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| **AI Education Certification Program** |
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□ Background and Purpose

ㅇ **(Ministry of Education) The convergence of academic approaches required in the era of the 4th industrial revolution is an ongoing topic in academia.**

- In 2016, the Ministry of Education announced and established the legal grounds for “Measures to improve the university education system” in an effort to ease regulations and promote educational flexibility

\* “Measures to improve the university education system in order to foster the creativity and innovativeness of talented individuals” (Ministry of Education, Dec. 16, 2016)

ㅇ (Ministry of Science and ICT) Since 2019, the Ministry has operated a total of 16 “AI Graduate School” programs

\* “AI Graduate School Support Project” led by the Ministry of Science and ICT (2019 ~ present)

- Recently, greater emphasis is being placed on enhancing the capacities of science and engineering universities to respond to changes in the digital era and to foster innovative talents in the digital sector, the Green New Deal, the new bio industry, and other promising fields.

\* “The 4th Framework for Supporting the Fostering of Talented Individuals in Science and Technology” (Ministry of Science and ICT, Feb. 21)

ㅇ To that end, active measures are being implemented in response to government policies and the surrounding environment to consider the demands of students and the realization of convergence education, which is the educational goal of UST. Therefore, UST is prioritizing the promotion of the field of AI.

□ Basic Direction

ㅇ **(Curriculum Planning) To introduce and operate an education certification program to strengthen AI competency for students in non-AI majors who have completed AI-related courses**

- **Increased demand by students due to the growing social need for AI**

ㅇ **(Role as a Convergence Hub) To promote the expansion of convergence curricula by linking majors and subject management between government-funded research institute campuses as through the role of the UST main campus as a convergence education hub**

□ Details

ㅇ **AI Education Certification Program**

- **(Application Eligibility)** Non-AI majors who have completed AI courses

- **(Requirements)** Completing at least 5 credits of AI courses and writing and submitting a thesis\* that applies AI technology

‧ The thesis will be reviewed by the Certification Review Committee, which is composed of professors in charge of AI-related majors.

\* Includes domestic/foreign academic conferences, academic journals, thesis presentations, etc.

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|  | **< Courses Recognized for the AI Education Certification Program >** |  |
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| - (Common Core Courses) Artificial Intelligence (AI) 1 course (2 credits)  - (Major Courses) At least 1 (3 credits) AI major course from KIST, ETRI, or KISTI  \* Qualifying major courses are designated by the professor in charge of the AI major at the above three  schools (see Attachment 1) | | |

\* Students can complete 5 credits of AI courses (2 credits) and AI major courses (3 credits) among the common core courses within the minimum required credits (32 credits) for each degree program or two AI major courses (6 credits)

\* Only courses with a grade of B0 (3.0) or higher are recognized

- (Application Period) Students can apply at any time after satisfying the requirements

\* Note: All applications are reviewed only once per semester (February, August).

- (**Application Process**) After satisfying the requirements, apply from the menu related to the integrated information system

- **(Education Certification Results)** Completion of program indicated on academic record and certificate issued

**\* Certificate of completion is issued after passing the certification review, including completion of AI courses, academic journal publication, etc.**

[Attachment 1] Major Courses Recognized for the AI Education Certification Program in Fall Semester of 2022

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| **School** | **Major** | **No.** | **Course No.** | **Course Name** |
| Korea Institute of Science and Technology **(KIST)** | **AI-Robotics**  **(7 courses)** | 1 | 21054 | Advanced Computer Vision |
| 2 | 21049 | Machine Learning |
| 3 | 21061 | Robot Vision |
| 4 | 21051 | eXplainable AI |
| 5 | 21065 | Medical Image Analysis |
| 6 | 21066 | System for AI |
| 7 | 21063 | Autonomous Driving Mobile Robot |
| Electronics and Telecommunications Research Institute **(ETRI)** | **AI**  **(11 courses)** | 1 | 21222 | Advanced Deep Learning |
| 2 | 21215 | Deep Learning |
| 3 | 21218 | Deep Reinforcement Learning |
| 4 | 21225 | Advanced Video Understanding |
| 5 | 21223 | Embedded Deep Learning |
| 6 | 21224 | Computer Vision |
| 7 | 21214 | Pattern Recognition and Machine Learning |
| 8 | 21216 | Stochastic Process |
| 9 | 21219 | Speech Signal Processing |
| 10 | 21220 | Optimized Learning Theory |
| 11 | 12381 | Mathematical Tools for Computer Vision |
| Korea Institute of Science and Technology **(KISTI)** | **Applied AI**  **(2 courses)** | 1 | 21105 | Advanced Deep Learning with Research Data |
| 2 | 21108 | Applied AI 3: Solution of Social Issues |
| **Total** | | **20 major courses (3 majors)** | | |