

Hefei Institutes of Physical Science, Chinese Academy of Sciences

HFIPS Research [2021] No. 2

Circular Concerning the Issuance of the Criteria for Award of Postgraduate Degrees by Science Island of the Graduate School of University of Science and Technology of China

To all scientific research units and departments:

For the purpose of improving the quality of postgraduate training in our institute and developing future industry leaders with integrity and ability, a persistent spirit of innovation and entrepreneurial potential, the Criteria for

Award of Postgraduate Degrees by Science Island of the Graduate School of USTC, hereby released, is formulated upon review and decision by the Degree Sub-Committee of Science Island on Nov. 17, 2020, according to the Guidance of USTC on Recognizing Innovative Achievements of Postgraduates for Degree Application (Xiaoxueweizi [2020] No. 93), and the USTC Criteria for Award of Postgraduate Degrees and Implementing Rules for Award of Professional Postgraduate Degrees (Xiaoxueweizi [2020] No. 174), taking into consideration the training characteristics of the postgraduates of our institute.

It is hereby notified that this Criteria shall be implemented with effect from June 1, 2021, and the training program and criteria for award of degree formulated in 2018 shall be officially abolished on May 31, 2023.

Hefei Institute of Physical Science

March 11, 2021

(This document is publicly available.)

Science Island of the Graduate School of USTC

Criteria for Award of Postgraduate Degrees

Science Island

March 2021

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Part I: Requirements for Postgraduate Academic Achievements

1. The academic papers and achievements of postgraduates in the program duration shall have two publishing institutions as follows:

According to the requirements of the Administrative Measures for the Use of the Logo of Hefei Institute of Physical Science, Chinese Academy of Sciences (HFIPS Administration [2020] No. 7), the HFIPS employees and postgraduates shall standardize the use of the Chinese and English names of HFIPS when publishing scientific papers from May 12, 2020. The Chinese paper shall use the name of “中国科学院合肥物质科学研究院” (Hefei Institutes of Physical Science, Chinese Academy of Sciences) and add the name of the research department. The English paper shall use the name “Hefei Institutes of Physical Science, Chinese Academy of Sciences”, and “Hefei Institutes of Physical Science” can be replaced by the abbreviation “HFIPS”.

Affiliation rules for the publication of an academic achievement by a HFIPS postgraduate as the first author (or the second author with the Supervisor as the first author) (an academic paper or research achievement published by a postgraduate shall have HFIPS and USTC as the publishing institutes):

(1) The Chinese format and order of the affiliated institutes of the first author are as follows:

1: Hefei Institutes of Physical Science, Chinese Academy of Sciences, Hefei 230031, China;

Or

Hefei Institutes of Physical Science, Chinese Academy of Sciences and name of affiliated research institute, Hefei 230031, China;

2: University of Science and Technology of China, Hefei 230026, China

Or

Science Island, University of Science and Technology of China, Hefei 230026, China

(2) The English format and order of the affiliated institutes of the first author are as follows:

1: Hefei Institutes of Physical Science, Chinese Academy of Sciences, Hefei 230031, China/P. R. China;

or

xx Institute of xx, Hefei Institutes of Physical Science, Chinese Academy of Sciences, Hefei 230031, China/P. R. China;

2: University of Science and Technology of China, Hefei 230026, China/P. R. China

or

Science Island Branch, Graduate School of USTC, Hefei 230026, China/P. R. China

2. The research academic papers of a master's degree or doctoral candidate published in or accepted

by a scientific journal as the first author or the co-first author, which must be the central results of his/her theses, shall exclude review articles.

3. The Tier 1 and Tier 2 rankings of academic papers shall refer to the journal ranking system of the National Science Library, CAS (**Note: the rankings at the year of publication shall prevail**).

4. The research achievement with the Supervisor as the first contributor and the postgraduate as the second contributor may be used for degree application. However, a degree candidate shall be the first author of at least one academic paper (with the Supervisor as one of the authors).

5. A research paper with co-first-authorship can only be used by the first or second co-first author for degree application, and the applicant must provide an official written statement that he/she has obtained permission from the other co-first authors who have waived the right to use the said paper for degree application and the written consent from all the corresponding authors. A research paper published in a Tier 1 journal by a postgraduate who is the second co-first author is regarded as one research paper published in a Tier 2 journal [as the first author]; a research paper published in a Tier 2 journal by the second co-first author is regarded as one research paper published in a scientific journal [as the first author]; and a research paper published in other journals by a postgraduate who is the second author will not be recognized.

