PTU | INTERNATIONAL COLLEGE

DOCTOR OF PHILOSOPHY IN DIGITAL EDUCATION MANAGEMENT



Doctor of Philosophy Program in Digital Education Management

1. Program Name

Program Name : Doctor of Philosophy Program in Digital Education Management

2. Degree and Field of Study

Full Name : Doctor of Philosophy (Digital Education Management)

Abbreviation : Ph.D. (Digital Education Management)

3. Total Program Credits

3.1 Doctoral Program, Plan 1.1 Academic Track (Dissertation-Focused): total credits throughout the program: 48 credits

3.2 Doctoral Program, Plan 2.1 Academic Track (Coursework and Dissertation): total credits throughout the program: 48 credits

4. Career Opportunities Upon Graduation

4.1 Teacher, Lecturer, Speaker, Academic, Researcher

4.2 Government Official, Public Sector Employee

4.3 Analyst, Planner, and Organizational Policy Specialist

5. Curriculum Details

5.1 Program Structure

Plan 1.1 Academic Track (Dissertation-Focused)

This study plan emphasizes research, with students producing a high-quality dissertation that contributes to academic advancement and the dissemination of knowledge. The academic advisor and program director may require students to take additional courses and/or participate in additional academic activities without earning credits so that students achieve the outcomes specified by the program.

1) Dissertation 48 credits

Plan 2.1 Academic Track (Coursework and Dissertation)

This study plan combines coursework with high-quality research that contributes to academic advancement and the dissemination of knowledge.

1) Basic Supplementary Courses	(Non-credit)
2) Compulsory Courses	9 credits
3) Elective Courses	3 credits
4) Dissertation	36 credits

5.2 Courses in the Curriculum

5.2.1 Basic Supplementary Courses (Non-credit)

Students must meet the English proficiency requirements set out in Pathumthani University announcements and must register for other basic supplementary courses as determined by the program director or program committee, based on the student's master's degree transcript and entrance examination results. These courses do not count toward the program credits and are graded S/U (Satisfactory/Unsatisfactory).

ENG697101	Extensive English for CEFR Competency	2(2-0-4)
PEM697102	Fundamentals and Concepts of Digital Education Management	3(3-0-6)

5.2.2 Compulsory Courses

All students enrolled in Plan 2.1 Academic Track (Coursework and Dissertation) must complete the following courses, totaling 9 credits.

PEM697201	Advanced Digital Education Management	3(3-0-6)
PEM697202	Advanced Digital Skills Development for Teachers and Learners	3(3-0-6)
PEM697203	Advanced Digital Education Management Research Project	3(3-0-6)

5.2.3 Elective Courses

Students enrolled in Plan 2.1 Academic Track (Coursework and Dissertation) select courses from the following list, totaling 3 credits.

PEM697301	Advanced Management and Policy in Digital Education Management	3(3-0-6)
PEM697302	Strategic Design and Management of Educational Automation Systems	3(3-0-6)
PEM697303	Leadership and Strategic Management in Digital Education	3(3-0-6)
PEM697304	Systemic Change Management for Digital Education	3(3-0-6)
PEM697305	Advanced International Curricula and Digital Assessment Tools	3(3-0-6)
PEM697306	Advanced Technology and Platforms for Education	3(3-0-6)

PEM697307	Advanced Data Analysis and Learning Assessment	3(3-0-6)
PEM697308	Advanced Designing and Developing Digital Curriculum	3(3-0-6)

5.2.4 Dissertation

Plan 1.1 Academic Track (Dissertation-Focused): 48 credits

PEM697401	Dissertation 1	9(0-18-9)
PEM697402	Dissertation 2	9(0-18-9)
PEM697403	Dissertation 3	6(0-12-6)
PEM697404	Dissertation 4	9(0-18-9)
PEM697405	Dissertation 5	9(0-18-9)
PEM697406	Dissertation 6	6(0-12-6)

Plan 2.1 Academic Track (Coursework and Dissertation): 36 credits

PEM697407	Dissertation 1	9(0-18-9)
PEM697408	Dissertation 2	9(0-18-9)
PEM697409	Dissertation 3	9(0-18-9)
PEM697410	Dissertation 4	9(0-18-9)

5.3 Course Descriptions

1) Basic Supplementary Courses (Non-credit)

ENG697101	Extensive English for CEFR Competency	2(2-0-4)

Listening to short conversations and talks in general, academic, and professional settings; listening to short lectures; reading for main ideas and details in professional and academic contexts; reading for implied meanings; writing for professional and academic purposes; using English flexibly and effectively across social, academic, and professional contexts.

