



PROGRAM SPECIFICATION AND STRUCTURE

Doctor of Philosophy Program in Physical Therapy (International Program) Curriculum lasted revised in 2016

1. **Program Title** Doctor of Philosophy Program in Physical Therapy
2. **Name of Degree**

Full name	Doctor of Philosophy (Physical Therapy)
Abbreviation	Ph.D. (Physical Therapy)
3. **Responsible Unit**

3.1 Faculty of Physical Therapy, Mahidol University	Teaching Institution
3.2 Faculty of Graduate School, Mahidol University	Awarding institute
4. **Philosophy and Expected Learning Outcomes**
 - 4.1 **Philosophy of The Program**

To produce the Ph.D. student who collaborate with mentor to construct the new knowledge for advancement the field of Physical Therapy from basic, applied and clinical knowledges and use of Physical Therapy outcome-based.
 - 4.2 **Program Objectives**

Upon completion of the doctoral program, graduate must be able to

 - 4.2.1 have knowledge or innovation that creates important academic benefits and professional practice in physical therapy
 - 4.2.2 develop conceptual framework, link concepts from physical therapy or related fields, conduct research to create new knowledge
 - 4.2.3 effectively search, communicate and present academic results on the international stage by using appropriate technology
 - 4.2.4 have responsibility to carry out their own tasks and groups to achieve effective results and show academic and research leadership
 - 4.2.5 have morality, professional and research ethics. Be able to handle complex ethical problems in the academic or professional context accurately and timely
 - 4.3 **Expected Learning Outcomes of the Program**
 - 4.3.1 Integrate contemporary knowledge to develop conceptual framework in physical therapy
 - 4.3.2 Conduct original research to create novel knowledge or innovation in the physical therapy profession
 - 4.3.3 Effectively perform international academic communication

- 4.3.4 Develop leadership potential in research
- 4.3.5 Show a sense of responsibility to own and team's work in a productive and effective manner
- 4.3.6 Identify moral and ethical problems and explain the solution in academic and clinical research

5. Admission requirements

5.1 Applicant holding a Master's degree

- Holding a Master's degree in Physical Therapy or related field from the institutions which approved by the office of the higher education commission.
- Having cumulative GPA not less than 3.50
- Have and English Proficiency Examination score as the requirement of Faculty of Graduate Studies
- Other exceptions may be considered by the Program Director and the Dean of the Faculty of Graduate Studies

5.2 Applicant holding a Bachelor's degree

- Holding a Bachelor's degree in Physical Therapy or related field from the institutions which approved by the office of the higher education commission.
- Having cumulative GPA not less than 3.50
- Have and English Proficiency Examination score as the requirement of Faculty of Graduate Studies
- Other exceptions may be considered by the Program Director and the Dean of the Faculty of Graduate Studies

6. Language: English is used for teaching and learning

7. Curriculum

7.1 Number of credits (not less than)

- For those holding Master's degrees: not less than 48 credits
- For those holding Bachelor's degrees: not less than 75 credits

7.2 Curriculum structure

The curriculum structure is set in compliance with Announcement of Ministry of Education on the subject of Criteria and Standards of Graduate Studies B.E. 2558, Doctor of Philosophy Degree, Plan A2 as below:

(1) Student holding Master's degree

- Required courses 8 credits
- Elective courses not less than 4 credits
- Thesis 36 credits
- Total not less than 48 credits

(2) Students holding Bachelor's degree

- Required courses 21 credits
- Elective courses not less than 6 credits
- Thesis 48 credits
- Total not less than 75 credits

7.3 Course in curriculum

7.3.1 Required course

		Credits (lecture – practice – self-study)
Student holding Master's degree (8 credits)		
PTPT 702	Advanced Measurement and Evaluation for Physical Therapist	3(1-4-4)
PTPT 704	Advanced Statistics in Health Sciences	3(2-2-5)
PTPT 705	Contemporary Topics in Movement Science and Physical Therapy	1(1-0-2)
PTPT 708	Physical Therapy Seminar	1(1-0-2)
Student holding Bachelor's degree (21 credits)		
PTPT 701	Advanced Research Methodology in Health Sciences	3(2-2-5)
PTPT 702	Advanced Measurement and Evaluation for Physical Therapist	3(1-4-4)
PTPT 703	Advanced Biomechanics of Human Movements	3(2-2-5)
PTPT 704	Advanced Statistics in Health Sciences	3(2-2-5)
PTPT 705	Contemporary Topics in Movement Science and Physical Therapy	1(1-0-2)
PTPT 708	Physical Therapy Seminar	1(1-0-2)
PTPT 709	Research Practicum	1(0-2-1)
PTPT 617	Advanced Motor Control and Learning	3(2-2-5)
GRID 603	Biostatistics	3(3-0-6)

