For entrants in FY 2025

Appended Form 1

Specifications for Major Program

Name of School (Program) [School of Dentistry, Program of Oral Health Sciences]

Program name	(Japanese)	口腔工学プログラム
	(English)	Bachelor's Program in Oral Engineering

1. Degree to be obtained: Bachelor of Oral Health Science

2. Overview

The Program for Oral Health Science provides two courses (Course of Oral Science and Course of Oral Engineering) to educate students to become researchers, educators, or highly advanced medical staff in the area of oral health sciences while liaising with other areas such as medicine, engineering, and nursing in a manner based on scientific evidence. The Course of Oral Engineering aims to enable students to acquire knowledge, skills, and attitudes regarding medicine, dentistry, and engineering, from the basics to the cutting-edge, in order to be able to contribute to the fields of dental medicine and medical care with advanced techniques, knowledge, and rich humanity in line with changes in society and future development in the sciences. The educational program provided in this course educates medical staff in fields of highly advanced oral engineering, researchers in areas of oral health science, dental technicians, and educators.

- 3. Diploma policy (policy for awarding degrees and goal of the program)
- Course of Oral Engineering educates students to be able to integrate knowledge and skills regarding dentistry, medicine, and engineering to work in the following positions in oral engineering:
- Dental medical staff with the mindset of researchers, and business people, researchers, and educators with a clinical mindset;
- Oral engineers who can work in international fields;
- Educators and researchers who can pioneer fields of oral engineering and establish, systematize, and develop them to a highly specialized level; or
- Medical staff, educators, and researchers with a deep devotion to humanity, ethics, a deep human spirit, and a decisive sense of responsibility.
- Based on the aims above, this program will award the degree of bachelor of oral health sciences to students who have acquired the capabilities described below and earned the required credits for the educational course.
- (1) The ability to integrate and exercise knowledge and skills regarding liberal arts subjects, dental technology, basic dental medicine, clinical dental medicine, adjacent medicine, and related areas

of engineering;

- (2) The normative awareness and manner, together with the knowledge, skills, and communication abilities required for medical staff, and a capability for establishing good relationships with patients and staff, and contributing to patient-oriented team dental medicine; and
- (3) The ability to take a leading role in research, education, and clinical fields related to oral engineering, based on state-of-the-art knowledge, advanced skills, information gathering skills, problem solving abilities, an inquiring scientific mind, research capabilities, logical thinking skills, and an ability for lifelong study.
- 4. Curriculum policy (policy for arranging and implementing the curriculum)

To enable students to achieve the targets that are defined for Course of Oral Engineering, the educational course is organized and implemented according to the following policies:

- (1) In the first year, students study liberal arts subjects, together with students in other schools, in order to acquire a wide-ranging intelligence and establish the intellectual foundation required for dental medical staff. In addition to this, through PBL (Problem Based Learning) in the liberal arts seminars, students also acquire the basic attitude, skills, and knowledge required for self-disciplined study. Furthermore, they acquire fundamental knowledge regarding specialized areas in order to establish the foundation for enhancing professional knowledge and skills.
- (2) From the second to the fourth year, students study specialized subjects to acquire expertise and specialized skills. The specialized subjects include not only those related to dental technicians but also those regarding basic sciences such as life science, dentistry, adjacent medicine, and engineering such as system engineering and IT.
- (3) In the third and fourth terms of the third year and in the fourth year, students take the subject "Clinical Practice in Oral Health Engineering" that is provided at the university hospital in order to practice the knowledge and skills that they have acquired up to this time. Students are expected, through this practice, to learn skills and knowledge regarding the tasks of an oral engineer, specialized dental medicine, general dental medicine, and team medicine at a university hospital, and to acquire communication abilities, the normative awareness and manner required for medical staff, social skills, a cooperative mindset, and sound judgment.
- (4) In the third and fourth terms of the third year and in the fourth year, students take the subject "Special Study for Graduation" to acquire information gathering skills, problem solving abilities, research capabilities, logical thinking skills, and presentation skills, and to foster an inquiring scientific mind, positiveness, flexibility, creativity, and patience.
- (5) This course provides a bio-dental education program and IPE that aims to educate students to foster their scientific inquiring mind and acquire advanced knowledge and medical techniques that make them capable of cooperating with experts in various professions.

Academic achievement is evaluated based on the grade scores for the subjects and the

achievement level against the target defined for each educational program.

5. Start time and acceptance conditions

In the first year (when the student enters the university)

In the Program for Oral Health Science, the entrance examination is held for each course. This course is organized only for students who enter the Course of Oral Engineering in the Program for Oral Health Science in the School of Dentistry.

