what percentage of desired outcome has been achieved by the course contents and what needs to be improved or changed.

This exercise is done once a year. The feedback is discussed with Dean and In charge program, who focus on making improvements in the weak areas, identified by the students. Teacher's evaluation performs are fed to the computer and bar charts are made. Each teacher is graded out of 5 marks. The comparative bar charts indicate level of performance of teachers, as visualized by the students. QEC formally submits these bar charts to Dean and Vice Chancellor for their information and taking of necessary corrective actions.

7.5 Standard 5-5

The process that ensures that graduates have completed the requirements of the program must be based on standards, effective and clearly documented procedures. This process must be periodically evaluated to ensure that it is meeting its objectives.

The program is run on semester basis and at the end of each semester examinations are held to evaluate the student's progress in that semester. Qualified students are allowed to join next semester and this cycle continues till the end of 10th semester which is the final semester. At the end of 10th semester all students are required to submit their respective House Job Report. Student's final results are announced on the basis of House Job Report and examination results.

Requirements of this standard are met through 3 Performa issued by HEC. The feedback is documented and its evaluation indicates degree of satisfaction of the graduates. Three forms (Performa 3, Survey of Graduating Students, Performs 7, Alumni Survey and Performa 8, Employer Survey) are extremely good instruments to measure the program outcomes.

The feedback is taken on yearly basis. The suggestions given by the graduating students and graduates working in the industry are given due weightage.

8.0 Criterion 6: Faculty

8.1 Standard 6-1

There must be enough full time faculties who are committed to the program to provide adequate coverage of the program areas/courses with continuity and stability. The interests and qualifications of all faculty members must be sufficient to teach all courses, plan, modify and update courses and curricula. All faculty members must have a level of competence that would normally be obtained through graduate work in the discipline. The majority of the faculty must hold a Ph.D. in the discipline.

Program Area of Specialization	Courses in the area and average number of sections per year	Number of faculty members in each area	Number of faculty with Ph.D Degree
Physiology	Physiology-III(Boys section) Health and Wellness (Boys section)	2	
Pathology and Microbiology	Pathology and Microbiology-I(Boys and girls sections)	1	
Anatomy) Therapeutic Exercise and Techniques	Anatomy-III (Boys and girls sections) Therapeutic Exercise and Techniques-I(Boys and girls	1	
Electrotherapy and Physical Agents	Electrotherapy and Physical Agents (Boys and girls sections)	1	
Biomechanics and Ergonomics	Biomechanics and Ergonomics-I(Boys and girls sections) Supervised Clinical Practice-I(Boys and girls sections)	2	

Pharmacology and Biochemistry	Pharmacology-I(Boys and girls sections) Biochemistry-I(Boys and girls sections)	1	
Sociology	Sociology (Boys and girls sections)	1	
Total		09	

Table 11: Faculty Distribution by Program Area (table 4.6)

8.2 Standard 6-2

All faculty members must remain current in the discipline and sufficient time must be provided for scholarly activities and professional development. Also, effective programs for faculty development must be in place. Effective Programs for Faculty Development

Faculty concurrency in the discipline is determined based on the criterion set by the University in the light of HEC guidelines. All faculty members submit their professional resumes on HEC Performa number 9 (Faculty Resume) once a year. This information is compared with the existing criterion set by university for the concurrency of the post.

All full time faculty members are allocated teaching hours as per HEC defined limit which enables the faculty to have enough spare time to perform scholarly activities and improve their knowledge and skills.

Faculty members are provided with adequate resources for research and academic activities. Every faculty members has been provided with computer system and access to internet. Faculty members have also access to library materials for academic and research activities. Professional training is also provided to faculty if required to enhance their capabilities.

University has defined the development programs for faculty members under the arrangement of RARE (Riphah Academy of Research and Education). RARE holds

frequent interactive sessions of junior and senior faculty to discuss teaching methodology with a view to train the young faculty members. This practice is done on yearly basis during the summer vacations. After every 2 year the development program is analyzed in Deans Council for its effectiveness and necessary improvements.

The university encourages the faculty to participate in research activities by providing them sufficient financial support within or outside university.

8.3 Standard 6-3

All faculty members should be motivated and have job satisfaction to excel in their profession.

Faculty members are motivated through public appreciation and documented appreciation (annual performance evaluation report) by the In-Charge Program and Dean on regular basis.

The faculty survey of the program using HEC Proforma number 5 indicates the mix reactions of the faculty, which indicates that teaching load be distributed evenly and more relaxed environment be generated. Cumulative results of faculty surveys are attached in Annexure G.

9.0 Criterion 7: Institutional Facilities

9.1 Standard 7-1

The institution must have the infrastructure to support new trends in learning such as e-learning.

The university has provided E-learning facilities to faculty members and students. Each faculty member has a computer system with access to internet and e-learning library section.

Students have been provided a number of computer systems in the library to access e-learning section. Every student has been provided with user ID to access the e-

learning resources from within the university library. The university library is linked with foreign universities libraries through internet.

The support staff to look after the e-learning resources is sufficient in number, trained and responsive. The university has provided enough funding to support the e-learning.

9.2 Standard 7-2

The library must possess an up-to-date technical collection relevant to the program and must be adequately staffed with professional personnel.

The university library has enough technical books in hard copies to support the program learning. The internet access to the external universities libraries provides opportunities to the students and faculty to obtain knowledge from their technical resources.

The library is staffed with more than 6 professionals to help students and faculty members to get access to required book or learning material efficiently.

9.3 Standard 7-3

Class-rooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities.

Enough class rooms are available to run the program as per desired schedule. In few class rooms, there is a need of up-gradation of multimedia and other resources. The work orders have been initiated and procurement process is in progress.

10.0 Criterion 8: Institutional Support

10.1 Standard 8-1

There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to maintain competence as teachers and scholars.

University allocates enough financial resources each year to hire competent faculty as required.

