

Khon Kaen University Announcement

(No. 844/2024)

On The Criteria for Thesis and Independent Study Publication, or Parts of Thesis and Independent Study Publication, for Graduation Requirements in Graduate Studies

To enhance the quality and standards of graduate research in accordance with criteria of Higher Education A.D. 2022 and Khon Kaen University Regulations on Graduate Education Level, A.D. 2023 as well as to develop and elevate the quality of graduate research to fulfill the national and international standards, to drive the university toward becoming a global research university.

By the virtue of section 37 (1) of Khon Kaen University Act. A.D. 2015 and Khon Kaen University Regulations on Graduate Education Level, A.D. 2023 Clause 5 and in adherence to the agreement of the Committee Board of Graduate School Meeting at the 10/2023 on October 5, 2023, as well as the agreement of Khon Kaen University Executive Committee Meeting No. 3/2024 on February 27, 2024, therefore issued the criteria for thesis and independent study publication or parts of thesis and independent study publication for graduation requirements in graduate studies as follows:

Clause 1 This announcement shall be called Khon Kaen University Announcement (No. 844/2024) on The Criteria for Thesis and Independent Study Publication, or Parts of Thesis and Independent Study Publication for graduation requirements in graduate studies

Clause 2 This announcement shall be in effect for students who enroll in new and revised programs from September 27, 2022, onward.

Clause 3 In this announcement:

"Student" refers to master's and doctoral students of Khon Kaen

University

"Publication" refers to The published articles from theses or

independent studies in national or international

academic journals, including full research papers published in the proceedings of national and international academic conferences, the conditions of publication are specified by the program or scholarship.

"Peer Reviewer" refers to

an external expert who reads and evaluates the quality of academic articles in each field before it is published in a journal.

"Academic journal" refers to printed or electronic academic media with defined regular publication schedules that are widely accepted in the academic field. Articles intended for publication in journals must undergo quality screening by qualified peer reviewers. National and international journals must be listed in databases recognized nationally and internationally, as specified by the standards set by the Commission on Higher Education Standards.

"Innovation" refers to

new advancements or improvements that standards, significantly enhance existing efficiency, value, quality, and applicability, leading to widespread commercial or public impact.

"Creative work" refers to creative works in the field of science and technology, or creative works in the realm of fine arts.

"Invention" refers to

research, development, and innovation that may have necessarily passed standard certification or undergone quality assurance. They may still be in the testing phase to meet basic standards, quality, or preliminary requirements before being ready for subsequent commercial use.

Clause 4 The President of Khon Kaen University shall be in charge of this announcement. In case the principles or guidelines are not defined, or if any dispute arises from this announcement, the President of Khon Kaen University has the final authority regarding arbitration, and his/her decision is final.

Clause 5 Publication criteria for graduation requirements

5.1 Doctoral students who enrolled in plan 1.1 and 1.2 every programs:

At least 2 publications from the thesis or parts of the thesis, or at least accepted for publication in a qualified international journal as specified by the Commission on Higher Education Standards. 1 publication is from thesis or parts of thesis that published or at least accepted for publication in an quality international journal, as specified by the Commission on Higher Education Standards **and** at least 1 of innovation, or creative work that can be commercially, socially, or economically beneficial, or there should be at least one patent granted, or as per the conditions of the program or scholarship organization, in order to complete the study.

For students in the Humanities and Social Sciences field, at least one publication is from the thesis, or a part of the thesis must be published or at least accepted for publication in a quality international journal specified by the Commission on Higher Education Standards and one more publication should be published in a quality national or international journal.

In the case of publication in an international academic journal, it must be a journal listed in the database specified by the Civil Service Commission in Higher Education Institutions, the academic journal may be published either in print or electronically.

If the research article is published in a national academic journal, it must be a high-quality academic journal that is recognized in the specific academic field or related fields. In addition, the journal must have been published continuously for at least 3 years and must undergone a peer-review process, where the quality of articles is assessed by at least 3 external reviewers from various institutions. The academic journal may be published either in print or as an electronic journal with an exact publication schedule.