6. No more than one research paper by a postgraduate who is the second co-first author may be used for degree application, and the Supervisor shall state in writing the contributions of all co-first authors.

7. An invention patent shall have HFIPS as the only affiliation, with the Supervisor as the first inventor and the degree candidate as the second inventor. An applicant who holds an invention patent as the first inventor or is an awardee (one of the first five contributors) of a second class Provincial-level or Ministerial-level Science and Technology Award or higher is regarded as having published one research paper. Only one conversion is allowed.

8. Having completed an engineering or R&D project, a sub-project of a key engineering or R&D project, or a technological transfer with significant economic or social benefits as the first contributor is equivalent to one research paper published in a scientific journal, which is approved by the USTC Degree Sub-Committee (hereinafter referred to as “the Degree Sub-Committee”) of Science Island after reviewing the summary report. Only one conversion is allowed.

9. The scientific journals include those indexed by SCI and EI as well as other journals recognized by the Degree Sub-Committee. Supplements are excluded.

10. The international conference paper used for doctoral degree application must be EI-retrievable. The international conference paper used for master’s degree application must be collected in conference proceedings with an ISBN number.

11. A postgraduate may not make any change to the order of the authors and institution of any paper or other research achievement used for degree application. Should this occur, the consequences will be dire, including revocation of degree.

12. If an academic paper used for degree application is retracted, thus affecting the degree

application, the consequences will be dire, including revocation of degree.

13. The achievements used for degree application must be related to the thesis or dissertation.

14. Other research achievements in the form of non-academic papers such as academic monographs, research achievement reports, standards and specifications and scientific research awards require a three-month advance application, and shall undergo strict peer review. Such achievements shall be approved by at least 3/4 of the professors (no less than five in total) of the program unit and at least 3/4 of the members of the Degree Sub-Committee to determine whether the candidate meets the scientific research requirements for degree application.

15. Situations not addressed in the aforesaid provisions shall be discussed and decided by the Degree Sub-Committee.

Part II: Criteria for Award of Postgraduate Degrees in Science

I. Criteria for Award of Postgraduate Degrees in Physics

(I) Main Research Areas

1. Plasma physics (070204)
2. Condensed matter physics (070205)
3. Optics (070207)

(II) Requirements for Scientific Research Achievements of Doctoral Candidates

1. A doctoral candidate shall meet one of the following prerequisites prior to applying for a doctoral degree:

(1) The candidate, as the first author, has at least two academic papers related to the dissertation published in or accepted by a high-level authoritative foreign or domestic journal, and at least one paper in an English journal.

(2) The candidate, as the first author, has at least one academic paper related to the dissertation published in an authoritative foreign or domestic journal such as Science (or its sub-journals), Nature (or its sub-journals), Proceedings of the National Academy of Sciences of the United States of America, Physical Review Letters, Physical Review X, The Astrophysical Journal Supplement and National Science Review (to be discussed separately by the Degree Sub-Committee of the Department).

2. Any of the following scientific research achievements of a doctoral candidate is equivalent to one paper published in a high-level foreign or domestic journal:

(1) An academic paper related to the dissertation published in any SCI or EI journal;

(2) An academic paper related to the dissertation published in an authoritative international journal such as Science (or its sub-journals), Nature (or its sub-journals), Proceedings of the National Academy of Sciences of the United States of America, Physical Review Letters, Physical Review X and The Astrophysical Journal Supplement with him or her as the second co-first author, and approved by the Supervisor with a written report stating the contributions of the candidate to the paper;

(3) The candidate shall have participated in a major national scientific mission or project, made important scientific or technical contributions and prepared the work report recognized by the competent authority (or the chief scientist or head of the expert group);

(4) The candidate shall have participated in a large internal collaboration team and prepared the internal work report (Note) as Primary Author;

(5) A doctoral candidate engaged in high-tech research shall have a conference paper collected in any SCI or EI proceedings as the first author;

(6) A national scientific research achievement award (ranked among the top five) or a provincial or ministerial-level scientific research achievement award (ranked among the top three); or

(7) An invention patent granted.

