



**Mae Fah Luang University Council Announcement on
Criteria for the Publication of Research by Graduate Students for Graduations,
B.E. 2568 (2025)**

In order to establish criteria for the publication of research by Graduate Students of Mae Fah Luang University for Graduations, in compliance with the Standard Criteria for Graduate Studies Curriculum B.E. 2565 (2022) and the Mae Fah Luang University Regulations on Postgraduate Studies, B.E. 2565 (2022)

By virtue of Section 17 (2) of the Mae Fah Luang University Act B.E. 2541 (1998), together with the resolutions of the Academic Council at Meeting No. 10/2568 on 1 October 2568 (2025) and of the Mae Fah Luang University Council at Meeting No. 10/2568 on 15 October 2568 (2025), the Mae Fah Luang University hereby issues the following announcement:

1. This announcement shall be referred as the **“Mae Fah Luang University Council Announcement on Criteria for the Publication of Research by Graduate Students for Graduations B.E. 2568 (2025).”**

2. This announcement shall apply to graduate students enrolled in programs governed by the Mae Fah Luang University Regulations on Postgraduate Studies B.E. 2565 (2022) and thereafter.

3. For the purposes of this Announcement:

“Article” means a research article.

“International journal” means an international academic journal listed in databases prescribed by the Higher Education Standards Commission, namely: ERIC, MathSciNet, PubMed, Scopus, Web of Science (limited to SCIE, SSCI, and AHCI only), JSTOR, and Project Muse. Such journals may be published in print or electronic format.

“National journal” means an academic journal of quality as prescribed by the Higher Education Standards Commission and recognized within the academic community of the relevant discipline or related disciplines. The journal must have been published continuously and regularly for a period of not less than three (3) years and must employ a peer-review process conducted by at least three (3) external peer reviewers from diverse institutions. Such journals may be published in print or electronic format with a clearly defined and regular publication schedule.

“Presentation of an article at an academic conference” means the presentation of a full research paper (Full Paper) at a national or international academic conference, which has undergone review by qualified peer reviewers and has been published in the conference proceedings, whether in print or electronic format. The proceedings may be published either before or after the conference.

“Patent” means a patent in accordance with the Patent Act.

“Innovation” means a work that is new or significantly improved from existing works, resulting in enhanced standards, efficiency, value, or quality, and which can be practically applied and generate broad impact either commercially or publicly, and which possesses one or more of the following characteristics:

1) Technological innovation works, such as products, services, or processes related to production

2) Social innovation works, such as organizational structuring, management systems, financial management, business, marketing, or other related areas.

“Creative works” comprise creative works in the fields of science and technology or aesthetic arts.

Creative works in science and technology means academic works involving the invention or development of tools, labor-saving devices, the creation of new plant or animal varieties, or microorganisms with special properties for specific applications, vaccines, products, or other inventions beneficial to the economy and society. Such works shall be developed through the application of knowledge in science and technology using methodologies accepted within the relevant discipline.

Creative works in aesthetic arts means works or a body of creative works demonstrating aesthetic and artistic value. Such works must reflect the creator’s creative

capability and be explicable in terms of underlying concepts drawn from philosophy, ethics, and aesthetics, reflecting the values of truth, goodness, and beauty, together with an academic explanation that contributes to the creation of knowledge, understanding, meaning, and value of the work. Examples include creative works in literature, performing arts, music, architecture, design, painting, sculpture, printmaking, or other art forms.

“**Invention**” means research and development outputs and innovations that have been developed but may not yet have undergone certification for standards or quality. Such works may be in a testing phase to obtain standardization, quality certification, or preliminary requirements in preparation for commercial application.

“**Other forms of academic works**” means academic works of other types, as specified in Appendix 1 annexed to this Announcement.

“**External Expert**” means a person who are not the Mae Fah Luang University full-time lecturers or full-time researchers and are qualified with doctoral degree or equivalent and having published at least five (5) academic works in journals indexed in recognized databases in the same or a related field to the dissertation or thesis topic or a person who possesses recognized expertise and extensive professional experience, as approved by the Mae Fah Luang University Council.

4. The criteria for the Publication of Research from a thesis or a part of a thesis of a master’s degree student for degree graduation are as follows.

4.1 master’s degree Plan 1.1 Academic Plan

Thesis or a part of thesis must be published in any of the following forms or methods.

4.1.1 An article is published or accepted by editors or publishers to be published in national or international journals

4.1.2 Patent registration

4.1.3 Works that are recognized as innovation, creative work, invention or other academic works.

4.2 master’s degree Plan 1.2 Academic Plan

Thesis or a part of thesis must be published in any of the following forms or methods.

4.2.1 An article is published or accepted by editors or publishers to be published in national or international journals

4.2.2 An article is presented at a national or international academic conference in which the students must present their research work personally on the date and time specified by the conference organizer. The presentation can be either oral presentation or presentation with a poster.

4.2.3 Patent registration

4.2.4 Works that are recognized as innovation, creative work, invention or other academic works.

5. The criteria for the publication of research from a dissertation or a part of a dissertation of a doctoral degree student for degree graduation are as follows.

5.1 Doctoral Degree Plan 1.1 and Plan 1.2

Dissertation or a part of dissertation must be published in any of the following forms or methods.

5.1.1 At least two (2) articles are published or accepted by editors or publishers to be published in international journals

In cases of Doctoral degree students in the humanities and social sciences Disciplines, students may publish one (1) article in an international journal and one (1) article in a national journal. An exception applies to the Law major: students may publish two (2) articles in national journals accredited by the Thai-Journal Citation Index Centre (TCI Tier 1). The quality of the articles must be reviewed by at least three (3) peer reviewers from diverse institutions.

5.1.2 At least one (1) article is published or accepted by editors or publishers to be published in international journals and at least one (1) innovative work, creative works, or patent.

5.2 Doctoral Degree Plan 2.1 and Plan 2.2

Dissertation or a part of dissertation must be published in any of the following forms or methods.