PEM697102 Fundamentals and Concepts of Digital Education Management 3(3-0-6)

The fundamentals and key concepts of Digital Education Management, which involves the use of digital technology in teaching and learning processes in the digital age; the role of educational innovations and the use of technology to enhance the learning experience; and learning theories relevant to the use of digital tools and technologies in educational environments. **Concepts and principles of Digital Education Management:** understanding the current state of Digital Education Management and how technology is applied in learning processes. **Educational innovations and technology for learning:** exploring new educational innovations such as learning through online platforms (MOOCs), Learning Management Systems (LMS), and immersive learning through Virtual Reality (VR). **Learning theories in the digital age:** studying various learning theories related to the integration of technology in education, including Self-directed Learning, Collaborative Learning, and Gamification.

2) Compulsory Courses

All students enrolled in Plan 2.1 Academic Track (Coursework and Dissertation) must complete the following courses, totaling 9 credits.

PEM697201 Advanced Digital Education Management 3(3-0-6)

Advanced theoretical frameworks and best practices in digital education management, emphasizing the development of innovations, technologies, and contemporary strategies for administration in educational institutions at all levels. Students analyze the impact of emerging digital technologies such as artificial intelligence (AI), big data analytics, blockchain, and automation on organizational structures and instructional processes. Topics include innovative leadership, digital policy design, and risk management to foster sustainability and competitiveness in modern education systems. The course also involves research and development of digital education management models suited to both global and local contexts.

PEM697202 Advanced Digital Skills Development for Teachers and Learners 3(3-0-6)

The development of advanced digital skills for both teachers and learners to prepare them for the use of digital technology in teaching and learning in the modern era, including learning and practicing essential digital skills such as using digital tools, creating digital content, and utilizing various learning media to make the learning experience effective and engaging. **Basic digital skills for teachers and learners:** learning and practicing essential skills such as using computers, the internet, and applications for teaching and learning. **Creating digital content:** using digital tools to create educational content such as teaching videos, online articles, and digital learning documents. **Using technology for teaching:** using tools and applications for online teaching, including Learning Management Systems (LMS), classroom learning software, and technology for communication and collaboration in the classroom. **Assessing and tracking learner progress:** using technology to assess learners' performance, such as online testing tools, and to track learners' development.

PEM697203 Advanced Digital Education Management Research Project 3(3-0-6)

The advanced research process in Digital Education Management, emphasizing the use of appropriate research methods to explore and analyze issues related to Digital Education Management at both individual and organizational levels. **Research design in Digital Education Management:** planning and designing research, including selecting research topics related to educational technology. **Research methods:** using both quantitative and qualitative research methods to study the impact of digital technologies on educational systems. **Data collection:** selecting tools and techniques for collecting data from learners and educators, as well as from online platforms. **Data analysis:** using digital tools to analyze research data, such as statistical software for quantitative analysis and text analysis programs for qualitative studies. **Interpreting and presenting research results:** writing research reports, interpreting findings related to Digital Education Management, and presenting research outcomes in an accessible way.

3) Elective Courses

Students enrolled in Plan 2.1 Academic Track (Coursework and Dissertation) select courses from the following list, totaling 3 credits.

PEM697301 Advanced Management and Policy in Digital Education Management 3(3-0-6)

Advanced management methods and policies related to Digital Education Management, emphasizing strategies for managing digital learning environments in educational institutions at all levels, including early childhood, primary, secondary, and higher education, and exploring policies that affect the development and expansion of teaching and learning through digital technologies. **Managing Digital Education Management:** planning, resource management, and creating policies and strategies that support the integration of technology into classrooms, as well as developing the ability to use digital tools to enhance learning. **Digital Education Management policy:** analyzing policies and regulations related to the integration of technology in education at both national and institutional levels. **Developing human resources for Digital Education Management:** training and developing educators to prepare them for teaching in the digital age, including promoting digital skills for teachers and students. **Strategies for promoting Digital Education Management:** developing strategies and approaches to improve Digital Education Management systems in alignment with technological advancements and national education policies.