3. In other special cases, the Supervisor shall submit a written application and present the reasons at the meeting of the Degree Sub-Committee of the Department (quorum of at least two-thirds of the subcommittee members) where a vote by secret ballot shall be conducted. Only if at least two-thirds of the members present vote in favor can the candidate be deemed to have met the graduation requirements for a doctoral degree. A report shall be submitted to the USTC Degree Committee for approval.

(III) Requirements for Scientific Research Achievements of Master's Degree Candidates

1. A master's degree candidate is eligible to apply for a master's degree upon meeting one of the following prerequisites:

2. The candidate, as the first author (excluding the Supervisor), has at least one academic paper related to the thesis published in or accepted by a high-level foreign or domestic journal or an authoritative domestic journal (see Annex).

3. Any of the following scientific research achievements is equivalent to one paper published in a high-level foreign or domestic top-class journal:

(1) Published an academic paper related to the thesis in any SCI or EI journal;

(2) Won a provincial or ministerial-level scientific research achievement award (ranked among the top three); or

(3) Having an invention patent granted with the patent application having been officially disclosed or the patent certificate issued.

4. In other special cases, the Supervisor shall submit a written application, and a vote by secret ballot carried out at the Degree Sub-committee of the Department meeting (a quorum of at least two-thirds of the subcommittee members). Only if at least two-thirds of the members present are in favor can the candidate be deemed to have met the graduation requirements for a master's degree.

(IV) List of Academic Journals Recognized by the Degree Sub-Committee of the Department

1. List of Academic Journals Recognized by the Degree Sub-Committee of the Physics Department

S/N	Journal	Journal No.	Organizer
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2. List of Academic Journals Recognized by the Degree Sub-Committee of Science Island

Domestic Journals			
S/N	Journal	Journal No.	Organizer

Foreign Journals			
S/N	Journal	Journal No. ISSN	Organizer

II. Criteria for Award of Postgraduate Degrees in Chemistry and Materials

(I) Main Research Area

1. Materials physics and chemistry (080501)

(II) Requirements for Scientific Research Achievements of Doctoral Candidates

1. Prior to applying for a doctoral degree, a candidate, as the first author, shall have at least two research papers related to the dissertation published in or accepted in the academic journals (see Annex 2) recognized by the Degree Sub-Committee of the Department, with at least one published in a high-level journal recognized by the Degree Sub-Committee of the Department (see Annex 1).
2. One research academic paper related to the dissertation published by the candidate as the first author in Science, Nature or their sub-journals, PNAS, PRL, JACS, Angew. Chem. Int. Ed. or Adv. Mater., is equivalent to meeting the requirements of 1.
3. One research paper related to the dissertation published by the candidate as the second co-first author in Science, Nature or their sub-journals, PNAS, PRL, JACS, Angew. Chem. Int. Ed. or Adv. Mater., is equivalent to one paper published in an academic journal.
4. The candidate has won a national scientific research achievement award (ranked among the top five) or a provincial or ministerial-level scientific research achievement award (ranked among the top three) is equivalent to one paper published in an academic journal.
5. Papers published by a candidate in journal supplements are generally not recognized.

(III) Requirements for Scientific Research Achievements of Master's Degree Candidates

1. Prior to applying for a master's degree, a candidate, as the first or second author (the Supervisor as the first author), shall have at least one research paper related to the dissertation published in or accepted by an academic journal (see Annex 2) recognized by the Degree Sub-Committee of the Department, excluding any paper with the candidate as the second or subsequent co-first author is not recognized
2. The candidate has won a national scientific research achievement award (ranked among the top five) or a provincial or ministerial-level scientific research achievement award (ranked among the top three) is equivalent to one paper published in an academic journal recognized by the Degree Sub-Committee of the Department (see Annex 2).
3. A candidate who has an invention patent has been granted to him/her with the patent application having been officially disclosed or the patent certificate issued is equivalent to having one paper published in an academic journal recognized by the Degree Sub-Committee of the Department (see

Annex 2).