5.2.1 An article is published or accepted by editors or publishers to be published in international journals

In cases of Doctoral degree students in the humanities and social sciences Disciplines, students may publish an article in a national journal that is accredited by the Thai-Journal Citation Index Centre (TCI Tier 1). The quality of the articles must be reviewed by at least three (3) peer reviewers from diverse institutions.

5.2.2 Patent registration

5.2.3 Innovation or creative works

5.3 The classification of majors of doctoral degree programs shall be in accordance with Appendix 2 annexed to this Announcement.

6. In cases where the work is in the form of innovation, creative work, invention, patent, or other forms of academic works, the work shall be evaluated by at least three (3) external experts in the same or a related field of study. The appointment of the external experts shall be approved, in sequence, by the Curricular Administration Committee, the School's Postgraduate Committee, the Postgraduate Committee, the Academic Council, and the Mae Fah Luang University Council.

The quality evaluation of the work as referred to in the preceding paragraph must receive an evaluation result of Grade B or higher.

7. In cases where compliance with this announcement is not possible, or where actions beyond the provisions of this announcement are necessary, such matters shall fall under the discretion and authority of the Academic Council. The decision of the Academic Council shall be final.

Issued on 16 October B.E. 2568 (2025)

Professor Emeritus Dr. Wanchai Sirichana
Chairman, Mae Fah Luang University Council

**Annex to Mae Fah Luang University Council Announcement on
Criteria for the Publication of Research by Graduate Students for Graduations,
B.E. 2568 (2025)**

Annex 1

1. **Types of academic work include** articles, patents, innovation, creative works, invention, and other forms of academic works.

2. Definition, Format, Publication, and Quality Characteristics of Academic Works

2.1 Article	
Publication	<p><u>1. International Journal</u></p> <p>The international journal must be listed in databases prescribed by the Higher Education Standards Commission, namely: ERIC, MathsciNet, Pubmed, Scopus, Web of Science (only SCIE, SSCI and AHCI databases), JSTOR and Project Muse. The journal may be published in print or electronic format.</p> <p><u>2. National Journal</u></p> <p>The journal must meet the quality as prescribed by the Higher Education Standards Commission and recognized within the academic community of the relevant discipline or related disciplines. The journal must have been published continuously and regularly for a period of not less than three (3) years and must employ a peer-review process conducted by at least three (3) external peer reviewers from diverse institutions.</p> <p>The journal may be published in print or electronic format with a clearly defined and regular publication schedule.</p> <p><u>3. Presentation of an article at an academic conference</u></p> <p>A complete manuscript (Full Paper) must be presented at a national or international conference. The paper must be reviewed by a committee of qualified experts and published in a proceeding conference. The paper may be published either in printed format or as an electronic medium and may be published before or after the conference.</p>

2.1 Article (Cont.)	
Publication (Cont.)	<p>3.1 For national academic conference, the editorial board responsible for preparing the conference report or the conference organizing committee must consist of professors, doctoral-degree holders, or qualified experts whose works are recognized in the relevant field, with at least 25 percent of the members coming from institutions outside the host institution. In addition, the presentation of research papers must undergo evaluation by expert reviewers in the relevant field, and the conference must include research papers submitted by at least 3 external institutions, accounting for no less than 25 percent of all submissions.</p> <p>3.2 For international academic conference, the editorial board responsible for preparing the conference report or the conference organizing committee must consist of professors, doctoral-degree holders, or qualified experts whose works are recognized in the relevant field, with at least 25 percent of the members coming from foreign country.</p>
2.2 Patent	
Definition	Patents in accordance with the Patent Act
Format	<p>The work may be in various formats, either in printed format or as an electronic medium, and shall include:</p> <ol style="list-style-type: none"> 1. An analytical discussion that clearly explains or elucidates the work, demonstrating how it contributes to academic development and advancement, enhances knowledge, or provides benefits to the relevant discipline and in what respects. 2. Verification or evidence presented in sufficient detail to substantiate the value of the work.
Publication	There must be evidence that the patent has been utilized or widely applied within the academic community or relevant professional fields, with documentation demonstrating that it has undergone evaluation by peer reviewers in the respective or related disciplines, who come from a variety of institutions.

2.2 Patent (Cont.)	
Quality Characteristics	<p><u>Level B</u></p> <p>The patent must be a registered patent with verifiable evidence that it has been used as a basis for further research.</p> <p><u>Level A</u></p> <p>The patent must be a registered patent with verifiable evidence that it has been used for commercial purposes at the national level.</p> <p><u>Level A+</u></p> <p>The patent must be a registered patent with verifiable evidence that it has been used at the international level and there is proof that it has been widely used for commercial or public benefit purposes.</p>
2.3 Innovation	
Definition	<p>Innovation work must be new or significantly improved from existing works, resulting in enhanced standards, efficiency, value, or quality, and which can be practically applied and generate broad impact either commercially or publicly, and which possesses one or more of the following characteristics:</p> <p>(1) Technological innovation works, such as products, services, or processes related to production ; or</p> <p>(2) Social innovations works, such as organizational structuring, management systems, financial management, business, marketing, or other related areas.</p>
Format	<p>Innovation work must be prepared in documents and have evidence demonstrating the roles and responsibilities of the student requesting recognition of the work, the process of developing the innovation, the application of the innovation for commercial or public purposes, as well as the outcomes and impacts resulting from the innovation. The documentation shall include the following components:</p> <ol style="list-style-type: none"> 1. Documents and supporting evidence demonstrating the student’s roles and responsibilities. 2. Documents and supporting evidence related to the innovation, summarizing information that demonstrates the development of the

2.3 Innovation Work (Cont.)

Format (Cont.)

work in accordance with the type of innovation, which may be categorized as either a technological innovation or a social innovation, and shall include at least the following aspects:

2.1 Background information on the situation prior to implementation

2.2 Description of the approaches and processes used to solve the problem or to create value in a new dimension, specifying the new approach or method, the means by which greater efficiency or effectiveness is achieved, or the method that enables development suitable to the Thai context, or the method that leads to the development of new products or knowledge in the country through reverse engineering. This shall also include the participation involved in problem identification and resolution, or in creating value in a new dimension.

