

Master's Program, Graduate School of Information Science and Engineering
Revisions to Written Examination Subjects and Allocation of Points for Regular Admissions
and Accelerated Learners (Grade Skippers) Admissions

The Master's Program of the Graduate School of Information Science and Engineering proposes the following revisions to the subjects for the written examination and the allocation of points for Regular Admissions and Accelerated Learners (Grade-Skippers) Admissions.

1 . Effective Date of the Revisions

The revisions will take effect starting with the entrance examinations for enrollment in April 2027.

*The revisions will apply to the entrance examinations administered in August 2026.

2 . Applicable Programs and Examination Methods

Program: Master's Program

Examination Methods: Regular Admission (Japanese-based Program, English-based Program), Accelerated Learners (Grade Skippers) Admission (Japanese-based Program, English-based Program)

3 . Subjects and Allocation of Points After the Revision

Written examination (450 points)

Examination Subjects and Questions		Allocation of Points		Remarks
Mathematics Subject Group	Linear Algebra	150 points	Total 150 points	Choose 1 out of the 2 questions
	Probability and Statistics	150 points		
Computer Science Subject Group	Data Structure and Algorithms	100 points	Total 300 points	Choose 3 out of the 5 questions
	Computer Systems	100 points		
	Artificial Intelligence	100 points		
	Databases	100 points		
	Media Processing	100 points		

4 . Keywords for Each Subject

Subjects	Keywords
Linear Algebra	Vector spaces, matrix operations and properties, eigenvalues and eigenvectors, systems of linear equations, etc.
Probability and Statistics	Major probability distributions, expectation and variance, independence, correlation and regression, estimation and tests, etc.
Data Structures and Algorithms	Data structures, computational complexity, recursion, sorting, searching, etc.
Computer Systems	OS (resource management, control programs such as hardware management and interrupt handling, etc.), Networks (OSI reference model, TCP/IP, etc.), Computer architecture (pipelining, cache memory, etc.)
Artificial Intelligence	Search, Bayesian inference, reinforcement learning, machine learning, natural language processing, symbolic logic, etc.
Databases	SQL, Conceptual Modeling, Normalization, Relational Algebra, File Organization, Transaction Management, etc.
Media Information Processing	Fundamentals of image processing and computer graphics (spatial filtering, feature extraction, coordinate transformation, shape modeling, rendering, etc.)

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