For innovations and creative works, please refer to the attached details in this announcement. The evaluation form should be in accordance with the standards set by the Graduate School.

5.2 Doctoral students who enrolled in plan 2.1 and 2.2 every programs:

At least 1 publication is from thesis or parts of thesis that published or at least accepted for publication in a quality international journal as specified by the Commission on Higher Education Standards **or** one patent granted, or one innovation, or one creative work that can be commercially, socially, or economically beneficial, or as per the conditions of the program or scholarship organization, in order to complete the study.

In the case of publication in international journals for students in the Humanities and Social Sciences fields, if any program is not yet prepared to meet the conditions, an exemption can be requested. The request should be submitted to the Academic Council for consideration and approval.

In the case of publication in an international academic journal, it must be a journal listed in the database specified by the Civil Service Commission in Higher Education Institutions, the academic journal may be published either in print or electronically.

For innovation and creative works, please refer to the attached details in this announcement. The evaluation form should be in accordance with the standards set by the Graduate School.

5.3 Master's students who enrolled in plan 1 (Academic Type) Type A1 every programs:

Thesis or parts of thesis must be published or at least accepted for publication in a quality national or international journal or an innovation, invention, or other academic work meets the searchability criteria established by the University Council as specified by the University Council. Alternatively, it must meet the conditions set by the program or scholarship organization in order to complete the study.

If the research article is published in a national academic journal, it must be a quality academic journal that is recognized in the specific academic field or related fields. In addition, the journal must have a peer-review process where the quality of articles is

assessed by at least 3 external reviewers. The academic journal may be published either in print or as an electronic journal with an exact publication schedule.

In the case of publication in an international academic journal, it must be a journal listed in the database specified by the Civil Service Commission in Higher Education Institutions, the academic journal may be published either in print or electronically.

For innovation and invention, please refer to the attached details in this announcement. The evaluation form should be in accordance with the standards set by the Graduate School.

5.4 Master's students who enrolled in plan 1 (Academic Type) Type A2 every programs:

Thesis or parts of thesis must be published or at least accepted for publication in a quality national or international journal or an innovation, invention, or other academic work that meets the searchability criteria established by the University Council. Alternatively, a full paper must be presented in a reputable academic conference and published in the conference proceedings. The proceedings must have a peer-review process, or it must meet the conditions set by the program or scholarship organization in order to complete the study.

If the research article is published in a national academic journal, it must be a quality academic journal that is recognized in the specific academic field or related fields. In addition, the journal must have a peer-review process where the quality of articles is assessed by at least 3 external reviewers. The academic journal may be published either in print or as an electronic journal with an exact publication schedule.

In the case of publication in an international academic journal, it must be a journal listed in the database specified by the Civil Service Commission in Higher Education Institutions, the academic journal may be published either in print or electronically.

For innovation and invention, please refer to the attached details in this announcement. The evaluation form should be in accordance with the standards set by the Graduate School.

5.5 Master's students who enrolled in plan 2 (Professional Type) every programs:

The result or parts of independent study must be published in academic journal or presented in a searchable academic conference.

If any program sets graduation requirements that are higher than those specified in this announcement, the graduation requirements of that program shall be applied.

Clause 6 To submit publication for graduation criteria for students conducting thesis, must submit the documents to the Graduate School as follows:

- 6.1 6.2 In case the article has not yet been published but has been accepted for publication.
- 6.2.1 The article which will be published in international journal, students must submit the acceptance letter along with the full article as submitted for the publication, a copy of the cover page and inside cover of the latest issue of the journal, all attached to the complete thesis file. Additionally, the time from acceptance to appearance in the database specified by the Civil Service Commission in Higher Education Institutions must not exceed 2 years.
- 6.2.2 The article which will be published in national journal, students must submit the acceptance letter specifying the month and year of the journal issue in which the article will be published, along with full article as submitted for publication, a copy of the cover page and inside cover of the latest issue of the journal, all attach the complete thesis file.