7.3.2 Elective courses: For those holding Master's degrees: not less than 4 credits
For those holding Bachelor's degrees: not less than 6 credits

		Credits (lecture – practice – self-study)
PTPT 710	Selected Topics in Physical Therapy	1(0-3-1)
PTPT 711	Teaching Practicum	1(0-2-1)
PTPT 712	Advanced Clinical Practice for Research	1(0-2-1)
PTPT 713	Updated Physical Therapy in Respiratory and Cardiovascular Systems	2(1-2-3)
PTPT 714	Biomechanics in Research	2(1-2-3)
PTPT 715	Sport Biomechanics and Clinical Application	3(2-2-5)
PTPT 716	Applied Ergonomics in Musculoskeletal System Disorders	2(2-0-4)
PTPT 717	Motor Development Through Life Span	3(3-0-6)
SCID 500	Cell and Molecular Biology	3(3-0-6)

In addition to elective courses mentioned above, a student may register other courses in international program offered by other faculties equivalent to graduate studies, Mahidol University or the ones offered by other universities according to the student's interest with the approval of the curriculum committee or the advisor.

7.3.3 Thesis

Students holding Master's degrees:	PTPT 699	Dissertation	36 (0-108-0)
Students holding Bachelor's degrees:	PTPT 799	Dissertation	48 (0-144-0)

8. Study Plan

For students with Master degree in Physical Therapy

Year	Semester 1			Semester 2		
1	PTPT 702	Advanced Measurement and Evaluation for Physical Therapist	3(1-4-4)	PTPT 704	Advanced Statistics in Health Sciences	3(2-2-5)
	PTPT 708	Physical Therapy Seminar	1(1-0-2)	PTPT 705	Contemporary Topics in Movement Science and Physical Therapy	1(1-0-2)
	Elective Courses		3	Elective Courses		1
	Total		7 credits	Total		5 credits
2	PTPT 699	Dissertation	9(0-27-0)	PTPT 699	Dissertation	9(0-27-0)
	Total		9 credits	Total		9 credits
3	PTPT 699	Dissertation	9(0-27-0)	PTPT 699	Dissertation	9(0-27-0)
	Total		9 credits	Total		9 credits

For students with Bachelor degree in Physical Therapy

Year	Semester 1			Semester 2		
1	PTPT 701	Advanced Research Methodology in Health Sciences	3 (2-2-5)	PTPT 704	Advanced Statistics in Health Sciences	3(2-2-5)
	PTPT 703	Advanced Biomechanics of Human Movements	3 (2-2-5)	PTPT 705	Contemporary Topics in Movement Science and Physical Therapy	1(1-0-2)
	PTPT 667	Advanced Motor Control and Learning	3 (2-2-5)	Elective Courses		3
	GRID 603	Biostatistics	3 (3-0-6)			
	Total		12 credits	Total		7 credits
2	PTPT 702	Advanced Measurement and Evaluation for Physical Therapist	3(1-4-4)	PTPT709	Research Practicum	1(0-2-1)
	PTPT 708	Physical Therapy Seminar	1 (1-0-2)	Qualifying Examination		
	Elective Courses		3			
	Total		7 credits	Total		1 credits
3	PTPT 799	Dissertation	8(0-24-0)	PTPT 799	Dissertation	8(0-24-0)
	Total		8 credits	Total		8 credits

Year	Semester 1			Semester 2		
4	PTPT 799	Dissertation	8 (0-24-0)	PTPT 799	Dissertation	8 (0-24-0)
	Total		8 credits	Total		8 credits
5	PTPT 799	Dissertation	8 (0-24-0)	PTPT 799	Dissertation	8 (0-24-0)
	Total		8 credits	Total		8 credits

9. Thesis requirement

Thesis requirements must be research on topics related to the development of knowledge in service quality development, treatment methods and technology in physical therapy and movement science, efficiency and effectiveness of application of Thai wisdom related to physical therapy, promote health, prevent injuries and increase welfare and work safety as specified in Article 3.1.4, which must be delivered in accordance with the form and duration of the curriculum set strictly

9.1 Short Description

The thesis is to conduct research on the selected topic in physical therapy with research ethics. Synthesis and criticism, thesis writing, thesis presentation, compilation of research results for publication under the guidance of a thesis advisor. Presenting the research proposal and research progress that is professional development and creating new knowledge related to physical therapy or movement science and learn to solve problems or obstacles that occur during the research process.

9.2 Standard Learning Outcomes

Students achieve the learning standards in all aspects according to the curriculum standards, consisting of knowledge and understanding of the research process, developing and creating new knowledge, presenting research results with appropriate information technology at the international level, and having morality, responsibility and good leadership in professional and academic fields.

