

	Liberal arts subject	Specialized common subjects	Specialized subject	
Freshman	★Safety and Health Management ★Basic Practice of ICT I Basic Practice of ICT II General Lecture for Technologists A English I English II Sports Communication Design Thinking Creative Work Practices A Creative Work Practices B Fundamental Competencies for WorkingPersons I	★Freshman Seminar ★Fundamental Engineering and Laboratory Works ★Basic Measurement Practices ★Introduction to Manufacturing technology Introduction to Mechanical Engineering Machine Sketching Basic Chemistry Basic Materials Engineering Basic Mathematics I Basic Mathematics II Basic Mathematics III Basic Mathematics IV Basic Physics I Basic Physics II Basic Physics III Fundamental Physics Laboratory Works Design Techniques Basic Electric Circuits Business Communication I Business Communication II Product Design Fundamental Mathematical Engineering	Data Science and Practices Python Programming Exercises JavaScript Basics and Practices Fundamental of Robot Kinematics and its experiment Digital fabrication and Practices Basic numerical analysis and practice Machine Drawing Practices of Drawing with 2D CAD Applications II 3D CAD and Practice I Hand Finishing and Practices Machining and Basic Practices NC Program and Basic Practices Welding/Sheet Metal Forming and Practices	
Sophomore	★Fundamental Competencies for WorkingPersons II English III Living Technique Hygiene SDGs-A SDGs-B	★Project Practice Secondary Program ICT application and practice Basic Numerical Analysis Industrial Materials A Industrial Materials B Strength of Materials Strength of Materials II Production Management Statistical data analysis Introduction to Thermal and Fluid Engineering Thermal Engineering Quality Control Introduction to Manufacturing System Fluid Engineering Basic Physics IV Machine System and Mechanism Mathematics for Engineering	AI / Information Systems Course	Introduction to Computer Network WEB Design and Practices Introduction to Semiconductor Engineering CG Programming and Practices Digital Circuit and Practices
			The Robotics System Course	Digital Circuit and Practices Electric and Electronic Technology Analog Electric Circuits and Practices Electric and Electronic Circuit and Experiments Control Technology Basics and Practices Control Technology and Experiments
			The Machine Design Course	Machine design and drawing I Mechanical dynamics experiment Basic Casting Practices Practices of Drawing with 2D CAD Applications II Electric and Electronic Circuit and Experiments Control Technology and Experiments Machine design and drawing II
			The Production Systems Course	Basic Casting Practices 3D CAD; Application and Exercises Material Evaluation and Experiments Metal Forming Practices Automotive Production Engineering
			★Basic Internship (40 days work)	
Junior	General Lecture for Technologists B Language and culture Japanese Cultural Studies Civilization and society Fundamental Competencies for WorkingPersons III	★Products Development Project Program Industrial Constitution Acoustic Engineering Reliability Engineering User Experience Engineering Energy Engineering Ergonomics Heat Transfer Engineering Kansei Engineering Bioengineering Technical Communications Microdevices Introduction of Life Sciences Strategies for Intellectual Property Utilization Product development plan	AI / Information Systems Course	Technology for Intelligent Systems Technology of Artificial Intelligence and Practices Java Programming and Practices Digital Media Design Practice Digital Image Processing C Language and Practices Mechatronics and Experiments Sensor Technology and Experiments Embedded Systems Fundamental Applied Embedded Systems Interface Engineering Technology for Internet of Things and Experiments IoT System Architecture
			The Robotics System Course	C Language and Practices Technology for Internet of Things and Experiments Java Programming and Practices Actuator and Experiments Embedded Systems Fundamental Applied Embedded Systems Feedback Control and Experiments Sensor Technology and Experiments Mechatronics and Experiments Robot Technology and Its Experiments I Robot Technology and Its experiment II Robot Technology and Its Experiments III Robot Technology and Its Experiments IV Digital Image Processing
			The Machine Design Course	Applied Machine Elements Production Machinery Strength Design and Exercises CAE and Basic Exercises CAE and Applied Exercises 3D CAD and Digital Technical Product Documentation practice Sensor Technology and Experiments Automation Technology and Experiments CAD design and practice CAD/CAM and Practices Design Process of Industrial Products and Practice
			The Production Systems Course	CAD/CAM and Practices NC Machining Practices Machine Work Experiments Manufacturing Technology A Machine Work B Grinding and Practices Plastic Molding and Practices Engineering of Production Systems and Exercises Precision Measurement and Experiments Forging and Practices Ultra Precision Machining and Practices Toyota Production System Practice and Case Study Casting and Practices
Senior	Learning and the world learned by Takeshi Umehara Management learned by Drucker Fundamental Competencies for WorkingPersons IV	★L Seminar	★Graduation Project Specialized Internship I (20 days work) Specialized Internship II (40 days work)	