2.3 Description of the knowledge and expertise employed in solving the problem or creating value.

2.4 Description of the new knowledge generated upon completion of the implementation.

2.5 Description of the implementation process or the utilization of the innovation.

2.6 Description of the outcomes or impacts on the users

3. Documentation and supporting evidence for other considerations (if any). Students may provide additional documents or evidence to support the evaluation, which may demonstrate the knowledge applied in the development process, the roles of participants, or the involvement of relevant sectors in the innovation. Examples include:

3.1 Intellectual Property

3.2 Entity Creation

3.3 Sponsored Research

3.4 Use & Licensing documents such as evidence of the evaluation of economic or social outcomes or impacts in alignment with national goals, or an impact assessment report conducted by an independent evaluator.

2.3 Innovation Work (Cont.)	
Publication	<p>The work must be published in a form that demonstrates it has undergone review by a committee of qualified experts (peer reviewers) who are external individuals from various institutions and are duly recognized.</p> <ol style="list-style-type: none"> 1. Reports on the development of the innovation and its utilization, such as: <ol style="list-style-type: none"> 1 .1 A full research report or technical report supported by industry-sponsored activities, including contracts or collaboration agreements demonstrating the application of the innovation; novel data or products; novel processes or procedures; or invention designs, all of which must be evaluated by qualified experts in the relevant field from various institutions. 1 .2 An impact assessment report prepared by an independent evaluator, demonstrating the outcomes and impacts resulting from the innovation. 1 .3 In cases where the innovation cannot be disclosed to the public, evidence must be provided to justify the nondisclosure, along with documentation confirming the utilization of the innovation. 2. Documentation demonstrating the intellectual property of the innovation, such as patents, invention patents, petty patents, or documents indicating registration in the Thailand Innovation List. 3. Dissemination of the innovation through national or international platforms that allow for public presentation of innovative works. 4 . The diffusion of technology or innovation that is embedded in products, production processes, or services.
Quality Characteristics	<p><u>Technology-based Innovations</u></p> <p><u>Level B</u></p> <ol style="list-style-type: none"> 1. An innovation that applies technology appropriate to the context of a specific organization or locality, conducted through a complete process covering the study, analysis, and synthesis of the problem; development and testing of a prototype in real-world conditions; or the

2.3 Innovation Work (Cont.)

Quality
Characteristics
(Cont.)

improvement of standards or quality. The work must demonstrate a Technology Readiness Level (TRL) of 3 or higher, having passed proof-of-concept evaluation with components or subsystems tested in accordance with international standards, and must show clear potential for practical application.

2. The innovation leads to problem-solving aligned with user needs, resulting in improvements and positive impacts for users, or increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.

Level A

1. Using the same criteria as Level B, the innovation must further demonstrate improvements to existing products or processes, resulting in significantly enhanced quality or efficiency; or improvements in standards or performance; or demonstrate a Technology Readiness Level (TRL) of 5 or higher, where system components have been validated as functional and developed into a full-function prototype capable of demonstration in real environments in accordance with international standards, showing clear potential for practical application.

2. The innovation leads to further development or value addition through commercialization or public utilization, with tangible outcomes, or increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.

Level A+

1. An innovation utilizing advanced technology or integrating multiple disciplines to create new technologies or processes; significantly enhancing the key features of existing products or processes; or generating outcomes that lead to the establishment of new business entities or entity creation (e.g., startups or spin-offs). The innovation demonstrates a Technology Readiness Level (TRL) of 8 or higher, having undergone comprehensive testing and being fully qualified or proven for real-world application in industrial or service sectors in accordance

2.3 Innovation Work (Cont.)

Quality
Characteristics
(Cont.)

with international standards, and showing clear potential for practical application with concrete success.

2. Recognized at the national or international level and applied commercially or publicly on a broad scale; contributes to substantial advancement at the national level; results in new industrial developments leading to high-value production or services; or generates increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.

Social-based Innovations

Level B

1. An innovation conducted through a complete process covering the study, analysis, and synthesis of the problem; engagement and acceptance of the target community; development and design of processes; prototype testing in real conditions; and monitoring and evaluation of outcomes. The innovation demonstrates improved standards or quality, or a Social Readiness Level (SRL) of 3 or higher, having undergone testing of the development or problem-solving approach together with relevant stakeholders, or validated through pilot-area testing to confirm expected impacts. The knowledge and social technology employed must be evaluated according to international standards and show potential for practical application.

2. The innovation leads to problem-solving aligned with user needs, resulting in improvements and positive impacts for users, or increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.

Level A

1. Using the same criteria as Level B, the innovation must be applied at policy, system, or mechanism levels, leading to tangible improvements within organizations, sectoral networks (consortia), or communities. It must demonstrate improved standards or quality, or a Social Readiness Level (SRL) of 5 or higher, where the problem-solving

2.3 Innovation Work (Cont.)

Quality
Characteristics
(Cont.)

approach has been validated and presented to relevant stakeholders, and the results can be adapted to other environments. The process includes refinement of development or problem-solving approaches, and testing in relevant environments involving stakeholders according to international standards, showing potential for practical application.

2. The innovation is adopted as a prototype or transferred to other organizations, networks, or communities, or generates increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.

Level A+

1. Using the same criteria as Level A, the innovation must be implemented at policy, system, or mechanism levels, or lead to the establishment of non-profit entities or social enterprises that drive significant social change (e.g., public-sector innovation, digital social innovation, ecosystem-linking innovation, social economic innovation, shared-economy innovation). The innovation must demonstrate improved standards or quality, or a Social Readiness Level (SRL) of 8 or higher, with a fully developed implementation plan that is accepted and applicable to other environments according to international standards, showing clear potential for practical application.

2. The innovation is expanded widely at the local, provincial, regional, or national level; recognized nationally or internationally; or receives awards in social innovation or related innovation ecosystem fields from nationally or internationally recognized organizations; or generates increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.