9.3 Time Frame

- Student holding Master's degree: Semester 1, academic year 2 onward
- Student holding Bachelor's degree: Semester 1, academic year 3 onward

9.4 Number of credits

- Student holding Master's degree: 36 credits
- Student holding Bachelor's degree: 48 credits

9.5 Preparation

Consultation hours are scheduled and create an operational plan. Prepare a consultation record, provide academic information, research, funding sources via the website and always updated. Including rules and procedures for thesis according to the regulations of Mahidol University on graduate studies. Having seminar courses to facilitate the presentation of the thesis proposal according to the schedule

9.6 Evaluation Process

The evaluation process is in accordance with the regulations of Mahidol University on graduate studies, B.E. 2556.

10. Criteria for Student Evaluation

10.1 Grading System

Grading system and graduation shall be complied with the criteria stated in Regulations of Mahidol University on Graduate studies.

10.2 Evaluation Process for the Learning Outcome of Students

10.2.1 Subject evaluation and assessment. The process involves student assessment, teaching plan assessment, assessment of examination, assessment of assignment, behavioral assessment of student and program committee meeting to evaluate and adjust the subject for next academic year.

10.2.2 Program quality assessment feedback from stakeholder (current student, alumni and employer, external experts)

10.3 Graduation Requirement

10.3.1 For students with Master degree in Physical Therapy

- Student must complete the degree within a-6-year period
- Must study all subjects following the curricular structure; study subjects not less than 12 credits and thesis 36 credits. The total credit earned through the curriculum is not less than 48 credits.
- The average grade throughout the curriculum must not less than 3.00.
- Passed English subjects upon Graduate Studies criteria, Mahidol University.
- Pass the qualifying examination
- Present and pass the final thesis examination with by the committee specified by the Graduate Studies.
- Thesis or part of the thesis must be published or at least be accepted for publication in international journals according to Graduate Studies stated for at least 1 publication.

10.3.2 For students with Master degree in Physical Therapy

- Student must complete the degree within a-8-year period
- Must study all subjects following the curricular structure; study subjects not less than 27 credits and thesis 48 credits. The total credit earned through the curriculum is not less than 75 credits.
- The average grade throughout the curriculum must not less than 3.00.
- Passed English subjects upon Graduate Studies criteria, Mahidol University.
- Pass the qualifying examination
- Present and pass the final thesis examination with by the committee specified by the Graduate Studies.
- Thesis or part of the thesis must be published or at least be accepted for publication in international journals according to Graduate Studies stated for at least 1 publication.

11. Quality Assurance

11.1 Regulatory Standard

International Doctoral Degree curriculum has system management control according to the National Standard Framework, Educational Minister Acts entitles Graduate Study Standard

Criteria 2015, Total Quality Framework for Graduate study, Physical Therapy 2013, and also the vision and mission of Mahidol University and Faculty of Physical Therapy. The Doctoral Degree in Physical Therapy (International Program) has the process of curriculum management to produce graduates according to Curriculum learning outcomes as follows:

- The curriculum management committee has the responsibilities of managing, developing curriculum, teaching and learning by year planning as well as having responsible persons for supervision on teaching and learning, and various activities for student achievements on expected learning outcomes. These are done by regular online meetings, and direct meetings for any important tasks. In addition, there are meetings to follow up tasks and evaluate curriculum year plan in every 6 months.
- The Faculty of Physical Therapy Education development committee consisted of Chairperson and secretary for individual curriculums. They are responsible for overseeing and developing curriculums in all levels of the Faculty to create harmonization and united direction by bimonthly meetings.
- The committee for sections is responsible for overseeing and following up the curriculum plan as well as the annual academic year evaluation.

11.2 Graduate Students

The graduate from The Doctoral Degree in Physical Therapy (International Program) must meet the criteria according to the National Standard Framework, Educational Minister Acts entitles Graduate Study Standard Criteria 2015, Total Quality Framework for Graduate study, Physical Therapy 2013, vision and mission of Mahidol University and Faculty of Physical Therapy, and also meet the survey evaluation from graduate students and stakeholders. In addition, the graduates are expected attain the similar standard as graduate from international institutions and able to perform academic and research at the international levels organization.

11.3 Students

11.3.1 Student admission and pre-course preparation

Student can be admitted through two channels : 1. Written examination arranged by graduate school and interview 2. Interview-only admission. Most of the Thai students are admitted through the first channel whereas the international applicants are admitted through the second channel. Or applicants will be interviewed by the faculty committee to ensure that the student are suitable for the course along with the assessment of the English proficiency.