Department of Building Technologists

Liberal arts subject		Specialized common subjects		Specialized subject		
Freshman	★Safety and Health Management ★Basic Practice of ICT I Basic Practice of ICT II General Lecture for Technologists A English I English II English III Sprts Communication Design Thinking Creative Work Practices A Creative Work Practices B Fundamental Competencies for WorkingPersons I	★Freshperson Seminar Basic mathematics I Building Construction and Methods I Basic Survey and Practices Safety Engineering Basic mathematics II Building Construction and Methods II Fundamental Wood Materials ★structural mechanics I Introduction to Architecture and Construction Theory ★Architecture Planning I structural mechanics II Social Infrastructure Soil mechanics City Planning Wood-based Materials and Wood Drying		Basic Construction Design and Practices I Basic Wooden Structure and Practices I Basic Practice of Construction I Basic Finish and Practices I Basic Construction Design and Practices II Basic Wooden Structure and Practices II Basic Practice of Construction II Basic Finish and Practices II ★Basic Construction Design and Practices III Basic Wooden Structure and Practices III Basic Practice of Construction III Basic Finish and Practices III Basic Construction Design and Practices IV Basic Practice of Construction IV Basic Finish and Practices IV Basic Wooden Structure and Practices IV		
	Lecture-based Subjects			Training-based Subjects		
Sophomore	Construction Lifesiving Technique Hygienel ★Environment I Environment II ★Architecture PlanningI Structures and Materials V Materials for Finishing System Construction Schedule I Wood-based Materials and Wood Drying ★Products Development Project Program II Fundamental Competencies for WorkingPersons II Communication Design Construction Materials	Construction Ethics History of Western Architecture Environment III City Planning Building Production Architecture Laws and Regulations II Architecture Laws and Regulations IV Surveying II Construction Schedule II ★Architecture Laws and Regulations I Architecture Laws and Regulations II Structure and Materialvi Surveying I		Basic Wooden Structure and Practices V Basic Steel Structure and Practices Basic Waterproofing, Coating and Practices ★Basic Construction Design II Construction CAD and Practices I Construction CAD and Practices II ★Applied Construction Design I RC Construct and Practices Steel Structure Building and Practices Applied Wooden Structure and Practices I Survey Practices I Construction CAD and Practices III Applied Construction Design II Finishing of RC Construct and Practices Steel Structure Finishing and Practices Applied Wooden Structure and Practices II Survey Practices II ★【Internship】 Basic Internship Internship for Architecture (primary course) Internship for Survey Practices (40 days work)		
	Lecture-based Subjects			Training-based Subjects		
Junior	Common Lecture	★General Lecture for Technologists B ★Construction Facilities and Equipment I Production Design Construction Economics I Construction Economics II Energy Ergonomics Quantity Survey for Construction I Quantity Survey for Construction II Housing Studies Construction Facilities and Equipment II Construction Facilities and Equipment III History of Japanese Architecture Construction Business Japanese Cultural Studies I Japanese Cultural StudiesII Conservation and Restoration Erection Planning Lifesiving Technique Hygienell Project Management Construction Management Construction Facilities and Equipment IV History of Modern Architecture ★Products Development Project Program III Fundamental Competencies for WorkingPersons III	Timber Construction	Wooden Structure Framework Methods Timber Engineering Structural Design of Timber Structures Wood-Based Construction New Methods Wooden Building Interior and Exterior Finish Work Methods Wood Processing Methods Exercises I for Structural Design of Timber Structures Stereotomy Wood Allocation Exercises II for Structural Design of Timber Structures	Timber Construction	Design & Drawing of Japanese Wooden House I Wooden Structures, Integration and Practices I Timber Structures and Experiment I Wooden Structures, Integration and Practices II Design & Drawing of Japanese Wooden House II Wooden Structures, Integration and Practices III Timber Frame and Practices Wooden Structures, Integration and Practices IV Design & Drawing of Japanese Wooden House III Timber Structures and Experiment II Wooden Structures, Integration and Practices V Wooden Structures, Integration and Practices VI Design & Drawing of Japanese Wooden House IV Timber Structures and Experiment III Wooden Structures, Integration and Practices VII Wooden Structures, Integration and Practices VIII
			Structure Construction	RC Structure II RC Construction I RC Structure I Hydraulics and Soil Mechanics Steel Structure Nature and Urban II Flood Control Construction Methods RC Construction II Building Construction Methods Hybrid Structure RC Diagnosis Seismic Resistant and Isolation	Structure Construction	Loads on Buildings and Structural Design Practice of Urban Infrastructure RC Structures; Integration and Practices I Ground Survey and Soil Experimental Practice Structure Design II RC Structures; Integration and Practices II Structures of traditional building system :Integration and Practices I Structures of traditional building system :Integration and Practices II Environmental Reseach and Practices Design of Building Environment and Services Structure Design III RC Structures; Diagnosis and Practices
			Finishing & Interior	Bilding Exterior Construction System Substrate and Dry-Wet construction method for Finishings Interior Planning Building Maintenance Modenization and Preservation Landscape Maintenance	Finishing & Interior	Finishing Skills and Practices I Finishing Skills and Practices II Finishing Skills and Practices III Furniture Making Skill and Practice I (Design and Drawing) Finishing Skills and Practices IV Furniture-Making Skills and Practicell (Basic Wood Working) Furniture-Making Skills and PracticellI(Basic Wood Working) Furniture-Making Skills and PracticeIV(Applied Wood Working) Furniture-Making Skills and Practice VI(Applied Wood Working)
			ArchitectureDesign	Architecture PlanningII Building Observation Methods Landscape Planning Garden Making Techniques Landscape Design Interior Planning Nature and Urban II	ArchitectureDesign	Construction Total Design I Design for Environment Construction Total Design II Environmental Survey and Practices Construction Total Design III Construction Total Design IV
		Lecture-based Subjects			Training-based Subjects	
Senior	Fundamental Competencies for WorkingPersons IV			★Products Development Project Program IV ★Graduation Project Specialized Internship Internship for Architecture (advanced course) Specialized Internship for Survey Practices		