6. Obtainable qualifications

Qualification for the national examination for dental technicians (awarded when the student graduates.)

Students who have earned the credit specified separately are eligible to be awarded the degree in cell culture engineering certified by the Japanese Tissue Culture Association; and to obtain the Basic Grade 2 Certificate for Rehabilitation Make-up from Reiko Kazki Co., Ltd.

7. Class subjects and their contents

- * For the class subjects, refer to the subject table in Attached Sheet 1.
- * For the details of the class subjects, refer to the syllabus that is published for 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 each 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)	4
A (Very good: 80 - 89 points)	3
B (Good: 70 - 79 points)	2
C (Passed: 60 - 69 points)	1

Academic	Evaluation
achievement	standard
Excellent	3.00 - 4.00
Very Good	2.00 - 2.99
Good	1.00 - 1.99

- * Refer to the relationship between evaluation items and evaluation criteria described in Attached Sheet 2.
- * Refer to the relationship between evaluation items and class subjects described in Attached Sheet 3.
- * Refer to the curriculum map in Attached Sheet 4.

Study achievement in the course (specific knowledge, skills, and attitude that students can obtain)

- Knowledge & understanding
- 1. Knowledge and understanding related to liberal arts such as human and natural sciences
- 2. Knowledge and understanding related to foreign languages and culture
- 3. Knowledge and understanding related to the principles of medicine
- 4. Knowledge and understanding related to the basic attitude required for dental medical staff (dental technicians)
- 5. Knowledge and understanding related to social dentistry
- 6. Knowledge and understanding related to life science
- 7. Knowledge and understanding related to dental materials and biomaterials
- 8. Knowledge and understanding related to the prevention, medical examination, medical testing, diagnosis, and treatment of disease in areas of dentistry and adjacent medicine
- 9. Knowledge and understanding related to the specialized fields of dental technicians (dental technology)
- 10. Knowledge and understanding related to engineering (information processing, CAD/CAM, ME (medical engineering), system engineering, and management science)
- o Abilities and skills
- 1. Communication skills required for dental medical staff (dental technician)
- 2. Abilities and skills related to life science, material science, and social dentistry
- 3. Abilities, skills, and attitudes related to prevention, medical examination, medical testing, diagnosis, and treatment of disease in the regions of the mouth, jaw, and face

- 4. Abilities, skills, and attitude required for practically applying techniques in the specialized fields of dental technicians (dental technology) as a member of a dental medical team
- 5. Abilities and skills required for applying related engineering (information processing, CAD/CAM, ME (medical engineering), system engineering, management science, and bio-technology)

o Comprehensive capability

- 1. Comprehensive capability and attitude for autonomously and positively studying for the whole of one's life as a member of dental medical staff (dental technician)
- 2. Comprehensive capability and attitude related to medical testing, diagnosis, treatment, and prevention of disease in the regions of the mouth, jaw, and face
- 3. Comprehensive capability and attitude required for practically applying techniques in the specialized fields of dental technicians (dental technology)
- 4. Comprehensive capability for gathering, selecting, logically organizing, and presenting information
- 5. Comprehensive capability required for problem identification, research planning and promotion, results analysis, and presentation of results in a field related to oral engineering
- 9. Graduation thesis (graduation research) (meaning, student allocation, timing, etc.)
 Students are required to prepare their graduation theses.

(1) Purpose

To enable students to establish a foundation of knowledge and techniques required for research, in order to allow them to make a smooth start in their research at a higher level when they enter the graduate school.

2 Overview

Students are allocated to one of the departments, i.e. Anatomy and Functional Restorations, Medical System Engineering, and Oral Biology and Engineering. The contents of research vary depending on the department. The details of each department are introduced in the guidance of "Special Study for Graduation." Students join cutting-edge research activities in which the faculty is engaged, or identify a problem regarding oral health sciences by themselves and conduct the research to solve it. They are expected to acquire information gathering skills, problem solving abilities, research capabilities, and logical thinking skills through this process.

3 Student allocation timing and method

Students are allocated to the department in the second semester of the third year. Although the allocation method is separately defined, a great deal of importance is attached to the wishes of the student.

10. Responsibility

The dental department headquarters council and the faculty council of the School of Dentistry are engaged in the planning and execution of this course. For the processes of evaluation and action for improvement, the dean of the School of Dentistry consults with the dental department headquarters council and the faculty council of the School of Dentistry, and carries out the required actions while taking the results of consultations into consideration.