Clause 7 The procedure for submitting publication documents for graduation for students conduct independent studies, students must submit evidence of publication to the affiliated faculty and the Graduate School, according to the following details:

7.1 In the case the article has already been published, the student must submit the publication document along with a copy of the cover and inside cover pages of the journal or proceedings, the table of contents indicating the title of student's article, and either the full article or abstract.

7.2 In the case the article has not yet been published but has been accepted for publication, submit the acceptance letter specifying the month and year the journal will be published, along with either the full article or the abstract sent for publication, and a copy of the cover and inside cover of the latest issue of the journal.

Clause 8 Guidelines for publishing thesis or independent study work:

- 8.1 The article used to fulfill the graduation requirements must list the student who conducted the thesis or independent study as the first author. Additionally, the article must include the names of the main advisor, co-advisor, or any lecturer who contributed to the guidance of the thesis or independent study. The article must also clearly state the name of the student's affiliated faculty and Khon Kaen University.
- 8.2 The published article or the presented work at an academic conference, used to fulfill graduation requirements, must be a research article or original article that is part of the thesis or independent study, or it may be the entire study results.
- 8.3 The format of the published article must include the following sections: Introduction (background and significance of the problem), Research Objectives, Research Methodology, Research Results, Conclusion and Discussion, and References. Alternatively, it should adhere to the requirements of the journal in which it is published.
- 8.4 The article used to fulfill graduation requirements must be published or accepted for publication in a journal or academic publication that undergoes peer review before publishing. For the publication of master's thesis work in Plan 1 (Academic Type) Type A2, only full papers published in conference proceedings can be counted.

Transitory Provisions

Clause 9 For students enrolled in programs approved by the University Council before September 27, 2022, the procedure for publishing thesis or independent study for graduation is as follows:

- 9.1 Students who enrolled from the academic year 2012 to 2015 should adhere to the Graduate School, Khon Kaen University Announcement No. 2143/2011 on The Criteria for Thesis and Independent Study Publication for Graduation Requirements at Graduate Studies and Announcement No. 1623/2015 on The Criteria for Thesis and Independent Study Publication for Graduation Requirements at Graduate Studies (Edition 2).
- 9.2 Students who enrolled between the academic years 2016 and 2018 should follow the Graduate School, Khon Kaen University Announcement No. 1259/2017 regarding The Criteria for Thesis and Independent Study Publication for Graduation Requirements at Graduate Studies.
- 9.3 For students enrolled from the academic year 2019 to programs approved by the University Council before September 27, 2022, they should follow Khon Kaen University

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Announcement No. 3580/2018 on The Criteria for Thesis and Independent Study Publication for Graduation Requirements at Graduate Studies until students in those programs have completed their studies.

Announced on April 1, 2024

(Sighed)

(Assoc. Prof. Charnchai Panthongviriyakul)

President of Khon Kaen University

Attachment of Khon Kaen University Announcement (No. 844/2024) announced on April 1, 2024

Criteria for Evaluating Innovation, Creative Work, or Invention from Thesis

- 1. Evaluate of Innovation Work, Creative Work, or Invention from Thesis must follow the following steps:
- 1) The evaluation of innovation, creative work, or invention can be conducted either concurrently with the thesis defense or after the thesis defense.
- 2) The appointment of a committee to evaluate thesis work that based on innovation or invention criteria must include at least three external experts. These experts should be highly knowledgeable, experienced, and widely recognized in the same field or a related field to the student's course of study.
- 3) The committee must propose the names of external experts who possess high levels of knowledge, expertise, and experience as specified in section 2), along with their educational background. Supporting evidence must also be provided, such as a list of academic works, other achievements, experiences, including positions that demonstrate their widely recognized knowledge, expertise, and high level of experience.

Additionally, the nomination of external experts must be proposed on a per-thesis basis and submitted to the Graduate School.