(IV) List of Academic Journals Recognized by the Degree Sub-Committee of the Department

1. List of High-level Academic Journals Recognized by the Degree Sub-Committee

(1) List of high-level Academic Journals Recognized by the Degree Sub-committee of the Chemistry and Materials Science Department

S/N	Journal	Journal No.	Organizer
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(2) List of High-level Academic Journals Recognized by the Degree Sub-Committee of Science Island

S/N	Journal	Journal No.	Organizer
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2. List of Academic Journals Recognized by the Degree Sub-Committee

(1) List of Academic Journals Recognized by the Degree Sub-Committee of the Chemistry and Materials Science Department

S/N	Journal	Journal No.	Organizer	Remarks
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(2) List of Academic Journals Recognized by the Degree Sub-Committee of Science Island

S/N	Journal	Journal No.	Organizer
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III. Criteria for Award of Postgraduate Degrees in Geoscience and Environmental Science

(I) Main Research Area

1. Environmental science and engineering (0830)

(II) Requirements for Scientific Research Achievements of Doctoral Candidates

A doctoral candidate is eligible to apply for a doctoral degree upon meeting one of the following prerequisites and passing the internal assessment of the pre-qualification assessment committee of the relevant academic discipline¹:

(1) The dissertation has been approved in writing by at least 5 high-level international peers, and meets the doctoral dissertation standards of world-class universities;

(2) At least one research paper related to the dissertation published in or accepted by a Tier 1 journal,

¹ The Supervisor and the doctoral program unit shall be jointly responsible for inviting at least 3 professors (or associate professors for master's degree candidate) of the academic discipline for each candidate to form a pre-qualification assessment committee and reporting to the Degree Sub-Committee of the Department for filing purposes. The pre-qualification assessment committee shall assess whether the candidate has been trained comprehensively and systematically, and whether the dissertation meets qualification, as well as to issue the pre-qualification assessment result.

or at least two research papers related to the dissertation published in or accepted by a Tier 2 journal², including at least one with the candidate as the first author in an English language journal, and the rest with the candidate as the first author excluding the Supervisor³;

(3) Granted at least one invention patent related to the dissertation, and have one research paper related to the dissertation as the first author published in or accepted by a Tier 2 English language journal;

(4) If the candidate has made major achievements or special contributions related to the dissertation in during the doctoral program, the Supervisor may submit a written application to the Degree Sub-Committee of the Department, and at least 3 well-known domestic or foreign experts in the relevant field may issue a letter of recommendation to prove the contributions of such achievements related to the dissertation. The Degree Sub-Committee of the Department may discuss and decide by a vote whether the candidate is qualified to apply for a doctoral degree.

(III) Requirements for Scientific Research Achievements of Master's Degree Candidates

An M Sc. candidate is eligible to apply for a master's degree upon passing the internal assessment of the pre-qualification assessment committee of the relevant academic discipline and his/her master's thesis has been anonymously approved.

Supplementary List of Tier 1 Journals

S/N	Journal	Journal No.	Organizer
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Supplementary List of Tier 2 Journals

S/N	Journal	Journal No.	Organizer
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IV. Criteria for Award of Postgraduate Degrees in Life Science and Medicine

(I) Main Research Area

1. Biophysics (071011)

(II) Requirements for Scientific Research Achievements of Postgraduate Candidates

² SCI journals that have been ranked in JCR Zone Q2 or higher over the past five years are categorized as Tier 1 journals by default, and SCI journals that have been ranked in JCR Zone Q3 are categorized as Tier 2 journals. For other Tiers 1 and 2 journals, please refer to the attached list of journals.

³ The co-first authors share the relevant research paper equally, and 0.5 of the research paper published in a Tier 1 journal is counted as 1 paper in a Tier 2 journal.

The thesis or dissertation is the main academic achievement for degree application and the main basis of evaluation. The research achievements presented in a doctoral dissertation should be innovative and at a high academic level in the discipline. The research achievements presented in a master's thesis should be advanced and of good academic level in the discipline. A postgraduate may present innovative achievements in the form of academic journal papers, invention patents, research reports, scientific research awards or others that could constitute an important reference for thesis or dissertation evaluation.