As already listed in standard 5-3, Faculty members are retained by giving them good remuneration, favorable teaching environment, research facilities and management support.

As listed in standard 6-2, Faculty members are provided with adequate resources for research and academic activities to maintain their competence. Every faculty members has been provided with computer system and access to internet. Faculty members have also access to library materials for academic and research activities. Professional training is also provided to faculty if required to enhance their capabilities.

10.2 Standard 8-2

There must be an adequate number of high quality graduate students, research assistants and Ph.D. students.

The DPT Program has no graduates yet.

10.3 Standard 8-3

Financial resources must be provided to acquire and maintain Library holdings, laboratories and computing facilities.

Library at Riphah Faisalabad Campus holds more than 7000 books for all programs. Sufficient number of computers is available to be used by the students. Library is organized to accommodate 50 students (male, female) in research cubicles as well as in the common places. Separate common rooms for male and female students are available with internet facility.

Laboratories at Riphah holds adequate equipment to be used by the students to carry out desired experiments and laboratory work. Each year a handful of budget is allocated for laboratories to maintain and upgrade the equipment and other facilities.

Computing facilities at Riphah provide excellent platform to students to enhance their learning capabilities. There are 2 Computer Laboratories in Faculty of Computing, which are accessible to all students for their use.

11.0 Conclusion

The Self-Assessment report of the Riphah College of Rehabilitation Sciences, Faisalabad Campus is an important document, which gives strengths and weaknesses of the program. The management is striving hard to improve infrastructure for establishment of an environment conducive for studies. The faculty is focused on imparting quality education, introduction of new and innovative techniques and conduct of quality research to produce competent engineers. The report has been prepared after evaluating the program in the light of 8 criterion and 31 standards given in HEC's Self-Assessment Manual. The program mission objectives and outcomes are assessed and strategic plans are presented to achieve the goal, which are again measurable through definite standards. Teachers' evaluation revealed satisfactory standards. Weaknesses are identified which is lack of Clinical Rehabilitation Set up. Improvements in curriculum design and infrastructure are suggested which are based upon set, well defined and approved criteria. Examinations are held on schedules, academic schemes are prepared well in advance, transparent admission, registration and recruiting policy, excellent student teacher ratio are some of the strong areas of this program. The number of courses along with titles and credit hours for each semester, course contents for degree program, is thoroughly planned. Their efficacy was measured through different standards and it was found to be satisfactory.

The facilities and shortcomings in the laboratory have been discussed. It was concluded that laboratory facilities and class rooms need further improvement. The need of refresher courses for the fresh faculty on method of teaching cannot be over emphasized.

Proper steps are taken to guide the students for program requirements, communication, meetings, tutorial system, tours, students-teacher interaction etc. Some improvements have been suggested. As regards the process control covering admission, registration, recruiting policy, courses and delivery of material, academic requirements, performance and grading, university, as well as

Higher Education Commission have set forth proper rules, which are properly followed. At present there are 08 faculty members who are highly qualified in their fields. However, faculty members need motivation for advanced knowledge, research and external training.

Institutional facilities were measured through Criterion 3; infrastructure, library, class room and faculty offices and in each case, short comings and limitation are highlighted. Institutional facilities need to be strengthened. Accordingly, institutional support will greatly promote and strengthen academic, research, management and leadership capabilities.

In conclusion, the strong and weak areas of the program are as under:-

11.1 Strong Areas

- g. Highly qualified and experienced faculty
- h. The curriculum has rich and logically arranged courses to prepare the students to be competent in research and professionally.
- i. Research oriented environment
- j. Attractive scholarship
- k. Up-to date Labs
- l. Attachment with Community Hospitals

11.2 Weak Points:

- a. Lack of IT lab in terms of space and infrastructure
- b. Lack of Clinical Rehab Set-up

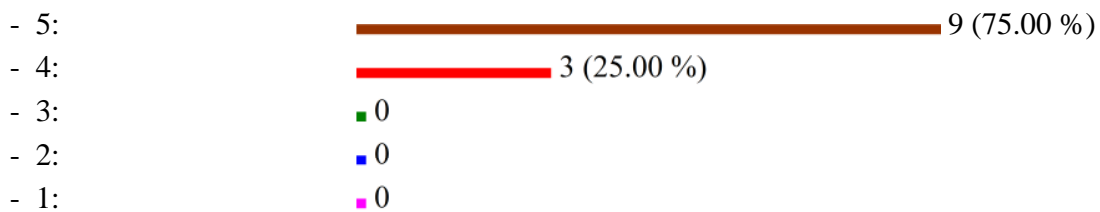
Annexure – A: Employer Survey
 NOT APPLICABLE

Annexure – B: Alumni Survey
 NOT APPLICABLE

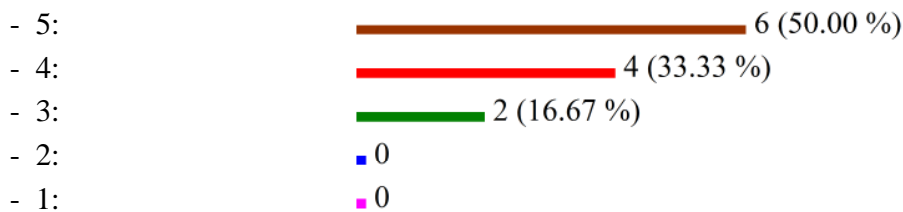
Annexure – C: Course Evaluation Survey

Course Anatomy

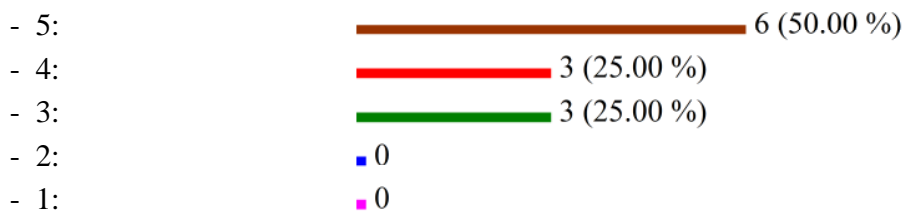
1) The course objectives were clear.