Table of Registration Standards for Liberal Arts Education Subjects, School of Dentistry

Т	neior's Pi	or's Program in Oral Engineering> Subject type		Engineering>	Required			Type of	Year	in which the sub	oject is taken (N	Tote 1)
y p			Subject	type	No. of	Class subjects, etc.	No. of	course		grade		grade
e e					credits		credits	registration	1st semester	2nd semester	3rd semester	4th semester
		Pea	ace Science	Courses	2		2	Elective/ required			0	
	es in cation	Intro	oduction to	University Education	2	Introduction to University Education	2	Required	0			
	Basic Courses in University Education		Liberal A	Arts Education	2	Introductory Seminar for First-Year Students	2	Required	0			
	Basi Univer		Advan	ced Seminar	0	Advanced Seminar	1	Freeelective	0	0		
					2	General Health and Oral Sciences I	2	Required	0			
			Are	a Courses	2	General Health and Oral Sciences II	2	Required		0		
					Δ.	From Courses in Arts and Humanities / Social Sciences (Note 2)	1 or 2	Elective/ required	\circ	0		
				Communication	2	Communication Basic I	1		0			
				Basic		Communication Basic II	1			0		
		S	English	Communication I		Communication I A	1	Required	0			
		Subjects	English	Communication 1	2	Communication IB	1	(Note 3) (Note 4)	0			
		ge Su		Communication II		Communication II A	1			0		
		Language		Communication II	2	Communication IIB	1			0		
	jects	oreign La				Basic Foreign Language Subjects I	1		0			
ects	ımon subjects	Fore		rogram Languages have to select one		Basic Foreign Language Subjects II	1	Elective/	0			
ı Subje	Commo			from German, French nd Chinese.)	4	Basic Foreign Language Subjects III	1	required (Note 5)		0		
Arts Education Subjects)				,	Basic Foreign Language Subjects IV	1			0		
rts Edi		It	nformation	and Data Sciences	2	Introduction to Information and Data Sciences	2	Required (Note 6)	0			
Liberal A			S	ubjects	')	From courses in Information and Data Sciences Subjects	2	Elective/ required		0		
Lib						Health and Sports Sciences	2		\circ	0		
			Hoolth and	l Sports Subjects	2	Practicum in Sports A	1	Elective/	\circ	0		
			ricaitii and	i sports subjects		Practicum in Sports B	1	required	\circ	0		
						Sports Theory and Exercise	1		\circ	0		
			Social Coo	peration Courses	0		1 or 2	Free elective	0	0		
					2	Psychology for Medical Care Workers	2	Required (Note 7)		0		
					2	Development of International Collaboration in Medical Science	2	Required	0			
						Foundation biology for life science (Note 8)	2		0			
						Cell Science	2	. Elective/		0		
			Basic Sub	pjects	4	General Chemistry	2	required	0			
						Foundation physics for life science (Note 9)	2	(Note 10)	0			
						Fundamental Physics I	2			0		
					2	Basic Calculus	2	Elective/	0			
						Basic Linear Algebra	2	required		0		
			Total	1	40							

- Note 1: Semesters marked with o are the standard semesters for taking related subjects. If you failed to obtain the credit(s) in said semester, you may take the subject again in later semesters. Since the semester in which the subject is actually provided may be changed, you should confirm the accurate semesters by the relevant documents such as annual class tables for Liberal Arts Education.
- Note 2: If you acquire excessive credits from Elective/required subjects of Information and Data Sciences Subjects, within 4 credits of them will be considered as credits of Courses in Arts and Humanities / Social Sciences in Area Courses.
- Note 3: If you have obtained more than the required credits by taking the classes of Area Courses and Social Cooperation subjects which the Language of Instructions are [E: English] on Syllabus, you can substitute for English credits (6 credits) necessary for graduation. For details, see the items related to Liberal Arts Education in the Hand book for Students.
- Note 4: You can substitute the credits which you have obtained by taking the "Online English Seminar I, II & III" based on self-learning for English credits (6 credits) necessary for graduation. Also, there is a Credit Transfer System based on foreign language proficiency tests and language training. For details, see the items related to English in Liberal Arts Education and "Handling of Credit Accreditation Based on Foreign Language Proficiency Tests, etc." in the Hand book for Students.
- Note 5: There is a Credit Transfer System based on foreign language proficiency tests. For details, see the items related to English in Liberal Arts Education in the Hand book for Students.
- Note 6: When failing to earn the credit for "Introduction to Information and Data Sciences" is it allowed to take the subject from courses in Information and Data Sciences Subjects.
- Note 7: Only when failing to earn the credit for "Psychology for Medical Care Workers" is the credit for the subject "Psychology A" or "Psychology B" accepted as that for the information subjects required for graduation (2 credits).
- Note 8: Students who did not take the subject "Biology" in the Common Test for University Admissions are required to take the subject "Foundation biology for life science."
- Note 9: Students who did not take the subject "Physics" in the Common Test for University Admissions are required to take the subject "Foundation physics for life science." Note 10: It is required to choose two groups from the subject groups of biology, chemistry, and physics and to earn credit for one subject for each chosen group.
- Note 11: Those who can choose "Foundation Mathematics for Health Science" must not have taken Mathematics III in high school etc. □