2.4 Creative Work	
2.4.1 Creative Work in Science and Technology	
Definition	Academic works involving the invention or development of tools, labor-saving devices, new plant or animal breeds, or microorganisms with special properties for specific applications—such as vaccines, products, or other inventions beneficial to the economy and society—developed through the application of scientific and technological knowledge using methodologies recognized in the respective discipline.
Format	Creative works accompanied by publications or academic documentation demonstrating the conceptual framework for the research and development of the work, the processes undertaken in the research and development, the results of tests on both fundamental and distinctive properties, the results of testing under appropriate real-use conditions, and the potential economic or social impacts arising from its application.
Publication	Published in any form, with evidence demonstrating that it has undergone evaluation by a committee of qualified experts in the relevant or related disciplines (peer reviewers) from various institutions, as follows: <ol style="list-style-type: none"> 1. Exhibitions, displays, performances, public presentations, video recordings, audio recordings, photographs, or videotapes. 2. Accompanying documentation, which must be published in print or disseminated through electronic media.
Quality Characteristics	<p><u>Level B</u></p> <p>Work that demonstrates creativity requiring academic knowledge, supported by clear and reliable discipline-based testing results, and whose application shows potential for moderate economic or social impact.</p> <p><u>Level A</u></p> <p>Work that demonstrates creativity requiring a higher degree of academic knowledge, supported by clear and reliable discipline-based testing results, and whose application shows potential for significant economic or social impact.</p>

2.4.1 Creative Work in Science and Technology (Cont.)	
Quality Characteristics (Cont.)	<p><u>Level A+</u></p> <p>Work that demonstrates creativity requiring advanced academic knowledge, supported by clear and reliable discipline-based testing results, exhibiting outstanding characteristics, and showing strong potential for application or for generating new approaches or forms of utilization that yield high economic or social impact.</p>
2.4.2 Creative Works in Aesthetics and the Arts	
Definition	<p>Creative works or a body of creative works that demonstrate aesthetic and artistic value, showing the creator’s capability for artistic expression. The works must be accompanied by an explanation of the philosophical, ethical, and aesthetic concepts on which they are based, reflecting the values of truth, goodness, and beauty, together with scholarly principles that support the development of knowledge, understanding, meaning, and value within the discipline. Examples include creative works in literature, performing arts, music, architecture, design, painting, sculpture, printmaking, or other artistic fields.</p>
Format	<p>Such creative works must be accompanied by an analytical discussion explaining the principles, disciplinary foundations, and/or theoretical concepts, including the processes and/or techniques used in creating the work. The analysis should demonstrate the creator’s knowledge in developing or advancing the work, the presentation of new knowledge beneficial to the development of the discipline and education, as well as the articulation of artistic value that enables interpretation and critical evaluation by audiences and peers.</p>
Publication	<p>The works must have been publicly disseminated in one or more of the following forms for no fewer than 4 months:</p> <ol style="list-style-type: none"> 1. Original literary or creative works and accompanying documentation that have been published in print or disseminated through electronic media.

2.4.2 Creative Works in Aesthetics and the Arts (Cont.)	
Publication (Cont.)	<p>2. Exhibitions, displays, public performances, video recordings, audio recordings, photographs, videotapes, or presentations through electronic media.</p> <p>3. Dissemination arising from recognized practical use at the national or international level, as well as dissemination resulting from invitations to lecture or present at international conferences or professional forums in the arts. For performing arts, the work must have been presented in events organized by nationally recognized organizations within the relevant professional field in Thailand or internationally. Venues for presenting creative works at the national or international level must be recognized within the profession and must have hosted related artistic activities continuously for no fewer than 5 years.</p>
Quality Characteristics	<p><u>Level B</u></p> <p>A work that demonstrates creative quality, with clear articulation of principles, concepts, processes, and techniques, together with the ability to analyze, synthesize, and conclude in a manner that effectively communicates meaning to its audience. The work must show advancement in the academic and creative aspects of the relevant art discipline and result in change or impact on individuals or organizations.</p> <p><u>Level A</u></p> <p>Using the same criteria as Level B, the work must further serve as an exemplary contribution that provides clear and significant benefit to the academic and creative development of the discipline.</p> <p>1. A work that demonstrates analysis, synthesis, and presentation of findings as new knowledge that is deeper and more advanced than existing studies or creations.</p> <p>2. A work that provides broad academic benefit and generates change or impact on individuals, organizations, communities, or society, or can be widely utilized; or a work that has been patented and cited in other works, gaining recognition at the national or international level.</p>

2.4.2 Creative Works in Aesthetics and the Arts (Cont.)	
Quality Characteristics (Cont.)	<p><u>Level A+</u></p> <p>Using the same criteria as Level A, the work must also contribute new knowledge or introduce new developments in aesthetic and artistic creation.</p> <ol style="list-style-type: none"> 1. A pioneering work of exceptional value, showing profound analysis and synthesis that lead to the creation of new knowledge, resulting in significant advancement, new applications, or new forms of utilization, and generating change or impact on communities or society; or a work that has been patented with evidence of widespread use or application. 2. A work that is widely recognized and cited within the academic or professional community at the international level.
2.5 Invention	
Definition	<p>research and development outputs and innovations that have been developed but may not yet have undergone certification for standards or quality. Such works may be in a testing phase to obtain standardization, quality certification, or preliminary requirements in preparation for commercial application. Inventions are classified into 3 categories:</p> <ol style="list-style-type: none"> 1) Items in the stage of research and prototype development 2) Items undergoing testing for real-world application 3) Items that have been produced and are ready for commercial distribution but have not yet undergone standard certification testing
Format	<p>Prepare documentation and evidence demonstrating the roles and responsibilities of the student submitting the work, the development process of the invention, the application of the invention for commercial or public benefit, as well as the outcomes and impacts resulting from the invention. The documentation shall include the following components:</p> <ol style="list-style-type: none"> 1. Documentation and supporting evidence demonstrating the student's roles and responsibilities.

2.5 Invention (Cont.)

Publication

2. Documentation and supporting evidence related to the invention, summarizing information that demonstrates the development of the work in accordance with the type of invention.