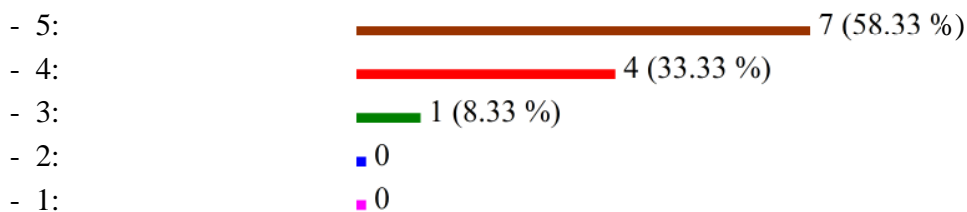
2. (2) The course workload was manageable



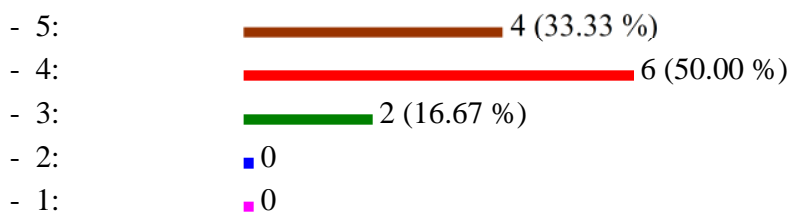
3. (3) The length of the course was appropriate



4. (4) Teaching methods encouraged participation

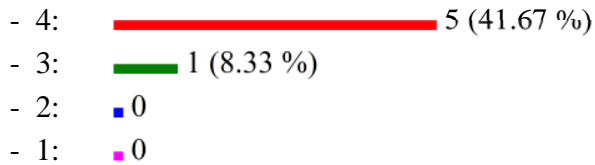


5. (5) The Teacher strictly follows the goals and objectives of the course.

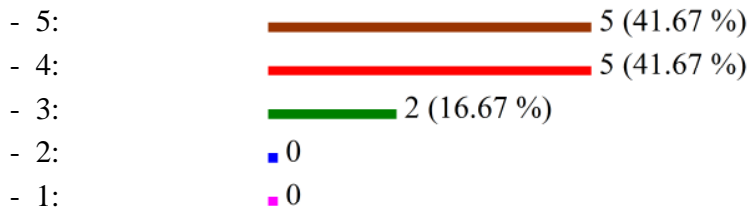


6. (6) Learning materials (lesson plans, Course notes etc) were relevant and useful.

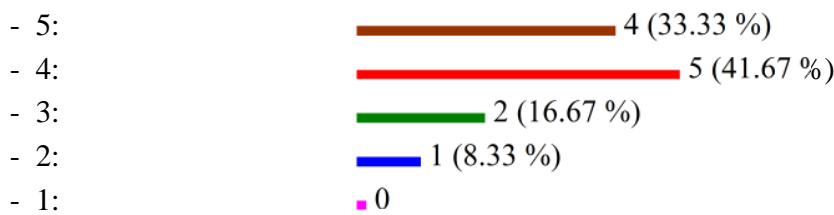




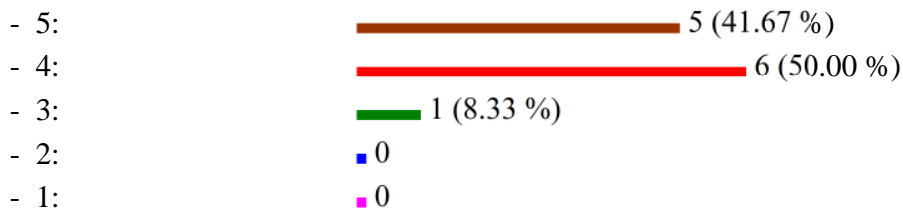
7. (7) Recommended reading books etc were relevant and appropriate



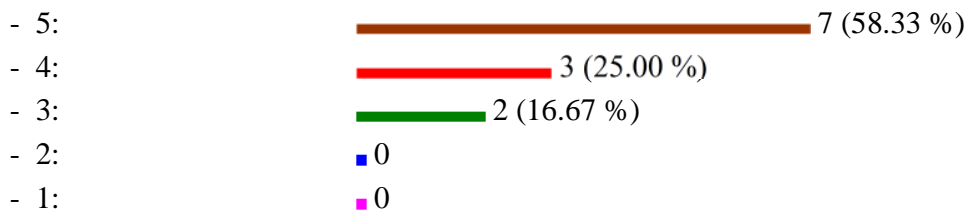
8. (8) I understood all the lectures



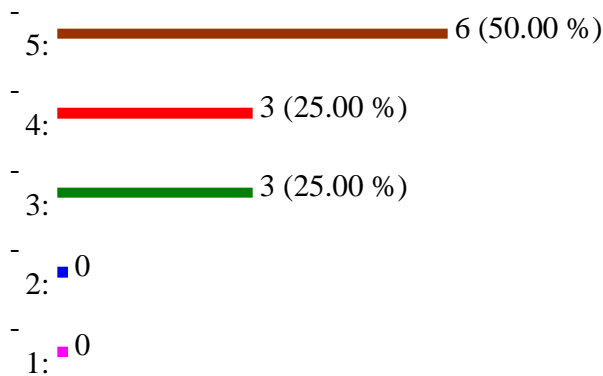
9. (9) The pace of the course was appropriate