1. A doctoral candidate is eligible to apply for a doctoral degree if he/she has obtained one of the following relevant academic achievements:

(1) The academic achievements presented in the dissertation are innovative and at a high academic level, and the candidate, as an independent first author, shall have a research paper related to the dissertation published in or accepted by a journal recognized by the Degree Sub-Committee of the Department;

(2) The academic achievements presented in the dissertation shall be significantly innovative and at a high academic level, and the candidate, as the co-first author (or in the case of co-first authors, only the first two co-first authors are counted), shall have an academic paper related to the dissertation published in or accepted by a high-level journal recognized by the Degree Sub-Committee of the Department;

(3) The candidate has won a national scientific research achievement award (ranked among the top five) or a provincial or ministerial-level scientific research achievement award (ranked among the top three) for the research achievements presented in the dissertation, and the achievements have been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a doctoral degree;

(4) The candidate has obtained one invention patent related to the dissertation, with the Supervisor as the first inventor and the candidate as the second inventor, and the patent has made practical contributions to solving key technical problems in production practice and been transformed or industrialized and applied (the amount received is not less than RMB 500,000). The achievements have been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a doctoral degree;

(5) The research achievements presented in the dissertation have made important progress in or contributions to advancing key technologies and solving major problems, and have been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a doctoral degree.

2. A master's degree candidate is eligible to apply for a master's degree only if one of the following prerequisites is met:

(1) The research achievements presented in the thesis are advanced and at a good academic level, and the candidate, as the first author, has an academic paper related to the thesis published in or accepted by an important academic journal (generally a Chinese core journal or higher) at home or abroad. The paper has been determined by the Degree Sub-Committee of the Department to have met the

requirements for award of a master's degree;

(2) The research achievements presented in the thesis are innovative and at a high academic level, and the candidate, as the co-first author (or in the case of co-first authors, only the first two co-first authors are counted), shall have an academic paper related to the thesis published in or accepted by an academic journal recognized by the Degree Sub-Committee of the Department. The paper has been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a master's degree;

(3) The candidate has won a national scientific research achievement award or a provincial or ministerial-level scientific research achievement award (ranked among the top five) for the academic achievements presented in the thesis, and the achievements have been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a master's degree;

(4) The candidate has one invention patent related to the thesis for which the application is officially disclosed, with the Supervisor as the first inventor and the candidate as the second inventor. The achievements have been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a master's degree;

(5) The research achievements presented in the thesis have made progress in or contributions to advancing key technologies and solving major problems, and have been determined by the Degree Sub-Committee of the Department to have met the requirements for award of a master's degree;

(6) The thesis has been determined by the Degree Sub-Committee of the Department based on blind peer review to have met the requirements for award of a master's degree.

V. Criteria for Award of Postgraduate Degrees in Mechanics and Engineering

(I) Main Research Areas

1. Refrigeration and low-temperature engineering (080705)
2. Precision instruments and machinery (080401)

(II) Requirements for Doctoral Candidates Applying for International Academic Exchange

A doctoral candidate applying for a doctoral degree shall meet one of the following prerequisites for international academic exchange:

1. Attended at least one international academic conference, and exchanged his/her paper in the form of an oral paper presentation or a poster;
2. Carried out a study visit to an overseas institution, conducted collaborative research, or experienced joint training for at least 90 consecutive days.

(III) Requirements for Scientific Research Achievements

1. A postgraduate shall have obtained at least one of the following achievements prior to degree application:

- (1) Published achievements at the frontier of fundamental or applied research in an academic journal;
- (2) Obtained a recognized achievement at a particular stage in the project that met major national needs; or
- (3) Made innovative achievements in the commercialization of high-tech achievements or in the development of instruments with national importance.

(IV) Specific Rules for Recognition of Scientific Research Achievements

Recognition of academic papers:

1. A doctoral candidate shall meet one of the following prerequisites:

- (1) Has one academic paper published in or accepted by a top international journal; or
- (2) Has two academic papers published in or accepted by important international journals or domestic journals with international influence, with at least one written in English.

2. A master's degree candidate shall meet one of the following prerequisites:

- (1) Has one academic paper published in or accepted by a journal; or
- (2) Published one international academic conference paper.

(V) Remarks

1. An approved invention patent is equivalent to an academic paper published in a domestic journal with international influence.

2. Top international journals refer to those categorized in JCR Zone Q1; important international journals refer to the SCI journals; domestic journals with international influence refer to those included in the catalog of journals selected by the China. Science and Technology Journal Excellence Action Plan; the academic journals for master's degree candidates shall be SCI, EI or CSCD journals; and international conference papers for master's degree candidates shall be collected in EI journals.

3. Other requirements are the same as those of the Implementing Rules of USTC for Award of Master's and Doctoral Degrees.