3. Documentation and supporting evidence for other considerations (if any). Students may provide additional documents or evidence to support the evaluation, which may demonstrate the knowledge applied in developing the roles of participants or the involvement of relevant sectors in the invention. Examples include:

3.1 Intellectual Property Information

3.2 Information on further development or value creation (Entity Creation)

3.3 Information on external funding received (Sponsored Research)

3.4 Information on utilization (Use & Licensing), such as evidence of the evaluation of economic or social outcomes or impacts aligned with national goals, or an impact assessment report prepared by an independent evaluator published in a form that demonstrates evaluation by a committee of qualified experts (peer reviewers) from various external institutions who are duly recognized, as follows:

1. Reports on the development of the invention and its utilization, such as:

1 .1 A full research report or technical report supported by industry-sponsored activities, including contracts or collaboration agreements demonstrating the application of the invention; novel data or products; new processes or procedures; or invention designs, all of which must be evaluated by qualified experts in the relevant field from various institutions.

1 .2 An impact assessment report prepared by an independent evaluator, demonstrating the outcomes and impacts resulting from the invention.

2.5 Invention (Cont.)	
Publication (Cont.)	<p>1.3 In cases where the invention cannot be disclosed to the public, evidence must be provided to justify the nondisclosure, along with documentation confirming the utilization of the invention.</p> <p>2. Documentation demonstrating the intellectual property of the invention, such as patents, invention patents, or petty patents.</p> <p>3. Dissemination of the invention through national or international platforms that allow for public presentation of inventive works.</p>
Quality Characteristics	<p><u>Level B</u></p> <p>1. An invention that applies technology appropriate to the context of a specific organization or locality, developed through a complete process covering the study, analysis, and synthesis of the problem; development and testing of a prototype in real-world conditions; or improvements in standards or quality. The invention must have passed the proof-of-concept stage, with components or parts tested according to international standards, and demonstrate clear potential for practical application.</p> <p>2. The invention leads to problem-solving aligned with user needs and results in improvements and positive impacts on users, or increases Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.</p>
Quality Characteristics	<p><u>Level A</u></p> <p>1. Using the same criteria as Level B, the invention must additionally demonstrate improvements to products or processes, resulting in enhanced quality and efficiency, or improvements in standards or performance. The invention must have passed the proof-of-concept stage, with all system components tested and validated as functional, forming a full-function prototype capable of demonstration in real environments in accordance with international standards, and showing clear potential for practical application.</p>

2.5 Invention (Cont.)	
Quality Characteristics (Cont.)	<p>2. The invention leads to further development or value creation through commercialization or public utilization, with observable and tangible outcomes, or increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.</p> <p><u>Level A+</u></p> <p>1. An invention that incorporates advanced technology or integrates multiple disciplines to create new technologies or new processes or significantly enhances key features of existing products or processes. The innovation results in outcomes that enable expansion toward new business creation (Entity Creation), such as establishing startups or spin-offs, or demonstrates improvements in standards or quality. The technology must have undergone complete testing and be fully qualified for real-world application in production and service sectors, or be proven successful according to international standards, and clearly demonstrate its potential for practical use with concrete results.</p> <p>2. The invention is recognized at the national or international level and has been utilized either commercially or for broad public benefit, or has driven significant development and advancement at the national level, or has generated new contributions to industry leading to high-value production or services, or increased Economic Value Added (EVA). Evidence of social and economic impact analysis must be provided.</p>
2.6 Other Academic Works	
2.6.1 Academic Works for Industry	
Definition	Academic works that benefit industries whose value chains are predominantly based within the country, resulting in positive changes that support industrial development or address industrial problems.
Format	Prepare documentation that clearly explains the work, demonstrating how it contributes to industrial development, results in positive changes, and advances academic knowledge, addressing the following aspects:

2.6.1 Academic Works for Industry (Cont.)	
Format	<ul style="list-style-type: none"> ● Information on the problem situation prior to implementation ● Evidence of user involvement and acceptance ● A description of the industrial problem-solving process (Solution Method) ● A description of the knowledge and expertise applied, including the use of relevant industrial technologies ● A description of the new knowledge generated upon completion of the research ● A description of the outcomes or impacts on users, on specific parts of the industry’s value chain, or on the industry as a whole <p>Additionally, provide an explanation of the methods and the quality/effectiveness of incorporating the work into teaching and learning—for example, through textbook development, enhancement of course content, or use as thesis or special project topics for students.</p>
Publication	<p>Published in any form, with evidence demonstrating that it has undergone quality assessment by a committee of qualified experts (peer reviewers) in the relevant or related disciplines from various institutions, as follows:</p> <ol style="list-style-type: none"> 1. Research articles published in academic journals, compilation books of academic articles, or academic conferences with published proceedings. The article must include co-authorship with personnel from industry. If co-authorship is not present, documentation must be provided to confirm industrial utilization of the research, such as a joint research agreement or empirical evidence demonstrating the application of the research results. 2. A complete research report containing content or supporting documentation consistent with the format of academic works for industry, and evaluated by qualified experts in the relevant or related disciplines from various institutions.

2.6.1 Academic Works for Industry (Cont.)	
Publication (Cont.)	<p>3. Documentation of intellectual property arising from the work, such as patents, petty patents, or licensing agreements, accompanied by supporting documents consistent with the format of academic works for industry.</p> <p>4. A complete research report that is not permitted for public disclosure, containing content or supporting documentation consistent with the format of academic works for industry, together with evidence explaining the reasons for nondisclosure, and documentation certifying that the research has been utilized.</p> <p>5. External evaluation reports demonstrating the impact generated by the research or academic activities linked to industry, with accompanying documentation prepared by the proposer in accordance with the format of academic works for industry.</p>
Quality Characteristics	<p><u>Level B</u> Clear data and information are compiled, with problems or needs identified through the participation of the target industrial sector. The work includes analysis or synthesis of knowledge that can address existing problems or enhance understanding of the situation, showing obvious potential to lead to demonstrable positive change or to contribute to the development of the industry.</p> <p><u>Level A</u> Using the same criteria as Level B, the work must additionally be applicable as a model for problem-solving or for understanding situations in a way that results in demonstrable positive change, contributes to the development of other industries, or leads to concrete policy changes at the provincial or national level.</p> <p><u>Level A+</u> Using the same criteria as Level A, the work must have significant and widespread impact on the industrial sector or the academic community, be recognized at the national or international level, or receive awards from internationally recognized organizations.</p>