10. (10) The methods of assessments were fair

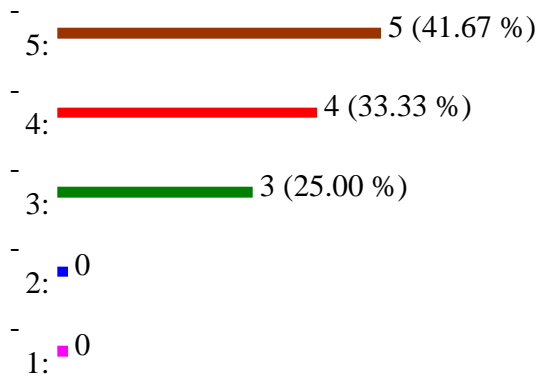


11. (11) As a result of taking this course my interest and curiosity about the issues and questions in this subject area has grown

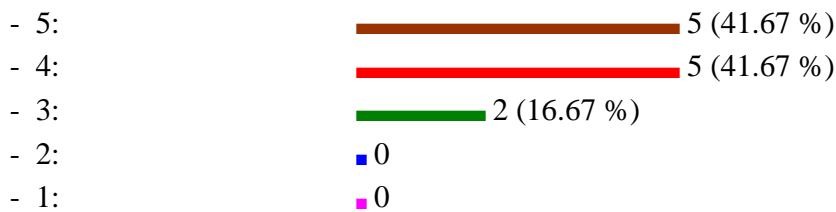


12. (12) As a result of taking this course my thinking is more focused and systematic,

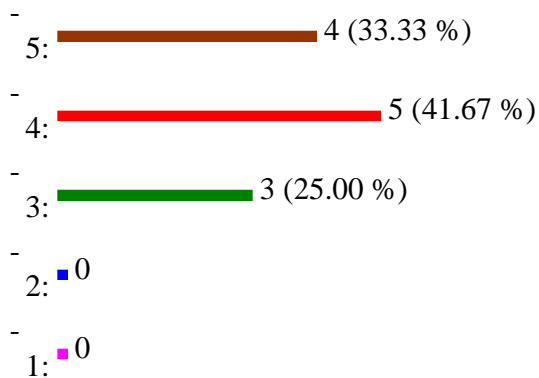
at least in this subject area.



13. (13) The material in the practical was useful (if applicable)



14. (14) In this course, I improved my ability to give sound reasons regarding issues in this subject area








Annexure D: Students Teacher Evaluation

Teacher: Dr. Mahat Zafar



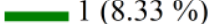


Undertaking) I confirm that evaluation being done by me is all correct

- Yes:  12 (100.00 %)
- No:  0






2. (1) The Teacher starts and finishes class on time

- 5:  7 (58.33 %)
- 4:  3 (25.00 %)
- 3:  2 (16.67 %)
- 2:  0
- 1:  0



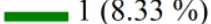


3. (2) The Teacher comes duly prepared for the lecture in each class

- 5:  6 (50.00 %)
- 4:  5 (41.67 %)
- 3:  1 (8.33 %)
- 2:  0
- 1:  0






4. (3) The Teacher utilizes full time of class focusing on the subject matter

- 5:  6 (50.00 %)
- 4:  3 (25.00 %)
- 3:  3 (25.00 %)
- 2:  0
- 1:  0

5. (4) The Teacher demonstrates knowledge of the subject

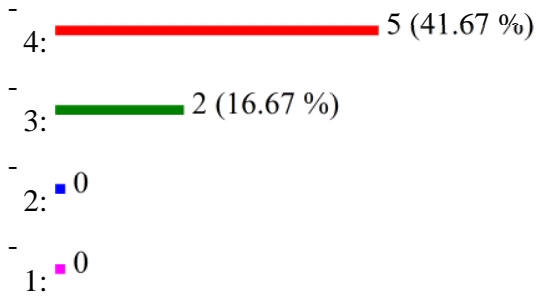
- 5:  6 (50.00 %)
- 4:  5 (41.67 %)
- 3:  1 (8.33 %)
- 2:  0
- 1:  0

6. (5) The Teacher has covered the whole course

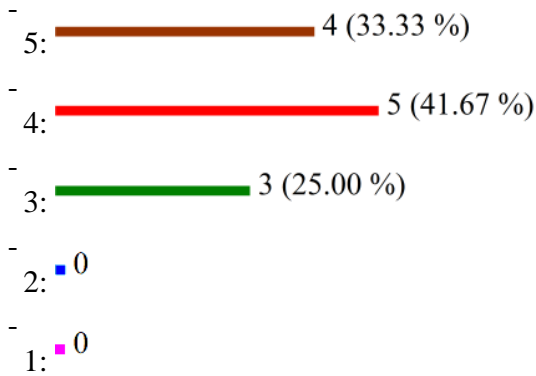
- 5:  4 (33.33 %)
- 4:  6 (50.00 %)
- 3:  2 (16.67 %)
- 2:  0
- 1:  0

7. (6) The Teacher is available for after class consultations during the specified office hours.

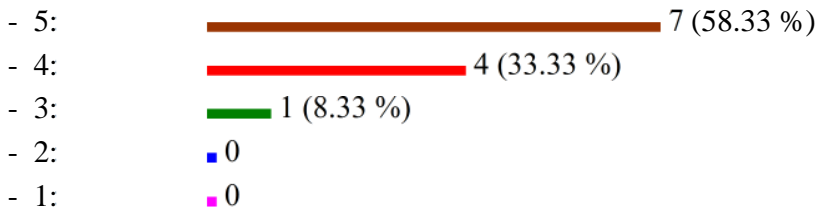
- 5:  5 (41.67 %)



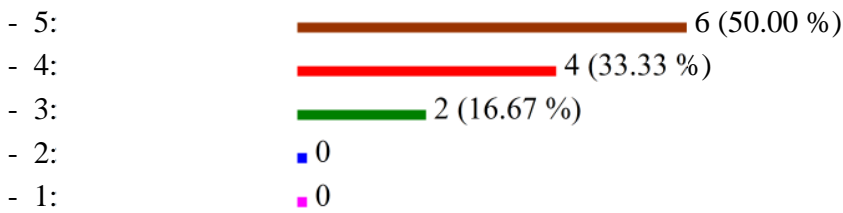
8. (7) The Teacher provides additional material/books/internet references apart from the text book



