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# 1. Degree to be obtained:

Bachelor of Science in Informatics and Data Science

## 2. Overview

Because the complexity of economics, society, and the environment is increasing due to rapid globalization, people with the ability to identify problems and find solutions on their own have become indispensable for various organizations. In addition, it is urgently required to develop people capable of

subjects are designated as required, or elective required subjects. In the second academic year, students take common basic subjects in information science to establish a foundation for study after choosing their course, and to obtain the knowledge required for choosing a course and/or career after graduation.

In the third year, they choose either the data science or the informatics course according to their own interest and aptitude. This program provides such a complex curriculum for the early stages of education

define a research topic related to data science or informatics. Also, students are engaged in research, experimentation, and discussion under the guidance of the faculty member who is engaged in instruction for the thesis, and organize and present their results in their thesis. In these activities, they establish their acquired skills related to the development of an information infrastructure, information processing techniques, and the use of technology for producing new added value through data analysis.

## 3. Diploma policy (policy for awarding degrees and goal of the program)

This school educates students to become specialists with advanced capabilities in each of data science and informatics, as well as the basic abilities that consist of processing techniques based on the information technology, which are the basis of the information-intensive society of today, as well as advanced data analysis capabilities. In addition, this school aims to develop people who are capable of appropriately managing, processing, and analyzing information that has swelled significantly, and become complicated, due to such phenomena as the accumulation of big data, technological breakthroughs in fields related to artificial intelligence (AI), and the development of the IoT.

This program will award the degree of Bachelor of Science in Informatics and Data Science to students who have acquired the knowledge and abilities described below, and earned the required credits defined for the educational course:

information technology.

Achievement target I3. Knowledge related to hardware and software, and the programming skills required for efficiently processing data.

Achievement target E. Creative and logical thinking ability for analyzing practical issues and challenges in order to provide rational solutions that match social needs, as well as the capability to realize these solutions.

4. Curriculum policy (policy for arranging and implementing the curriculum)

To enable students to achieve the targets that are defined for the program, the curriculum of the Informatics and Data Science Program is organized and implemented according to the policies described below. Academic achievement is evaluated based on the grade scores for the subjects and the level of achievement against the target defined for this program.

In the first academic year, students take liberal arts core subjects, common subjects (foreign language subjects and health and sports subjects), and fundamental subjects (subjects related to mathematics and statistics). These subjects respectively correspond to the achievement targets A, B, C1, and E; those of C1 and C2; and those of A and B.

In the second academic year, all students take the specialized core subjects. The same specialized core subjects are designated for both courses, and all of them are designated as required subjects or elective required subjects. Specialized core subjects consist of information mathematics subjects (corresponding to the achievement targets A and B), probability and statistics subjects (achievement targets A, B, D1, D2, and D3), computer science subjects (achievement targets A, B, I1, I2, and I3), and applied mathematics subjects (achievement target I1).

In the third academic year, students take subjects that are deeply related to either the data science course or the informatics course. Different specialized subjects are designated (required subjects, elective required subjects, free elective subjects, and subjects without designation) for each course. They consist of data science subjects that correspond to one or more of the achievement targets D1, D2, and D3, and informatics subjects the correspond to one or more of the achievement targets I1, I2, and I3. Students also take Seminar for Information Data Science I and II (corr38/b10(n AMCID 436r)4(am)30(i)8(s)) 46.625

## 6.Obtainable qualifications

Educational personnel certification (Information teaching and Mathematics) is awarded to the student who earns the required credits.

## 7. Class subjects and their contents

- \* For class subjects, refer to the subject table in Attachment 1. (The subject table is to be attached.)
- \* For the details of the class subjects, refer to the syllabus that is published each academic year.

#### 8. Academic Achievement

The evaluation criteria are specified for each evaluation item for academic achievement, and the achievement level against the criteria is designated at the end of the semester.

The evaluation score for each evaluation item is converted to a numerical value (S = 4, A = 3, B = 2, and C = 1) and the evaluation standard for academic achievement, from when the student entered the university to the end of the last semester, is determined using these values while applying weightings. The evaluation standards consist of three levels, i.e. Excellent, Very Good, and Good.

Achievement evaluation	Numerical
	conversion

S (Excellent: 90 or more points)

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## Detailed objectives are as follows:

- 1. To acquire the ability to develop a research plan for their research objective on their own, and to carry out their research according to that plan.
- 2. To develop skills for collecting materials related to the research objective, understanding the objective, and identifying problems.
- 3. To develop capabilities for analyzing problems related to the research objective and providing solutions that match social needs.
- 4. To develop skills required for research activity related to reading, writing, and searching for information in English.
- 5. To develop documentation skills for organizing research results and describing the meaning and efficacy of the obtained results in logical and consistent text.
- 6. To develop presentation skills for deli

cycle?

#### o Evaluation method

Each subject in the program is evaluated based on student evaluation of the classes and achievement evaluation results.

For evaluation of the upward spiral in quality of the program, questionnaires for students are conducted in an appropriate cycle, and the opinions of ex-students and companies are collected.

o Policy and method for feedback to students

For individual classes, the faculty member who is in charge of the class makes comments on the evaluation of the class and the achievement evaluation results.

Actions taken, such as changes to the structure of the program, are published on the web site of School of Informatics and Data Science and/or another medium with the reason.

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