4. Situations not addressed in the aforesaid provisions shall be discussed and decided by the Degree Sub-Committee of the Department.

VI. Criteria for Award of Postgraduate Degrees in Information and Intelligence

(I) Main Research Areas

- 1. Detection technology and automation equipment (081102)
- 2. Pattern recognition and intelligent systems (081104)

3. Computer application technology (081203)

(II) Requirements for Research Scientific Achievements of Doctoral Candidates

Achievement quality and quantity requirements (fulfilling any one of the following items):

- (1) One Grade A achievement;
- (2) Two Grade B achievements;
- (3) One Grade B achievement and two Grade C achievements.

In short: 1A or 2B or 1B+2C. Achievements may include research papers, contest awards, patents, or standards, etc.

1. Criteria for paper grades A to C:

Grade A: International journals categorized in SCI Zone Q1 and Q2 (excluding IEEE Access), IEEE Transactions journals, IEEE Journals, ACM Transactions journals, ACM Proceedings journals, Grade A international English language journals/conference proceedings recommended by China Computer Federation (CCF), and Grade A journals/conference proceedings recognized by the Degree Sub-Committee of the Department (see Annex);

Grade B: SCI foreign language journals, Grade B international English language journals/conference proceedings recommended by CCF, and Grade B journals/conference proceedings recognized by the Degree Sub-Committee of the Department (see Annex);

Grade C: SCI or EI Chinese language journals/international conference proceedings, Grade C international English language journals/conference proceedings recommended by CCF, Chinese language journals recommended by CCF, CSCD journals, and approved domestic and foreign invention patents.

1. Authorship and content requirements for achievements

- (1) The CAS quartile ranking system is used for SCI journals pertaining to degree criteria.
- (2) Grade A or B international conference paper used by a postgraduate for degree application that is collected in the proceedings; and the Grade C international conference paper a doctoral candidate used for degree application must be EI retrievable.
- (3) If the criteria for academic paper grading is revised, the highest grade of the academic paper published during the program shall prevail, with supporting documents attached.
- (4) An academic paper that has won the best research paper award shall be promoted by one grade, and a short paper shall be demoted by one grade.
- (5) An interdisciplinary academic paper shall be treated as the highest grade among the disciplines, with supporting documents attached.
- (6) Patent: The invention patent shall have the Supervisor as the first inventor and the degree applicant as the second inventor, and be related to the dissertation.

3. Criteria for assessment of qualitative achievements of doctoral candidates:

(1) A top award won by a doctoral candidate for any discipline contest related to the dissertation and recognized by the Degree Sub-Committee of the Department (see Annex) as the first contributor may be used for degree application as a Grade B achievement, and be counted as one at the most.

(2) The participation of a doctoral candidate in the formulation of any international or national standard may be regarded as a Grade B achievement if the following is achieved, and counted as one at the most: participated in the preparation of the standards formulated by IETF, ITUT, ISO/IEC, IEEE, 3GPP or other international standardization organizations recognized by the Degree Sub-Committee of the Department, or the preparation of the GB series of national standards of China, with such standards having been officially released (based on the names of the authors).

4. Criteria for assessment of direct award of achievements for doctoral candidates:

(1) The candidate won a second class or above National Science and Technology Award, which is equivalent to one Grade A achievement (ranked among the top six) or one Grade B achievement if ranked after the top six.

(2) The candidate won a first class or above science and technology award at the provincial or ministerial-level or granted by a Tier 1 society qualified to recommend a national award is equivalent to one Grade A achievement (ranked among the top three) or one Grade B achievement (ranked among the top five).

(III) Requirements for Scientific Research Achievements of Master's Degree Candidates

Prior to applying for a master's degree, a candidate must meet one of the following three prerequisites:

1. Prior to applying for a master's degree, the candidate, as the first author (excluding the Supervisor's authorship), shall have published at least one academic paper related to the dissertation in an academic journal or at a conference recognized by the Degree Sub-Committee of the Department. The published academic paper must meet one of the following requirements:

(1) Included in SCI, EI, ISTP or CSCD;

(2) Published in an English language journal;

(3) Published in a journal included in the List of Domestic Journals recognized by the Degree Sub-Committee of the Department or other Degree Sub-Committees of related disciplines;

(4) Included in the publicly published proceedings of a regular international academic conference (with an ISBN number).