2.6.1 Academic Works for Industry (Cont.)	
<p>Quality Characteristics (Cont.)</p>	<p>Remarks</p> <p>The evaluation of academic works for industry shall be carried out by a committee of qualified experts responsible for assessing academic outputs, ethics, and academic integrity, using the following guidelines:</p> <ol style="list-style-type: none"> 1. Evaluation based on the documentation and supporting evidence submitted. 2. Evaluation based on other relevant evidence, such as information from industry, interviews with stakeholders, or data from relevant agencies. 3. In addition to evaluating documents and evidence under Items 1 and 2 , the assessment may include on-site verification within the industry. Such verification may be conducted directly by the expert committee or by appointed representatives.
2.6.2 Academic Works for the Development of Teaching and Learning	
<p>Definition</p>	<p>Academic work that may be conducted in the form of a study, experimental research, or research and development, with the aim of promoting desirable learner attributes or addressing learning-related problems. The components of the work shall include clear explanations or supporting evidence covering the following: (1) The learning and teaching problems identified; (2) The concepts, theories, principles, rationales, or instructional beliefs used by the instructor in designing an innovative teaching approach to enhance learner development or resolve the identified problems. Such innovation may take the form of a new instructional model, a novel pedagogical approach, a newly developed or significantly adapted invention, or instructional tools—for example, new lesson designs, new learning activities, new teaching techniques, or new instructional media; and (3) The processes and outcomes of implementing the innovation with learners in real settings, demonstrating its effects on developing desirable learner attributes. Evidence must be provided to show that changes occurred in learners in the intended direction, leading to meaningful learning for both learners and instructors.</p>

2.6.2 Academic Works for the Development of Teaching and Learning (Cont.)	
Format	<ol style="list-style-type: none"> 1. Academic work in the form of a study report or research article; or 2. Outputs from the study, such as lessons, activities, or instructional media, accompanied by an explanation of the development concept and the results of implementation with learners. These may be prepared as printed documents or electronic media.
Publication	<p>Published in any form, with evidence demonstrating that it has undergone quality assessment by a committee of qualified experts (peer reviewers) in the relevant or related disciplines from various institutions, as follows:</p> <ol style="list-style-type: none"> 1. Published as a complete study report that has undergone quality assessment by qualified experts, with evidence of dissemination to academic and professional communities within the relevant discipline and related fields. 2. Published as a research article in an academic journal, which may be disseminated in print or electronic form. 3. Published in an edited volume of academic articles, reviewed and edited by qualified experts in teaching and learning development, and subjected to quality assessment. 4. Published as a research article presented at an academic conference with published proceedings. 5. Published in the form of electronic educational outputs, accompanied by an explanation of the concept behind the development of the instructional innovation, methods of use, and the resulting effects on learners.
Quality Characteristics	<p><u>Level B</u></p> <ol style="list-style-type: none"> 1. The conceptual design of the instructional innovation represents an original creative work, either adapted from existing concepts or developed as a new concept. 2. There is clear evidence showing that the educational work developed has effectively enhanced student learning or fostered desirable learner attributes.

2.6.2 Academic Works for the Development of Teaching and Learning (Cont.)	
Quality Characteristics (Cont.)	<p><u>Level A</u></p> <ol style="list-style-type: none"> 1. Exhibits all characteristics of Level B; and 2. There is clear evidence that the educational work can be effectively applied to other groups of learners. 3. The work has been published in an academic journal related to teaching and learning development that has an impact factor. <p><u>Level A+</u></p> <ol style="list-style-type: none"> 1. Exhibits all characteristics of Level A; and 2. The work has received awards or recognition in teaching and learning development, educational innovation, or invention at the national and/or international level.
2.6.3 Academic Works for Public Policy Development	
Definition	Work resulting from research, or from economic, social, political, governance, environmental, scientific, engineering, or other academic analysis and synthesis that leads to new public policy proposals or conceptual or empirical recommendations regarding public policy or its implementation. Such work is intended for adoption by the government in formulating policies, laws, plans, directives, or other measures to address existing problems or to generate positive outcomes for the public at the national, local, or international level.
Format	Prepared in the form of documentation containing an academic explanation, including analysis and synthesis of economic, social, political, governance, environmental, or other issues requiring resolution, supported by evidence, rationale, and data in accordance with academic principles. The outputs may include policies, draft legislation, draft regulations, plans, directives, or other measures. The work shall also provide projections of expected outcomes and impacts on society at the local, national, or international level.
Publication	Published in any form, with evidence demonstrating that it has undergone quality assessment by a committee of qualified experts (peer reviewers) in the relevant or related disciplines from various institutions, as follows:

2.6.3 Academic Works for Public Policy Development (Cont.)	
Publication (Cont.)	<p>1. The policy, law, plan, directive, or other measure has been presented, together with an explanation, to relevant stakeholders and officials responsible for that public policy and has been taken under consideration or acted upon by the appropriate authorities.</p> <p>2. The public policy has been disseminated to relevant parties.</p>
Quality Characteristics	<p><u>Level B</u> A work that demonstrates analysis and synthesis with evidence or rational justification, reflection academic advancement.</p> <p><u>Level A</u> Using the same criteria as Level B, but the proposal must introduce new recommendations that address problems or promote development more comprehensively than previous proposals. The work must include high-quality drafts—such as draft laws, draft policies, draft plans, etc.—that are referenced or cited by relevant stakeholders.</p> <p><u>Level A+</u> Using the same criteria as Level A, and the work must also have been widely referenced or discussed in society, or adopted by public policy authorities, resulting in demonstrable benefits.</p>
2.6.4 Case Study	
Definition	<p>A written work derived from the study of individuals or institutions (such as government agencies, private organizations, or governmental bodies), or from the study of real events, management practices, cases, or incidents, developed into a teaching case study. The work involves the collection and academic analysis of information to examine the causes of problems and other relevant factors, which support decision-making and the formulation of alternative solutions based on academic principles. It may also present recommendations for organizational development, enhance understanding of individual or organizational behavior to stimulate learners’ analytical reasoning and academic decision-making, or provide analysis of facts and the exercise of judgment in real cases.</p>