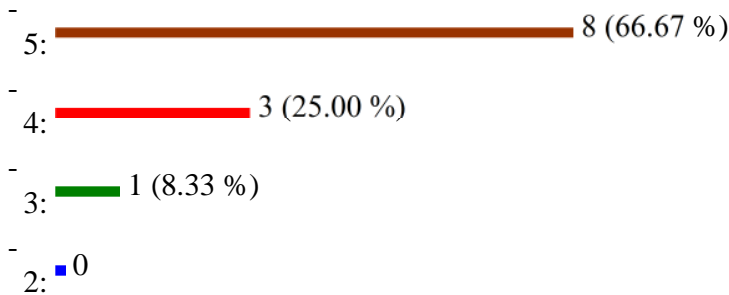
9. (8) The Teacher communicates the subject matter clearly and effectively



10. (9) The Teacher maintains a conducive environment in the class

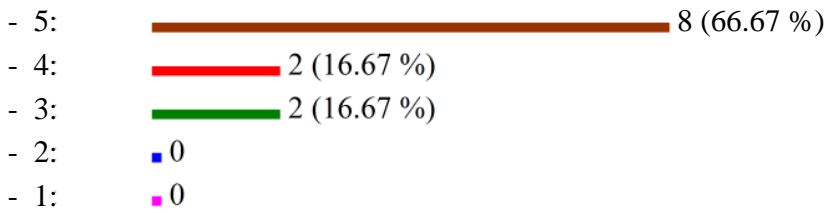


11. (10) The Teacher shows respect towards students and encourages class participation

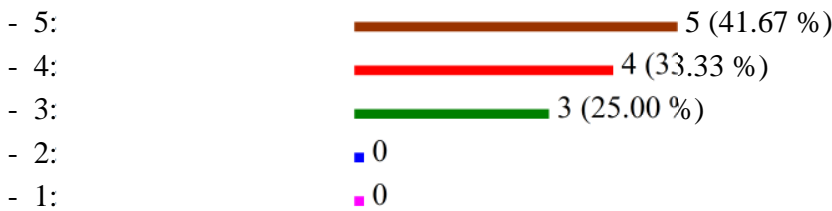


- 1: 0

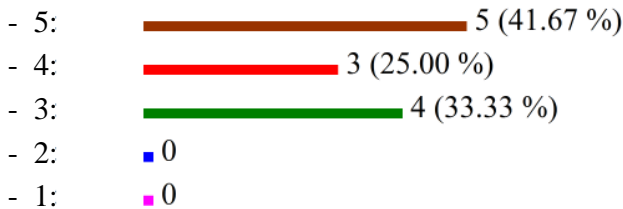
12. (11) The Teacher ensures equitable participation of the students in the class



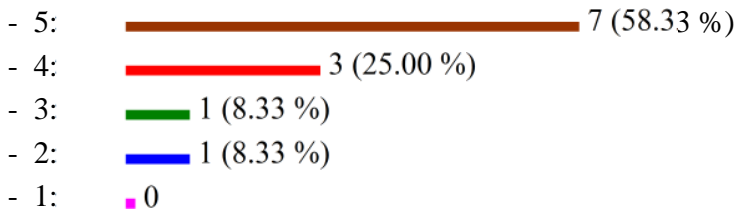
13. (12) The Teacher is fair in exams and grading



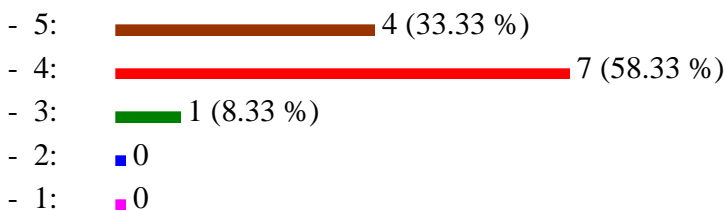
14. (13) The Teacher checks and returns assignments/exams and scripts, in time



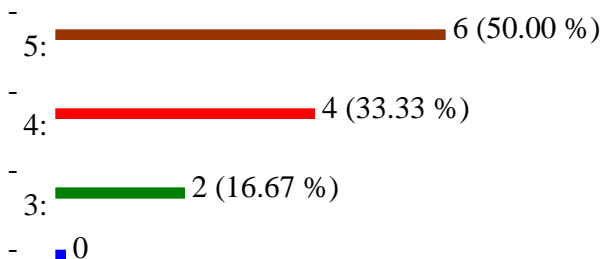
15. (14) The Teacher relates current lesson content to previous and future lessons



16. (15) The teacher takes extra steps to elevate competency level of weak students



17. (16) The Teacher accepts and incorporates student's ideas, questions and responses.



2:

1: 0

18. (17) The Teacher make use of audio/visual aids to make the lectures interesting

- 5: 6 (50.00 %)

- 4: 3 (25.00 %)

- 3: 3 (25.00 %)

- 2: 0

- 1: 0

19. (18) The Teacher uses easy and understandable vocabulary for students

- 5: 7 (58.33 %)

- 4: 3 (25.00 %)

- 3: 2 (16.67 %)

- 2: 0

- 1: 0

20. (19) During the teaching, the teacher display the enthusiasm towards the subject and teaching -motivation to subject interest

- 5: 7 (58.33 %)

- 4: 3 (25.00 %)

- 3: 1 (8.33 %)

- 2: 1 (8.33 %)

1: 0

21. (20) The teacher is using VLE/Moelim for academic activities (assignments/quizes/notes)

- 5: 7 (58.33 %)

- 4: 4 (33.33 %)

- 3: 1 (8.33 %)

- 2: 0

1: 0

Annexure – E:

Research Papers List

Research Publication Detail

Faculty member	Year	Title of Publication	Journal	APA reference
Dr. Muhammad Kashif	2013	“A Multidisciplinary Approach To Disability Rehabilitation: The Case Of A Person With Disability”	European Journal for Person Centered Health Care	Vol.24, No.3;doi 10.5463/DCID.v 24i3.228
Dr. Muhammad Kashif	2015	“Prevalence Of Cervical Pain And Its Contributing Factors In Bank Officers”	International Journal of Medical and Allied Health Sciences (IJMAHS)	Vol.6 Issue 1 E-ISSN: 2348-3229
Dr. Muhammad Kashif	2016	“Entrepreneurial Aptitude Among The University Students Of MBBS, BDS And DPT”	Indian Journal of Physiotherapy and Occupational Therapy	Vol.10 No.1 Pg.66-70
Dr. Muhammad Kashif	2015	“Prevalence Of Neck Pain And Adopted Posture In Drivers”	Annals of Allied Health Sciences Khyber Medical University	Vol.1 No. 1 January- March 2015 pp.37-41
Dr. Muhammad Kashif/ Dr. Humaira Iram/ Dr. Nosheen Manzoor	2016	“Prevalence Of Low Back, Neck And Shoulder Pain And Associated Factors Among Senior Semester Female Students Of The University Of Faisalabad”	International Journal of Rehabilitation Sciences	
Dr. Muhammad Kashif	2013	The Role of Resource Information Centres in the Community Based Rehabilitation Framework.	Journal of Pharmacy and Alternative Medicine	Vol.24, no.3,pp.131-138ISSN:22115 242
Dr. Muhammad Kashif	2014	Trends Of Physiotherapy Services, Staffing And Modalities At Physiotherapy Centers Of Faisalabad	ANNALS OF KING EDWARD UNIVERSITY	Annals vol.20,Issue 3,
Dr. Muhammad Kashif	2014	Prevalence of LBP in male factory workers of Nishat Mills	Journal of Pharmacy and Alternative Medicine	ISSN 2222-5668(paper) ISSN 2222-4807(Online) Vol.3, No.3

Dr. Muhammad Kashif	2014	Prevalence of musculoskeletal disorder and work related associated factors among nurses of Allied and D.H.Q hospital, Faisalabad, Pakistan	Journal of Pharmacy and Alternative Medicine	ISSN 2222-5668(paper) ISSN 2222-4807(Online) Vol.3, No.3
Dr. Humaira Iram	2015	“Opinion Of Pakistani Physiotherapists/ Students About Anatomy And Methods Of Teaching Anatomy”	Journal of Pakistan Medical Association (JPMA)	
Dr. Humaira Iram	2014	“Effectiveness of Non-Invasive Intervention in Controlling Drooling”	Journal of Riphah College of Rehabilitation Sciences (JRCRS)	2(1):3-7
Dr. Humaira Iram	2014	“Frequency of Backache in Osteoporotic Women and Their Related Factors”	Journal of Riphah College of Rehabilitation Sciences (JRCRS)	

Annexure – F:

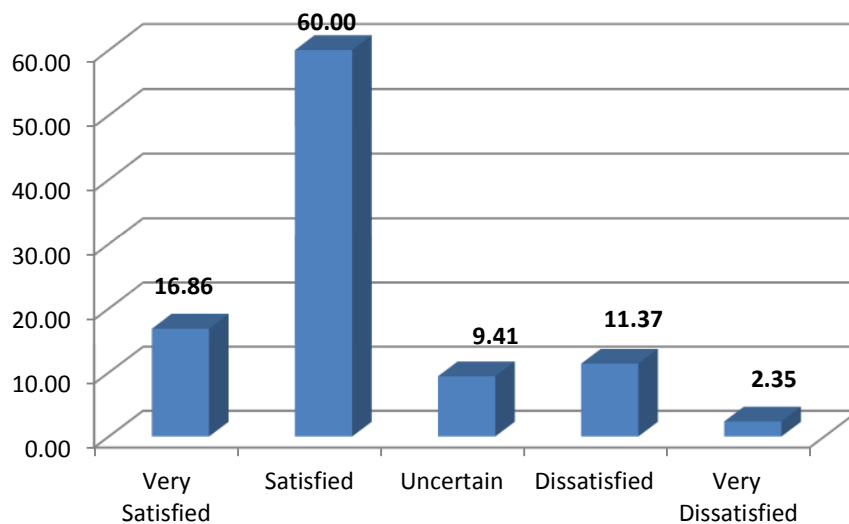
Graduating Students Feedback Sample

Not Applicable

Annexure – G:

Faculty Survey

No.		Questions	Percentage				
			Very Satisfied	Satisfied	Uncertain	Dissatisfied	Very Dissatisfied
1	-	Clarity of institution's goals/mission	33.33	66.67	0.00	0.00	0.00
2	-	Communications from/with peers and faculty/departmental leadership	13.33	66.67	20.00	0.00	0.00
3	-	Type of teaching/ research you currently do..	26.67	66.67	0.00	6.67	0.00
4	-	Your interaction with students in and outside classroom	53.33	46.67	0.00	0.00	0.00
5	-	Your satisfaction level regarding office and IT facilities available to you.	13.33	33.33	26.67	13.33	13.33
6	-	The mentoring available to you from seniors	6.67	80.00	13.33	0.00	0.00
7	-	Administrative support from the faculty/department.	6.67	73.33	0.00	20.00	0.00
8	-	Clarity and Satisfaction about the faculty promotion process.	6.67	53.33	0.00	26.67	13.33
9	-	Your prospects for advancement and progress through ranks.	13.33	46.67	13.33	26.67	0.00
10	-	Salary and compensation package.	6.67	20.00	26.67	33.33	13.33
11	-	Job security and stability at the faculty/department/university.	6.67	80.00	13.33	0.00	0.00
12	-	Amount of time you have for yourself and family.	6.67	53.33	6.67	33.33	0.00
13	-	The overall environment in the department.	26.67	60.00	6.67	6.67	0.00
14	-	Adequacy of technological & multimedia instructional resources in classrooms	33.33	60.00	0.00	6.67	0.00
15		Whether the department is utilizing your experience and knowledge.	13.33	73.33	6.67	6.67	0.00
16		Recognition/appreciation of good teaching by seniors	0.00	80.00	13.33	6.67	0.00
17		Opportunities for research in your discipline and recognition of research accomplishment	20.00	60.00	13.33	6.67	0.00
			16.86	60.00	9.41	11.37	2.35