4) The Dean of the Graduate School shall appoint the committee to evaluate innovation or invention works and review the suitability of the external experts proposed by the faculty as per section 3). Subsequently, the Dean will then submit the names for approval from the University Council.

2. The characteristics of innovation, creative works, or invention, the format, the dissemination, and the quality of the works derived from the thesis are as follows:

2.1 Innovation		
Definition	The innovation works must be new or significantly improved, resulting in	
	the development of standards, efficiency, value, quality, and practical	
	benefits with wide-ranging commercial or public impact. They should	
	have one of the following characteristics:	
	1) Technological innovation, such as products, services, or	
	processes related to production, or	
	2) Social innovation, such as organizational structuring,	
	management system, financial administration, business, marketing, or	
	others.	
Format	Compile documents and evidence that demonstrate the roles and	
	responsibilities of students, the innovation development process, the	
	utilization of innovation works for commercial or public benefit, as well	
	as the outcomes and impacts resulting from the innovation. This should	
	include the following components:	
	1. Documents and evidence demonstrating the roles and responsibilities	
	of students.	
	2. Documents and evidence related to innovation works that summarize	
	information demonstrating the development of works aligned with the	
	innovation work format. They should be possible to classify into	
	technological innovation or social innovation, each should comprising of	
	the following points:	
	2.1 Information of situation and problem before implementation.	
	2.2 An explanation of guidelines or processes utilized to solve the	
	problem or create new value in new dimensions. Specify novel	
	approaches, novel methods, or approaches to achieve better	
	efficiency or effectiveness. This should encompass methodologies	
	suitable for the context of Thailand, approaches that lead to the	

development of new products or knowledge within the country through reverse engineering, and involvement in problem identification, and resolution, or in creating novel value dimensions.

- 2.3 An explanation of the knowledge and expertise used in problem-solving or value creation.
- 2.4 An explanation of the new knowledge that emerged after finishing the implementation.
- 2.5 An explanation of the operation or utilization of works.
- 2.6 An explanation of the results and impact on users.
- 3. Documents and additional supporting evidence (if any): Students may use other supporting documents for consideration. These documents should demonstrate the knowledge applied in developing the roles of participants or sectors related to the innovation project, for example:
 - 3.1 Information of intellectual property
 - 3.2 Information of leveraging work to create added value (entity creation)
 - 3.3 Information of receiving external funding (sponsored research)
 - 3.4 Information of utilization (use & licensing), such as evidence of outcome or social and economic impact assessments aligning with national goals, or impact assessment reports from independent peer reviewer.

Dissemination

Disseminate in one of the following ways:

- 1. Reports of the development of innovation and its utilization, such as:
 - 1.1 Complete research reports or technical reports supported by industry-sponsored activities, including contracts or collaboration agreements demonstrating the utilization of innovative work, new product data (novel data/products), new methods/processes (novel process/procedure), and invention designs."

- 1.2 Impact assessment reports from independent peer reviewers showing the outcomes and impacts resulting from the innovative work.
- 1.3 In case the innovative work cannot be disclosed to the public, there must be evidence explaining the reasons. Additionally, there must be proof of the utilization of the innovative.
- 2. Documents demonstrating the intellectual property of the innovation, such as patents, invention patents, petty patents, and documents showing registration in the Thai Innovation List."
- 3. Dissemination of innovative work through national or international platforms, providing opportunities to present an innovative work to the public.

Quality

Technological Innovations

Characteristics

- 1. It must be an innovation that applies appropriate technology to the context of an organization or a specific area, covering a comprehensive process, starting from studying, analyzing, and synthesizing the problem, to develop and test the prototype in real-life situations, or enhancing standards or quality. The project should demonstrate a Technology Readiness Level (TRL) of 3 or higher, having passed the proof-of-concept stage and having its components or parts have been tested according to international standards, showing potential for practical application.
- 2. Leading to solutions based on user needs, resulting in positive changes and having a positive impact on users or increased economic value. There should be evidence of social and economic impact analysis.