2.6.4 Case Study (Cont.)	
Format	A published document or electronic publication containing all essential components: an introduction, main content, and a conclusion.
Publication	Published in print or electronic form in books or case study collections that are edited and quality-assessed by a committee of qualified experts. Evidence must be provided demonstrating that the work has undergone quality evaluation by peer reviewers in the relevant or related disciplines from various institutions.
Quality Characteristics	<p><u>Level B</u></p> <ol style="list-style-type: none"> 1. A case study with complete components, including an introduction, main content, and a conclusion, along with detailed quantitative and qualitative data such as tables and figures. 2. A case study with clear content and presentation that is useful for teaching and learning at the higher education level. <p><u>Level A</u></p> <p>Using the same criteria as Level B, and the case study must also present content and analysis that keep pace with academic advancements, offering broad academic benefits or being widely applicable.</p> <p><u>Level A+</u></p> <p>Using the same criteria as Level A, and the case study must also:</p> <ol style="list-style-type: none"> 1. Be pioneering in the academic field, presenting issues or topics that have not previously been studied, demonstrating deep synthesis of information, and generating new knowledge that leads to clear academic advancement. 2. Stimulate further thinking and inquiry in the relevant academic field or profession at the national or international level.
2.6.5 Translated Work	
Definition	A translated work derived from an original literary or scholarly work that is significant and of substantial value within its field. When translated, the work must demonstrably contribute to academic advancement. The translation may be from a foreign language into Thai, from Thai into a foreign language, or from one foreign language into another.

2.6.5 Translated Work (Cont.)	
Format	A translated work accompanied by analytical commentary or scholarly exposition demonstrating how the work contributes to academic development and advancement, enhances knowledge, or benefits the discipline in specific ways.
Publication	<p>Published in any form, with evidence demonstrating that it has undergone quality assessment by a committee of qualified experts (peer reviewers) in the relevant or related disciplines from various institutions, as follows:</p> <ol style="list-style-type: none"> 1. Dissemination through printed publication 2. Dissemination through other electronic media such as CD-ROMs etc.
Quality Characteristics	<p><u>Level B</u></p> <p>A translation that accurately and completely conveys the content of the original work, accompanied by a translator’s introduction providing sufficient information about the translated document.</p> <p><u>Level A</u></p> <p>Using the same criteria as Level B, and the translation must employ eloquent, polished, and easily comprehensible language.</p> <p><u>Level A+</u></p> <p>Using the same criteria as Level A, and the work must also include an analytical introduction demonstrating the translator’s knowledge and understanding of the subject matter and its related areas or incorporate additional research by the translator in the introduction or in footnotes, as appropriate.</p> <p>For disciplines in the Social Sciences and Humanities, the following quality criteria shall apply:</p> <p><u>Level B</u></p> <p>A translated work that demonstrates an understanding of the original text, its conceptual frameworks, or its cultural origins, and indicates strong ability to convey meaning accurately. The work includes study, analysis, and interpretation of both the text and its context at a level comparable to academic research, with appropriate scholarly annotations or commentary provided at both micro and macro levels.</p>

2.6.5 Translated Work (Cont.)	
Quality Characteristics (Cont.)	<p><u>Level A</u></p> <p>A translated work that demonstrates profound understanding of the original text, its conceptual frameworks, or its cultural origins, and indicates a very high level of competence in meaning transfer. The work contains detailed and in-depth study, analysis, and interpretation of both the text and its context, comparable to research conducted by specialists in the field, and includes appropriate scholarly annotations or commentary at both micro and macro levels.</p> <p><u>Level A+</u></p> <p>A translated work that provides conclusions regarding translation methodology and translation theory, using the same criteria as Level A, with the following additional requirements:</p> <ol style="list-style-type: none"> 1. The translation is based on an original work of such significance that it has influenced academic development or transformation. 2. The translation is of a quality that may be regarded as exemplary or authoritative. 3. The work provides pioneering conclusions on translation methodology and translation theory that constitute a significant academic contribution.
2.6.6 Dictionary, Encyclopedia, Directory and other similar academic works	
Definition	<p>A reference work that explains and provides information on terms, topics, or sub-units in various forms, resulting from systematic and academically grounded research, and presenting the state-of-the-art knowledge in the relevant discipline. It consists of a compiled and organized set of terms, topics, or sub-units, produced by a single scholar. The work includes a preface explaining the principles, academic foundations, or theories applied, as well as instructions for use. It also contains a comprehensive bibliography or sectioned bibliographies according to the sub-units and an index when necessary.</p>

2.6.6 Dictionary, Encyclopedia, Directory and other similar academic works (Cont.)	
Format	Accompanied by analytical commentary or scholarly exposition demonstrating how the work contributes to academic development and advancement, enhances knowledge, or benefits the discipline in specific ways.
Publication	Published in any form, with evidence demonstrating that it has undergone quality assessment by a committee of qualified experts (peer reviewers) in the relevant or related disciplines from various institutions, as follows: <ol style="list-style-type: none"> 1. Dissemination through printed publication, or 2. Dissemination through electronic media
Quality Characteristics	<p><u>Level B</u></p> <p>A reference work that provides accurate and up-to-date foundational knowledge, covering a broad scope of content as recognized within the academic community.</p> <p><u>Level A</u></p> <p>Using the same criteria as Level B and additionally providing information and perspectives that illustrate the development or evolution of the terms, topics, sub-units, and/or the discipline itself.</p> <p><u>Level A+</u></p> <p>Using the same criteria as Level A and further offering guidance that stimulates critical thinking and/or encourages readers or users to pursue further inquiry and research.</p>
2.6.7 Software	
Definition	Refers to computer programs as defined under copyright law, which are works resulting from research, invention, or the creation of new knowledge grounded in academic principles that can be clearly explained. This also includes software developed through the application of academic principles for scholarly data analysis. The work must possess at least one of the following characteristics: <ol style="list-style-type: none"> 1. A project involving software development using numerical methods or an engineering design process that directly improves design procedures.