Annexure – H:**Faculty Resume**

Sr. #	Name	Designation	Qualification	Institution
1.	Dr. Muhammad Kashif	Principal/ Assistant Professor	MS- OMPT*(RIU) MSPT (UK) BSPT (PAK)	Anglia Ruskin University UK
2.	Dr. Asif Ali Butt	Assistant Professor	Ph.D. Clinical Medicine and Surgery (UAF)	University of Agriculture Faisalabad
3.	Dr. Humaira Iram	Senior Lecturer	M.Phil. Physical Therapy (PAK) BSPT (PAK)	KEMU
4.	Dr. Nosheen Manzoor	Lecturer	Post Professional- Doctor of Physical Therapy (RIU) BSPT (PAK)	RIU Lahore Campus
5.	Dr. Bushra Haroon	Lecturer	Transitional- Doctor of Physical Therapy (USA) BSPT (PAK)	Dominican College NY USA
6.	Dr. Hafiza Khansa Shabbir	Lecturer	M.Phil. Pharmacology	University of Agriculture Faisalabad
7.	Dr. Mahat Zafar	Demonstrator	Doctor of Physical Therapy (DPT)	The University of Faisalabad

Annexure – I: Lab Safety Precautions & Work Instructions

Laboratory Staff

- Be calm and relaxed, while working in Lab.
- No loose wires or metal pieces should be lying on table or near the circuit, to cause shorts and sparking.
- Avoid using long wires, that may get in way while making adjustments or changing leads.
- Keep high voltage parts and connections out of the way from accidental touching and from any contacts to test equipment or any parts, connected to other voltage levels.
- BE AWARE of bracelets, rings, metal watch bands, and loose necklace (if you are wearing any of them), they conduct electricity and can cause burns. Do not wear them near an energized circuit.
- Do not install any software on any computer without getting approval from the respective authorities.
- Make sure all the computers and other equipment in the labs are switched off at the end of the day.
- Do not unplug a computer or equipment without switching it off first.

Students

- Shut down the computers properly after finishing your work.
- Do not install any software on any computer. If you are unable to find any required software, please contact the IT staff for help and support.
- Do not switch off network printers and scanners.
- Do not damage any equipment in the lab.
- Be considerate to other students while working in the labs.

AT Findings Panel - Assessment Team

Following Assessment Team Members Visited FSSH on 10 March, 2017

- | | |
|------------------------|-------------|
| • Dr. Zulfiqar Ali | Chairman AT |
| • Dr. Ijaz Ali Shoukat | Member |
| • Ms. Noshaba Anjum | Member |

Exit Meeting - 11 March, 2017

Following attended the meeting:-

- | | |
|--------------------------|-------------|
| • Prof. Dr. M. Mudassar | Chairman |
| • Dr. Muhammad Kashif | HOD DPT |
| • Dr. Zulfiqar Ali | Chairman AT |
| • Dr. Ijaz Ali Shoukat | Member |
| • Ms. Noshaba Anjum | Member |
| • Mr. Shabeeb Ahmad Gill | QEC Officer |

The Chairman AT presented his final recommendations to carry out the improvements in this program. The Respected Chairman approved the proceedings:

- Need to increase the sitting capacity of IT lab.
- Need to enhance clinical rehab set-up.
- Need to Clean &Cool water for the Student &Teacher.

Note: After the above exit meeting, the Departmental head prepared the implementation plan with target dates and submitted it to the QEC. The QEC pursued the activities and then mentioned the final status completed/in progress in Annex-K before submitting the SAR to HEC

Annexure – K

Implementation Plan (Summary) – FSSH (DPT) – Faisalabad Campus

AT Finding	Corrective Action	Implementation Date	Responsibility	Present Status
Need to increase the sitting capacity of IT lab.	IT lab may be shifted from room # 33 to room # 36 which is comparatively bigger.	21 st March, 2017	Procurement officer	Completed
Need to enhance clinical rehab set-up.	Capacity to clinical rehab improved, now up to 50 patients might be accommodated.	28 th April, 2017	Procurement officer	Completed
Need to Clean & Cool water for the Student & Teacher	One Dispenser has been Provided	26 th April 2017	Procurement officer	Completed
Chairman AT Name and Signature	Dr. Zulfiger Ali <i>[Signature]</i>			
Dean's Comments Name and Signature	Amir Haq <i>[Signature]</i>			
QEC Comments Name and Signature	AT Findings have been implemented. SUBRECA AHMAD QILL <i>[Signature]</i>			

Assistant Manager
Quality Enhancement Cell
Riphah International University
Faisalabad

Annexure – L: Faculty Course Review Report

DPT is comprised of 179 credit hours with 64 core subjects. All courses curriculum is reviewed periodically by the faculty to assess its effectiveness and contribution in achieving program objectives. Course review also contributes towards making any changes in the syllabi and enhancements required in areas identified as a result of Alumni Survey, Employer Survey and Graduating Students Feedback.

PT members launched HEC Performa 2 (Faculty of Course Review Report) to all the faculty members, to obtain their feedback about courses.

The summary of the overall feedback of all courses identified the following improvement areas:

- a. Exposure to Physical Therapy Sector
- b. Leadership Skills.
- c. Research Aptitude Building.
- d. Confidence Building Measures

These improvement areas have been presented in Board of Studies to finalize its recommendations and suggest further actions.