★ Compulsory subject

	Specialized lecture subjects	Specialized training subjects	Common subjects	Project subjects
1st Year	Advanced lecture of Computer Aided Engineering Advanced Technology for Precision Equipment Design Advanced Technology for Precision Equipment Manufacturing Advanced Lecture on infrastructure Advanced Architectural Environmental Engineering Advanced lecture on Architectural Planning Building Facilities Engineering Advanced Lecture on Interior DesignDesign Advanced Lecture on Architectural History Advanced Lecture on City Planning Design for Steel Structure	Foundation of Model-driven software development Advanced information technology for manufacturing and practical training Study of Management for Engineer Advanced melting and solidification processing technology and practical training Advanced plastic forming technology and practical training Advanced machining technology and practical training Advanced analytical method for signal and information Building Maintenance Engineering Theory of Historic Preservation & Survey Practicum Advanced Structural Design Technologies and Applications Productive and structural design system of Japanese wooden architecture Technology of Advanced Material Conservation and Utilization Advanced construction management technology Studio Internship Internship I Internship II	Drucker's Advanced Innovation Current state of the world Drucker's Advanced Marketing Design for Manufacturing Monotsukuri system Advanced Digital Fabrication Design of Manufacturing Process And Products for Human-Things Co-operation Proposal Technique Advanced lecture of Sustainable Development Goals Basic Lecture for Technologists Research and Presentation for Technologists	Training course for technologists as project staff;Course1-Element technologies Training course for technologists as project staff;Course2- System design Training course for technologists as project staff;Course3- Project planning Training course for technologists as project staff;Course4- Project management Training course for technologists as project staff;Course5 - Practice Training course for technologists as project staff;Course6 - Leadership Practical training of research activity for technologists;Course1-Problemsolving Practical training of research activity for technologists;Course2- Innovation
2st Year				
Master's Degree Project				