Social Innovation

1. The innovation work should be operated through a complete process, encompassing study, analysis, problem synthesis, social participation, and acceptance. Develop and design the process, test the prototype in real-life situations, and monitor the outcomes, development, standards, or higher quality. Demonstrate the readiness of knowledge and technology in the social domain (Social Readiness Level: SRL) at level 3

or above, through testing and verification. Develop or solve problems in collaboration with relevant stakeholders or verify the solution by testing in pilot areas to confirm the expected impacts. Assess the readiness of knowledge and technology applied according to international standards and show the potential for practical application.

2. Leading to solutions based on user needs, resulting in positive changes and positively impacting users creating higher Economic Value Added (EVA), supported by evidence of social and economic impact analysis.

2.2 Creative work

2.2.1 Creative Work in Science and Technology

Definition

The academic work involves the invention of tools, engines, the creation of new plant or animal breeds, or microorganisms with special properties for specific utility, such as vaccines, products, or other inventions beneficial to the economy and society. These developments are derived from the application of knowledge in science and technology through accepted methods in the respective field of study.

Format

The creative work, along with academic publications or documents, should demonstrate research, investigation, and development concepts, as well as research and development processes. It should include the testing results of various properties, both fundamental and special advantages. Additionally, it should encompass the testing outcomes under suitable conditions for real-world application and the potential impact of its implementation on the economy or society.

Dissemination

Disseminate in one of the following ways:

- 1. Exhibition organization, presentation management, public performances, image recording, sound recording, photography, and video recording.
- 2. Supplementary documents must be published or disseminated electronically.

Quality Characteristics

The work demonstrates creative thinking that utilizing academic knowledge, present clear and credible testing results based on well-defined principles and show the potential for impactful economic or societal outcomes from its application.

2.2.2 Creative Works in the Field of Fine Arts

Definition

A work or set of creative works that demonstrate aesthetic and artistic value. These works should showcase the creator's ability to innovate and must be able to convey concepts derived from philosophy, ethics, and aesthetics, reflecting the values of truth, goodness, and beauty. The explanation should include principles that facilitate the creation of knowledge, understanding, meaning, and value of the work. For example, creative works in literature, performing arts, music, architecture, design, painting, sculpture, printmaking, or other art forms.

Format

A creative work accompanied by an analysis that explains the principles, and/or theoretical concepts, as well as the processes and/or techniques used in creating the work. The analysis should synthesize and demonstrate the knowledge used to further develop the work, presenting new knowledge that is valuable for the advancement of the profession and education. Additionally, it should showcase the value of the work, enabling interpretation and evaluation by its audience.

Dissemination

Publicly disseminated in one or more of the following ways for at least four months, with the dissemination methods as follows:

- The original literature or prototype creative work and accompanying documents must be published in print or disseminated through electronic media.
- 2. Exhibition organization, presentation, public performances, image recording, sound recording, photography, video recording, or performances through electronic media.
- 3. Dissemination resulting from actual usage that has been recognized nationally or internationally, including dissemination from

invitations to lecture or present at academic or professional art conferences abroad. For performing arts, the performance must be part of activities organized by nationally recognized organizations within the professional field in Thailand or internationally. The venues for presenting creative works at the national or international level must be recognized in the professional field and must have continuously hosted related activities as a platform for showcasing works for at least five years.

Quality Characteristics

The work must exhibit creative quality, capable of explaining principles, concepts, processes, and techniques, including analysis, synthesis, and conclusions to effectively communicate with the audience. This demonstrates academic advancement in creative work and the study of that particular art discipline, leading to changes or impacts on individuals or organizations.