2.6.7 Software (Cont.)	
Definition (Cont.)	<p>2 . Work involving modification, alteration, or development at the source-code level to enhance system functionality, with significant system improvements.</p> <p>3. A project involving performance data collection and evaluation consistent with research and technological development activities, clearly demonstrating how the system has improved after the application of information technology and software. Such work must include system enhancements or needs assessments, as well as clear outcomes or indicators, and must not merely replace an existing system.</p> <p>The results must be consistent with the nature of research and development work.</p>
Format	<p>The work may be prepared in various formats, either as a printed document or as electronic media, and shall include the following components:</p> <p>1. A clear explanation accompanying the work, such as a manual providing detailed and explicit descriptions of the software’s usage, underlying principles, operational methods, and functionalities. This explanation must demonstrate how the work contributes to academic development and advancement, enhances knowledge, or benefits the relevant discipline in specific ways.</p> <p>2. Evidence showing that the work has been verified or validated, with complete and detailed documentation demonstrating its value.</p>
Publication	<p>There must be evidence demonstrating that the software has been widely utilized or applied within the relevant academic or professional community, together with documentation showing that it has undergone quality assessment by a committee of qualified experts (peer reviewers) in the relevant or related disciplines from various institutions.</p>

2.6.7 Software (Cont.)	
Quality Characteristics	<p><u>Level B</u></p> <p>A work that demonstrates proper and appropriate implementation of all research procedures in accordance with research methodology, showing academic advancement or potential for practical application.</p> <p><u>Level A</u></p> <p>Using the same criteria as Level B, and additionally:</p> <ol style="list-style-type: none"> 1. The work presents analysis and findings that constitute deeper or more substantial new knowledge compared with prior studies. 2. The work provides broad academic benefits or can be widely applied in practice. <p><u>Level A+</u></p> <p>Using the same criteria as Level A, and the work must also have been widely cited and utilized within the relevant academic or professional community at the national level.</p>
2.6.8 Academic contributions to local and social engagement	
Definition	<p>A work that benefits society or local communities, produced through the application of expertise in at least one academic discipline, and yielding tangible, assessable outcomes that are evident to the public. Such community and socially beneficial work must result in positive changes in one or more areas, including community development, lifestyle, education, arts and culture, environment, occupations and economy, governance, quality of life, or health. The work may also be one that leads to the registration of a patent or other form of intellectual property, with demonstrable evidence that it can be used to solve problems or foster social development and generate clear benefits. It may additionally include work that brings about changes in community awareness or understanding of problems and potential solutions. Commercial profit-seeking activities or works resulting in personal financial gain are not included.</p>

2.6.8 Academic contributions to local and social engagement (Cont.)

Format	<p>The work shall be documented with clear explanations, and the content of the documentation shall demonstrate at least the following components:</p> <ol style="list-style-type: none">1. Participation and acceptance by the local community and target society2. The conditions of the local community and society prior to the changes that occurred3. The processes through which positive changes were brought about in the local community and society4. The knowledge or expertise applied to bring about such changes5. Projections of the expected consequences following the changes6. An evaluation of the outcomes resulting from the changes attributable to the applicant’s disciplinary knowledge or expertise7. A plan for monitoring and sustaining the developments achieved <p>The documentation must clearly demonstrate the participation and acceptance of the target groups or local community. In addition to the required documentation, supplementary evidence related to the work may also be provided, such as photographs, video recordings, films, or audio recordings.</p> <p>For development or problem-solving initiatives that integrate multiple academic disciplines, an application for an academic position under the category of community and social engagement may be based on the collective achievements of all involved disciplines. The applicant must demonstrate expertise in applying their disciplinary knowledge to collaboratively develop or resolve problems, resulting in clearly observable changes within the community.</p>
Publication	<p>The dissemination of academic works for community and social engagement may be carried out through local presentation forums or site visits, and must be made widely accessible to the public in a form appropriate to the nature of the work. Such dissemination shall be documented or recorded in a written format that can be cited or used</p>

2.6.8 Academic contributions to local and social engagement (Cont.)	
Publication (Cont.)	for further study. Evidence must be provided demonstrating that the work has undergone quality assessment by qualified experts in the relevant or related disciplines (peer reviewers) from various institutions.
Quality Characteristics	<p><u>Level B</u></p> <p>The work must demonstrate the applicant’s expertise in their discipline, with clear documentation of data and information collection processes. The work must identify problems or needs arising from the participation of the target community and present analysis or synthesis of knowledge that can address the identified issues or enhance understanding of the situation. The work must show evidence of positive, demonstrable change or contribute to the development of the community, locality, or society.</p> <p><u>Level A</u></p> <p>Using the same criteria as Level B, and the work must additionally be of a quality that can serve as a model for other communities or societies, or lead to policy change or adoption as a concrete policy at the provincial or national level.</p> <p><u>Level A+</u></p> <p>Using the same criteria as Level A, and the work must also have a broad impact on society or the academic community, be recognized nationally or internationally, or have received an award from an internationally recognized organization.</p>

Annex 2

Classification of Academic Disciplines for Doctoral Degree Programs

1. Group of Science and Technology Disciplines:
 - 1.1 School of Science
 - 1.2 School of Applied Digital Technology
 - 1.3 School of Agro-Industry
 - 1.4 School of Cosmetic Science
2. Group of Health Science Disciplines:
 - 2.1 School of Health Science
 - 2.2 School of Anti-Aging and Regenerative Medicine
 - 2.3 School of Integrative Medicine
 - 2.4 School of Medicine
 - 2.5 School of Dentistry
 - 2.6 School of Nursing
3. Group of Humanities and Social Sciences Disciplines:
 - 3.1 School of Liberal Arts
 - 3.2 School of Management
 - 3.3 School of Law
 - 3.4 School of Social Innovation
 - 3.5 School of Sinology