Annexure – M: Rubric Report

Self Assessment Report					
Criterion 1 – Program Mission, Objectives and Outcomes					Weight = 0.05
Factors	Score				
1. Does the program have document measurable objectives that support faculty/ college and institution mission statements?	5	4	3	2	1
2. Does the program have documented outcomes for graduating students?	5	4	3	2	1
3. Do these outcomes support the Program objectives?	5	4	3	2	1
4. Are the graduating students capable of performing these outcomes?	5	4	3	2	1
5. Does the department assess its overall performance periodically using quantifiable measures?	5	4	3	2	1
6. Is the result of the Program Assessment documented?	5	4	3	2	1
Total Encircled Value (TV)	19				
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.05	3.17				

Criterion 2– Curriculum Design and Organization					Weight = 0.20
Factors	Score				
1. Is the curriculum consistent?	5	4	3	2	1
2. Does the curriculum support the program's documented objectives?	5	4	3	2	1
3. Are the theoretical background, problem analysis and solution design stressed within the program's core material?	5	4	3	2	1
4. Does the curriculum satisfy the core requirements laid down by PEC?	5	4	3	2	1
5. Does the curriculum satisfy the major requirements laid down by HEC and the PEC?	5	4	3	2	1
6. Does the curriculum satisfy the professional requirements as laid down by PEC?	5	4	3	2	1
7. Is the information technology component integrated throughout the program?	5	4	3	2	1
8. Are oral and written skills of the students developed and applied in the program?	5	4	3	2	1
Total Encircled Value (TV)	38				
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.20	19				

Criterion 3– Laboratories and Computing Facilities					Weight = 0.10
Factors	Score				
1. Are the laboratory manuals/ documentation/ instructions etc. for experiments available and readily accessible to faculty and students?	5	4	3	2	1
2. Are there adequate number of support personnel for instruction and maintaining the laboratories?	5	4	3	2	1
3. Are the University's infrastructure and facilities adequate to support the program's objectives?	5	4	3	2	1
Total Encircled Value (TV)	15				

SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.10	10
--	-----------

Criterion 4– Student Support and Advising		Weight = 0.10				
Factors	Score					
1. Are the courses being offered in sufficient frequency and number for the students to complete the program in a timely manner?	5	4	3	2	1	
2. Are the courses in the major area structured to optimize interaction between the students, faculty and teaching assistants?	5	4	3	2	1	
3. Does the university provide academic advising on course decisions and career choices to all students?	5	4	3	2	1	
Total Encircled Value (TV)	12					
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.10	8					

Criterion 5– Process Control		Weight = 0.15				
Factors	Score					
1. Is the process to enroll students to a program based on quantitative and qualitative criteria?	5	4	3	2	1	
2. Is the process above clearly documented and periodically evaluated to ensure that it is meeting its objectives?	5	4	3	2	1	
3. Is the process to register students in the program and monitoring their progress documented?	5	4	3	2	1	
4. Is the process above periodically evaluated to ensure that it is meeting its objectives?	5	4	3	2	1	
5. Is the process to recruit and retain faculty in place ad documented?	5	4	3	2	1	
6. Are the process for faculty evaluation & promotion consistent with the institution mission?	5	4	3	2	1	
7. Are the process in 5 and 6 above periodically evaluated to ensure that they are meeting their objectives?	5	4	3	2	1	
8. Do the processes and procedures ensure that teaching and delivery of course material emphasize active learning and that course learning outcomes are met?	5	4	3	2	1	
9. Is the process in 8 above periodically evaluated to ensure that it is meeting its objectives?	5	4	3	2	1	
10. Is the process to ensure that graduates have completed the requirements of the program based on standards and documented procedures?	5	4	3	2	1	
11. Is the process in 10 above periodically evaluated to ensure that it is meeting its objectives?	5	4	3	2	1	
Total Encircled Value (TV)	51					
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.15	13.91					

Criterion 6– Faculty		Weight = 0.15				
Factors	Score					
1. Are there enough full time faculty members to provide adequate coverage of the program areas/courses with continuity	5	4	3	2	1	

and stability?					
2. Are the qualifications and interest of faculty members sufficient to teach all courses, plan, modifies and updates courses and curricula?	5	4	3	2	1
3. Do the faculty members possess a level of competence that would be obtained through graduate work in the discipline?	5	4	3	2	1
4. Do the majority of faculty members hold a Ph.D. degree in their discipline?	5	4	3	2	1
5. Do faculty members dedicate sufficient time to research to remain current in their disciplines?	5	4	3	2	1
6. Are there mechanisms in place for faculty development?	5	4	3	2	1
7. Are faculty members motivated and satisfied so as to excel in their profession?	5	4	3	2	1
Total Encircled Value (TV)	25				
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.15	10.71				

Criterion 7– Institutional Facilities		Weight = 0.15				
Factors	Score					
1. Does the institution have the infrastructure to support new trends such as e-learning?	5	4	3	2	1	
2. Does the library contain technical collection relevant to the program and is it adequate staffed?	5	4	3	2	1	
3. Are the class rooms and offices adequately equipped and capable of helping faculty carry out their responsibilities?	5	4	3	2	1	
Total Encircled Value (TV)	15					
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.15	15					

Criterion 8– Institutional Support		Weight = 0.10				
Factors	Score					
1. Is there sufficient support and finances to attract and retain high quality faculty?	5	4	3	2	1	
2. Are there an adequate number of high quality graduate students, teaching assistants and Ph.D. students?	5	4	3	2	1	
Total Encircled Value (TV)	8					
SCORE 1 (S1) = [TV/ (No. of Question * 5)] * 100 * 0.10	8					

$$\begin{aligned}
 \text{Overall Assessment Score} &= S1+S2+S3+S4+S5+S6+S7+S8 \\
 &= 3.17+19+10+8+13.91+10.71+15+8 \\
 &= 87.79
 \end{aligned}$$