2.3 Invention Definition Research and development works and innovations that have been developed may not yet need to be certified for standards or quality. They may be in the testing phase to obtain standard or quality certification or fulfill preliminary requirements for commercial use. Inventions are classified into three categories as follow: 1) Items currently undergoing research and prototype development 2) Items undergoing testing for practical use 3) Items that have been produced and are ready for commercial sale, but have not yet passed standard certification tests **Format** Compiling a document and evidence to demonstrate the role of student applicants, the process of developing invention, and the use of invention for commercial or public benefit, including the results and impacts of the invention, consists of the following components: 1. Documents along with evidence demonstrating the roles and responsibilities of the students.

- 2. Documents along with evidence related to the invention summarizing information that shows the development of the invention in line with the format of the invention.
- 3. Documents along with additional evidence for consideration (if any). Students can use additional documents to support the evaluation, which can demonstrate the knowledge used in developing the roles of the participants or the sections related to the invention, such as,
 - 3.1 Intellectual property data.
 - 3.2 Information of advancing the work/creating value-added (entity creation).
 - 3.3 Information of receiving external funding (sponsored research).
 - 3.4 Information of utilization (use & licensing), such as evidence of evaluating outcomes or socio-economic impacts consistent with national objectives, or reports on impact assessments from peer reviewer.

Dissemination

Disseminate in one of the following ways:

- 1. Reports on the development of inventions and their utilization:
- 1.1 Complete research reports or technical reports supported by the industry sector, including contracts or agreements demonstrating the utilization of inventions. This includes information on novel products, novel methods/processes, and the design of inventions.
- 1.2 Reports on the evaluation outcomes from individual peer reviewer, showing the results and impacts arising from the inventions.
- 1.3 In cases where the inventions cannot be disclosed to the public, there must be evidence explaining the reasons. Additionally, there should be evidence confirming the utilization of the inventions.
- 2. Documents demonstrating the intellectual property of the inventions, such as patents, invention patents, and petty patents.

Quality Characteristics

3. Dissemination of inventions through national or international platforms that provide opportunities to present the inventions to the public.

1. Invention that utilizes appropriate technology within the context of an organization or a specific area. It involves a comprehensive process, starting from research, analysis, problem synthesis, development, and testing of prototype works in real-life situations or development of standards or higher quality. It has undergone concept validation and verification of various components or parts through testing according to international standards. Moreover, it demonstrates the potential for practical application and benefits.

2. This work contributes to problem-solving by addressing the needs of users and leading to positive changes. It fosters improvements and creates added economic value. Evidence of its impact can be found in social and economic impact analyses.

2.4 Software

Definition

It refers to computer programs as defined by copyright law, which are works resulting from research, invention, or the creation of new knowledge that can be clearly explained. This includes software applications that apply fundamental principles for the benefit of analyzing various academic data. These programs must possess one of the following characteristics:

- 1. Projects involving software development: These projects utilize numerical methods or engineering design to directly improve the design process.
- 2. Projects involving modifications and enhancements: These projects focus on modifying and enhancing the original source code to significantly improve system functionality.
- 3. Projects involving efficient data collection and evaluation:

 These projects demonstrate clear improvements in system functionality resulting from the application of information

	technology and software. They must clearly demonstrate how
	the system's performance has improved and provide clear
	indicators or metrics, without simply replacing the old system.
	The results obtained must align with the nature of research and
	development work.
Format	It can be in various formats, including both printed manuals or electronic
	media, which consist of:
	1. Clear and detailed explanations or instructions accompanying the
	work, such as user manuals, explaining the operation principles,
	functionality, and tasks of the software thoroughly and precisely. This
	demonstrates that the work contributes to academic advancement or
	enhances knowledge, providing benefits to the respective field.
	2. The work must undergo verification or provide detailed evidence to
	fully demonstrate its value.
Dissemination	Evidence of the widespread use or application of the software within
	the relevant academic or professional community must be provided,
	demonstrating that it has undergone quality assessment by qualified
	individuals or peer reviewers in the respective field or related fields
	from various institutions.
Quality	The work follows all research processes correctly and appropriately
Characteristics	according to research methodologies, demonstrating academic
	advancement or potential for practical application.