11.3.2 Student progress

Student must consult with supervisor in term of course work progress, qualifying exam, thesis proposal, and thesis defense. They must also submit PhD timeline documents to the chairman of the program. In every semester, there will be a progress meeting by student by students, advisors and committee, to follow up and take feedback in term of teaching research and research supports to rectify any issues that may occur.

11.3.3 Student promotion and development

The program runs several supporting activities with an aim to incentivize students to complete the degree. They include award for the first publisher, award for publication in high impact factor journal, award for first finisher of the class, funding for academic training, arranging for lunch seminar, research talk and English for life activities and co-supervision by academics from foreign institution and international guest speaker.

11.3.4 Student satisfaction and complaint handling.

The program will be evaluated by student an annual basis. Feedback from the students will be taken in view to improve the student experiences and program quality. The program aims to implement suggestions within one academic year.

11.4 Instructors

Faculty has new staff recruitment system by advertising the qualification of the applicants according to the area of lacking the staff. The selection is based on knowledge, abilities, experiences, professional skills, personality, teaching skills and teacher characters by the selection committee who has been assigned. There is mentoring system for providing consultation, suggestion, and orientation for new academic staff to capable of adaptation and learning in various tasks. There is also development plan for individual new staff. For the production of academic works of academic staff, the academic and research sections are organized training on different knowledge essential for academic creativity as well as the academic meetings for experience sharing among academic staff, students, physical therapists and other interests. In order to achieve objectives under the vision and the mission, as well as to develop potential of academic staff, the Faculty has specified the evaluation system for individual academic staff on their performances. The evaluation is emphasizing on following: 1) teaching and learning 2) research 3) service 4) administration and 5) cultural support.

11.5 Program, Study and Student Assessment

Details of curriculum management processes in various aspects are as follows:

11.5.1 Subject contents

Curriculum and contents have been designed and improved to be up-to-dated to respond to the needs of stake-holders, graduates, curriculum objectives, vision and mission of the Faculty and University as well as changing situations both in Thai and International societies. Various improvements are conducted by the curriculum administrative committee, course coordinators, and permanent academic staff of the curriculum, lecturers, users, and graduate.

11.5.2 Teacher assignment system and teaching and learning strategies

Lecturers in the curriculum have appropriate qualification according to the Minister of Education acts on the Standard criteria for Graduate Study curriculum 2015. The assignment of teachers in each subject is considered from specialized expertise and experience in order for students to gain knowledge, experiences, and to develop capabilities from experts. The specification of thesis advisor is considered with direct specialty to students' research topics. Teaching and learning strategies in the curriculum is emphasized on searching, presentation, and discussion by the problem solving and evidence-based to develop students to achieve learning outcomes as expected by the curriculum. All five learning standard are in coupling with the promotion of student activities to improve 21st Century skills such as language, skills, participation, technology, self-learning and searching. All administration processes can be checked through the preparation of course syllabus in the format of TQF3 and TQF4 as well as the course conducting report in the format of TQF5 and TQF6 by course coordinators at the end of each semester. In addition, the curriculum has expected learning outcomes after graduation by establishing learning outcomes and organizing learning strategy for each learning topic and subject in accordance with the curriculum expected learning outcomes.

11.5.3 Learner evaluation

Learner evaluation is done following the standard of the National Framework of Higher Education. Learning results of students in individual subjects. The control of teaching and learning are achieved through evaluation and curriculum evaluation (TQF5, TQF6 and TQF7). Thesis assessment is performed by the thesis examination committee.

11.6 Learning Support

University, Faculty and curriculum provided supporting facilities for students as follows:

- Annual budget from the Graduate Studies and Faculty both from the national budget, income budget for supplying textbooks, learning media, information technology, and computer software and hardware in order to sufficiently support teaching and learning in classes. This is done through the request by permanent curriculum staff or course coordinators and from the survey of student needs.
- Provide library, textbooks, journals, and electronic databases for searching academic contents in the curriculum. Information, technology service, searching for academic collection services across institutions nationally and internationally are available. Book loans and returns, journal services by the librarians.
- Sufficient classrooms, study media and materials as well as information technology for teaching and learning.
- Faculty computer room for searching information to support student learning.
- Student room, computers, printers, and desks for students to prepare themselves before classes and for group activities.
- Research areas and equipment sufficiently and ready for student research projects.
- Support student activities to develop their potential in conducting a research project in all processes since ethical approval to writing for publication
- International conference for presenting student's research work and exchanging knowledge with experts.
- Study grants and grants for research presentation nationally and internationally. Award for publication nationally and internationally, grant for research assistants and teaching assistants.
- Faculty has Physical Therapy clinic in the physical therapy center as the resource for managing learning, research and clinical experience improvement.