PEM697302 Strategic Design and Management of Educational Automation Systems 3(3-0-6)

Theoretical and practical dimensions of educational automation systems from a strategic perspective, focusing on the design, development, and integration of automated systems aligned with institutional strategic planning in the digital age. Topics include information systems architecture, database systems, learning systems, and administrative processes that can be automated through technologies such as artificial intelligence (AI), the Internet of Things (IoT), and robotic process automation (RPA). The course emphasizes the application of automation in academic administration, human resources, budgeting, and evaluation to improve efficiency, accuracy, and transparency. Ethical considerations, data security, and digital governance are critically examined. Students engage in research and innovation projects that develop automation solutions suited to both Thai and international education contexts.

PEM697303 Leadership and Strategic Management in Digital Education 3(3-0-6)

An in-depth exploration of theories, concepts, and strategic models of educational management in the digital age, focusing on the impact of digital technologies on educational administration, policymaking, and institutional transformation at both macro and micro levels. Students critically examine the role of educational leaders in leading digital transformation and explore applications of advanced technologies such as artificial intelligence (AI), big data, blockchain, and automation in developing effective, innovative management systems. The course also covers ethics, cybersecurity, educational governance in the digital age, and the creation of new knowledge through research to advance educational management in a knowledge-based society.

PEM697304 Systemic Change Management for Digital Education 3(3-0-6)

An in-depth study of the theories, concepts, and strategies of systemic change management in digital education, emphasizing holistic transformation across policy, institutional, and operational levels. Students explore the roles of educational leaders in driving change and evaluate institutional structures, organizational culture, and stakeholder behavior in adapting to the digital age. The course examines strategies for managing resistance, fostering stakeholder engagement, and assessing both short-term and long-term impacts of change. Through analysis of international case studies and the development of policy recommendations, students build the capacity to lead sustainable change in education systems.

PEM697305 Advanced International Curricula and Digital Assessment Tools 3(3-0-6)

Study of international curricula, such as the International Baccalaureate (IB) and Cambridge programs, which provide internationally standardized education that prepares students for global opportunities, together with the role of digital tools in assessment, offering instant feedback, personalized learning, and data-driven insights. **International curricula:** an in-depth study of the IB and Cambridge curricula and their impact on student learning and global opportunities. **Digital assessment tools:** the use of digital tools such as Kahoot, Google Forms, and AI-based grading systems to automate assessment and reduce teachers' workload. **Personalized learning:** leveraging technology to create learning experiences tailored to students' individual needs and abilities. **Fostering critical thinking and adaptability:** how international curricula develop students' critical thinking skills and adaptability. **Cultural challenges:** exploring the cultural challenges that may arise in international curricula and strategies for addressing them.

PEM697306 Advanced Technology and Platforms for Education 3(3-0-6)

The study, design, and development of advanced technologies and platforms used in education, particularly e-Learning and Learning Management Systems (LMS), and the application of cutting-edge technologies to teaching and learning in the digital age, including Artificial Intelligence (AI), Virtual Reality (VR), and Augmented Reality (AR) to create immersive and engaging learning experiences, as well as Gamification and Game-Based Learning to motivate learners and create enjoyable and effective learning environments. **Designing and developing e-Learning and LMS:** understanding and designing online learning systems through e-Learning platforms and managing learning through LMS platforms to suit the digital age. **Using AI in education:** exploring the role of AI in improving teaching and learning, such as using AI for assessment or for creating personalized learning experiences. **Using VR and AR for learning:** studying and applying VR and AR technologies to create realistic, interactive, and engaging learning experiences. **Gamification and Game-Based Learning:** applying game principles in the learning process to enhance engagement, motivation, and enjoyment in education.

PEM697307 Advanced Data Analysis and Learning Assessment 3(3-0-6)

The study of advanced data analysis and learning assessment methods in the context of Digital Education Management, using various tools and techniques to assess learners' outcomes both quantitatively and qualitatively. Data analysis includes statistical methods and computational analysis to observe trends and outcomes in the learning process, while assessment incorporates digital technologies such as Learning Management Systems (LMS) for online learning evaluation. **Learning data analysis:** using statistical techniques and data analysis tools to process learning data from digital systems to gain insights for improving the learning process. **Learning assessment:** designing and using a variety of assessment tools, such as online quizzes, collaborative project evaluations, and digital methods for collecting learning data. **Assessment in online learning systems:** using digital platforms such as LMS to assess students' learning and applying online tools to evaluate learning outcomes. **Applying learning data to improve instruction:** using the results of data analysis to refine instructional design and develop strategies to enhance the effectiveness of the learning process.