2. A national or provincial or ministerial-level scientific research achievement award or an invention patent obtained by the candidate is equivalent to one published academic paper, if it meets the requirements of the general provisions of the Reference Guide of USTC for Publication of Academic Papers by Postgraduates (2008 Edition). The identification of scientific research achievements may not replace the publication of academic papers.

3. Criteria for qualitative assessment of a master's degree candidate:

A top award won by a master's degree candidate at a contest of any discipline related to the dissertation as the first contributor and recognized by the Degree Sub-Committee of the Department (see Annex) may be used as an achievement for degree application.

(IV) Annex

1. The Degree Sub-Committee of the Department is responsible for recognizing discipline contests deemed to be equivalent to Grade B achievements and the relevant requirements. When applying for the degree, the discipline contest documents shall be submitted to the Degree Sub-Committee of the Department to determine whether such contests meet the criteria for Grade B achievements.

Contest	Organizer	Requirements
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2. Grade A and B Conferences Recognized by the Degree Sub-Committee of the Information and Intelligence Department (long papers only)

S/N	Grade	Abbreviation	Full name of conference
Grade B Conferences Recognized by the Degree Sub-Committee of Science Island (long papers only)			

S/N	Grade	Abbreviation	Full name of conference
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3. Grade A and B Journals Recognized by the Degree Sub-Committee of the Information and Intelligence Department

S/N	Grade	Journal.	Journal No.	Organizer
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VII. Criteria for Award of Postgraduate Degrees in Nuclear Science and Technology

(I) Main Research Areas

1. Nuclear energy science and engineering (082701)
2. Nuclear technology and applications (082703)

(II) Requirements for Scientific Research Achievements of Degree Candidates

1. Prior to applying for a doctoral degree, a doctoral candidate must have, as the first author (excluding the Supervisor), at least two high-level research academic papers related to the dissertation published in or accepted by foreign or domestic journals, with at least one paper in an international English language journal.
2. Prior to applying for a master's degree, a master's degree candidate must have, as the first author (excluding the Supervisor), at least one research academic paper related to the dissertation published in or accepted by a foreign or domestic journal.
3. If a postgraduate uses a paper for which he/she is the second co-first author to apply for a degree, and that paper has been published in a high impact journal (to be determined by the Degree Sub-

Committee of the Department), it may be regarded as a paper published in an English Language journal. There can only be one such paper.

4. The international conference paper used by a postgraduate for doctoral degree application must be retrievable. The international conference paper used for master's degree application must be collected in a proceeding with an ISBN number.

5. Any of the following scientific research achievements is equivalent to one paper published in a domestic journal:

(1) A postgraduate who has won a national scientific research achievement award (ranked among the top five) or a provincial or ministerial-level scientific research achievement award (ranked among the top three);

(2) A postgraduate who has published an academic monograph (among the top three authors and independently contributed to a total of more than 25,000 words);

(3) A postgraduate involved in high-tech research who has a retrievable an international conference paper as the first author;

(4) A postgraduate who has an invention patent granted as first inventor;

(5) If a postgraduate fails to meet the requirement for paper publication but has made other academic achievements with unique creativity and independence in his/her scientific research, the scientific research achievement requirement may be fulfilled upon proposal by the Supervisor and recommendation by three experts in the field, as well as approved by two-thirds of the Degree Sub-Committee members.

(III) List of Academic Journals Recognized by the Degree Sub-Committee of the Department

1. List of Academic Journals Recognized by Degree Sub-Committee of the Nuclear Science and Technology Department

S/N	Journal	Journal No.	Organizer
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2. List of Academic Journals Recognized by the Degree Sub-Committee of Science Island

S/N	Journal	Journal No.	Organizer
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Part III: Criteria for Award of Professional Postgraduate Degrees

I. Requirements for Scientific Research Achievements of Professional Doctoral Candidates in Engineering

(I) Main Research Areas

1. Electronic information (0854)
2. Machinery (0855)
3. Materials and chemicals (0856)
4. Resources and the environment (0857)
5. Energy and power (0858)

(II) Requirements for Scientific Research Achievements of Degree Candidates

To be eligible for a degree application, a professional doctoral candidate in engineering shall, during his/her academic program, participate in major and priority engineering projects in the relevant engineering fields and publish at least one SCI or EI retrievable paper as the first author; and the research achievements he or she obtains must meet one of the following prerequisites:

Won a second or higher scientific research achievement prize at the national, provincial or ministerial level or awarded by a national industry society (or association) equivalent to that at a provincial or ministerial level, and the second prize ranking is among the top three or top 1/2 winners;

Participated in the formulation of industry standards at the international, national, provincial or ministerial level or equivalent to that at the provincial or ministerial level;

The academic achievement has undergone expert appraisal or acceptance by an institution or organization at the provincial, ministerial or higher level, and ranks among the top three;

Presided over or served as one of the key technical personnel of the design of a program that has been adopted for implementation or that has its key technical indicators having met the design requirements, and that has generated significant economic or social benefits;

Published one engineering monograph as the first author;

Has one invention patent publicly disclosed or approved in China or abroad with the Supervisor as the first inventor and the candidate as the second inventor;

Published one high-level paper as the first author recognized by all disciplines.

The academic achievements shall be closely related to the applicant's dissertation.

II. Criteria for Award of Professional Master's Degrees in Engineering

(I) Main Research Areas

1. Electronic information (0854)
2. Machinery (0855)
3. Materials and chemicals (0856)
4. Resources and the environment (0857)
5. Energy and power (0858)
6. Biology and medicine (0860)

(II) Requirements for Scientific Research Achievements of Degree Candidates

Prior to applying for the defense of the dissertation for the professional master's degree in engineering, a candidate must meet one of the following scientific research achievement prerequisites during the academic program:

1. Has at least one academic paper published in or accepted by an SCI or EI journal or a domestic or foreign core academic journal recognized by the Degree Sub-Committee of the Department;
2. Has an academic paper included in the proceedings of an international conference and publicly published;
3. Has been invited to make a report at an international academic conference;
4. Has an invention patent officially disclosed or approved;
5. Won a national scientific research achievement award (with the candidate ranked among the top five) or a second or higher scientific research achievement prize at the provincial or ministerial level (with the candidate ranked among the top three).
6. Certificate of application of scientific research achievement related to the dissertation.

(III) Template for the Certificate of Application of Scientific Research Achievement of Professional Master's Degree Candidates in Engineering

Certificate of Application of Scientific Research Achievement

This is to certify that Mr./Ms. *** has adopted (the design technology method) in his/her master's degree dissertation in engineering (the thesis topic) for (the engineering background), and designed and achieved *****/

The system has now been applied by (the name of user) to solve (*****), and has achieved (***** benefits etc.) in practical application.

Name of user (stamp)

DDMMYY

III. Criteria for Award of Professional Master of Engineering Management (MEM) Degrees

(I) Main Research Area

1. Engineering management (1256)

(II) Requirements for Scientific Research Achievements of Degree Candidates

1. Basic requirements

An MEM candidate shall adhere to the four basic principles, abide by the Constitution, laws and regulations, the code of ethics for citizens, and the school management systems, and have good moral character and behavior.

2. Qualification

The postgraduate training unit is responsible for examining the qualifications of MEM candidates according to the implementing rules, and will not accept the degree applications of any of the following candidates:

- (1) A candidate who has not completed the required credits.
- (2) A candidate whose weighted grade point average of his/her professional foundation courses is lower than the excellent grade (75 points).
- (3) A candidate who has been subject to a demerit or harsher punishment during the academic program, and is still within the period of punishment.
- (4) A candidate who has a record of legal violation or crime during the academic program.
- (5) A candidate who has been enrolled for more than 5 academic years;
- (6) A candidate who has cheated during an examination or plagiarized another's academic achievements;
- (7) A candidate who has been disqualified from graduating.

3. Course Study and Examination Requirements

An MEM candidate shall have a weighted grade point average of at least 75 points (excellent level) in his/her professional foundation courses.

If the weighted grade point average of the professional foundation courses is below 75 points (excellent level), but the grade of each course is above 60 points and the required credits have been obtained, the MEM candidate is allowed to defend his/her dissertation (design). If the defense is successful, the MEM candidate will be allowed to graduate but may not apply for the degree.

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This English version of *Criteria for Award of Postgraduate Degrees of University of Science and Technology of China (USTC)* is for reference only, subject to the 2020 Chinese version.