PEM697308 Advanced Designing and Developing Digital Curriculum 3(3-0-6)

The design and development of advanced, high-quality digital curricula by leveraging digital technologies and tools to create effective and engaging learning experiences. The course emphasizes designing curricula that support teaching and learning in the digital age, including the use of digital learning platforms, online content creation, and adapting to the needs and characteristics of learners in the digital era. **Principles of digital curriculum design:** designing digital curricula that can be applied across various contexts, considering learning outcomes and instructional effectiveness. **Developing digital curriculum content:** creating content in formats suitable for online learning, such as videos, articles, and interactive learning activities. **Using technology and tools for curriculum development:** utilizing digital tools such as Learning Management Systems (LMS), e-portfolios, and digital media to create diverse learning experiences that are accessible anywhere, anytime. **Evaluating digital curricula:** effectively measuring and evaluating learning outcomes in digital curricula and improving curriculum design based on assessment results to enhance teaching and learning effectiveness.

4) Dissertation

Plan 1.1 Academic Track (Dissertation-Focused): 48 credits

PEM697401 Dissertation 1 9(0-18-9)

For students in Plan 1.1 Academic Track (Dissertation-Focused): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; searching, studying, and learning the principles, concepts, and theories of education, digital technology, and other knowledge and skills that are necessary and related to the dissertation topic; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article in a research journal, under the guidance and supervision of the dissertation advisor.

PEM697402 Dissertation 2 9(0-18-9)

For students in Plan 1.1 Academic Track (Dissertation-Focused): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; searching, studying, and learning the principles, concepts, and theories of education, digital technology, and other knowledge and skills that are necessary and related to the dissertation topic; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article in a research journal, under the guidance and supervision of the dissertation advisor.

PEM697403 Dissertation 3 6(0-12-6)

For students in Plan 1.1 Academic Track (Dissertation-Focused): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; searching, studying, and learning the principles, concepts, and theories of education, digital technology, and other knowledge and skills that are necessary and related to the dissertation topic; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article in a research journal, under the guidance and supervision of the dissertation advisor.

PEM697404 Dissertation 4 9(0-18-9)

For students in Plan 1.1 Academic Track (Dissertation-Focused): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; searching, studying, and learning the principles, concepts, and theories of education, digital technology, and other knowledge and skills that are necessary and related to the dissertation topic; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article in a research journal, under the guidance and supervision of the dissertation advisor.

PEM697405 Dissertation 5 9(0-18-9)

For students in Plan 1.1 Academic Track (Dissertation-Focused): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; searching, studying, and learning the principles, concepts, and theories of education, digital technology, and other knowledge and skills that are necessary and related to the dissertation topic; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article in a research journal, under the guidance and supervision of the dissertation advisor.

PEM697406 Dissertation 6 6(0-12-6)

For students in Plan 1.1 Academic Track (Dissertation-Focused): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; searching, studying, and learning the principles, concepts, and theories of education, digital technology, and other knowledge and skills that are necessary and related to the dissertation topic; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article in a research journal, under the guidance and supervision of the dissertation advisor.

Plan 2.1 Academic Track (Coursework and Dissertation): 36 credits

PEM697407 Dissertation 1 9(0-18-9)

For students in Plan 2.1 Academic Track (Coursework and Dissertation): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article, at minimum in conference proceedings, under the guidance and supervision of the dissertation advisor.

PEM697408 Dissertation 2 9(0-18-9)

For students in Plan 2.1 Academic Track (Coursework and Dissertation): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article, at minimum in conference proceedings, under the guidance and supervision of the dissertation advisor.

PEM697409 Dissertation 3 9(0-18-9)

For students in Plan 2.1 Academic Track (Coursework and Dissertation): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article, at minimum in conference proceedings, under the guidance and supervision of the dissertation advisor.

PEM697410 Dissertation 4 9(0-18-9)

For students in Plan 2.1 Academic Track (Coursework and Dissertation): conducting research that emphasizes originality and aims toward new and useful results that advance knowledge of Digital Education Management in the digital economy; passing the dissertation proposal examination; writing the dissertation; passing the dissertation defense examination; and publishing a full research article, at minimum in conference proceedings, under the guidance and supervision of the dissertation advisor.