Sheet 1-2

Table of Registration Standards for Specialized Education Subjects, School of Dentistry

<Bachelor's Program in Oral Engineering>

<u><ba< u=""></ba<></u>	che	lor's	s Program in Oral Engineering>	Ive :	1						. 1	
Cub	ject			Minimum No. of		Year	in wh	ich th	e subj	ect is t	aken	
	pe pe		Class Subject	credits	1st g	grade	2nd g	grade	3rd g	grade	4th grade	Note
- 5	PC			required	1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester	7th semester 8th semester	
		0	Introductory course for oral engineering	1	1							
		0	Anatomy and Oral Anatomy	2	2							
		0	Tooth Morphology	1			1					
		0	Basic Class of Oral Science	1			1					
		0	Oral Histology	2			2					
		0	Practice on Oral Anatomy I	1			1					
	es	0	Practice on Oral Anatomy II	1			1	1				
	Basic Specialized Courses	0	Stmatognathic System and Function	2			2	1				
	d C	0	Practice on Stmatognathic System and Function	1			1					
	lize	0	Physiology and Oral Physiology	2		2	-					
	ecia	0	Pharmacology and Dental Pharmacology	2			2					
	Sp	0	Microbiology and Oral Microbiology	2			2					
	asic	0	Pathology and Oral Pathology	2			2					
	В	0	Immunology	1			1					
			Dental Health	2			2					
			Social Dentistry	1				1				
		0	Clinical Medicine	2			1	1		2		
		0	Medical Ethics	1			1					
		0	Basic Biochemistry (included Food Science)	2			2					
	-	0	Oral Surgery and Anesthesiology I	1					1			
		_	Oral Surgery and Anesthesiology II	1					1			
		0	Endodontology	1				1	1			
		0	Periodontology	1				1				
Σ		0	Team Care for Oral Health	1				1	1			
ject			Dentistry for Persons with Disabilities	2					2			
Sub		0		2					2			
ion		0	Lifestyle-related Dentistry and Geriatric Dentistry Laws and Regulations for Dental Technicians (included Social Security System)	1						1		
Specialized Education Subjects		0	Quality and Safety Management in Dentistry	1					1	1		
Εđι		0	Medical Informatics	2				2	1			
zed		0	Health Science on Sports Dentistry and Temporomandibular	1					1			
iali		0	Dental Material	1			1		1			
Spec		0	Biomaterials	1			1					
01		0	Practice on Biomaterial	1			1					
		0	Practice on Applied Biomaterial	1			-				1	
	×	0	Precision Casting Science	2			2				1	
	ırse	0	Practice on Precision Casting Science	1			-	1				
	ο̈	0	CAD/CAM System Engineering	1		1		1				
	zed	0	Medical System Engineering	1		1			1			
	iali	0	Practical Training on Digital Dentistry	1					1	1		
	Specialized Courses	0	Overview of Oral Engineering I	1					1			
	0,	0	Overview of Oral Engineering II	1					1			
		0	Medical Equipment	1				1	1			
		0	Pediatric Dentistry	1				1	1			
		0	Practice of Pediatric Dentistry	1					1	1		
		0	Orthodontics	2			-		2	1		
		0	Practice of Orthodontics I	1						1		
		0	Practice of Orthodontics I	1			-			1		
		0	Crown Restoration and Health Engineering I	1		1				1		
		0	Crown Restoration and Health Engineering I	2		1	2					
		0	Crown Restoration and Health Engineering III	1			<u> </u>	1				
		0	Practice in Crown Restoration and Health Engineering (Inlay)	1			1	1				
		0	Practice in Crown Restoration and Health Engineering (Inlay) Practice in Crown Restoration and Health Engineering (Crown I)	1			1	1				
		0	Practice in Crown Restoration and Health Engineering (Crown I)	1				1				
i		0	Practice in Crown Restoration and Health Engineering (Crown II) Practice in Crown Restoration and Health Engineering (Bridge I)	1			-	1	1			
		0	Practice in Crown Restoration and Health Engineering (Bridge II)	1					1			
		\odot	ractice in Crown Restoration and Health Eligineering (Bridge II)	1					1			

<Bachelor's Program in Oral Engineering>

G 1			Minimum		Year	in wh	ich th	e subje	ect is t	aken		
	ject pe	Class Subject	No. of credits	1st g	grade	2nd g	grade	3rd g	grade	4th gr	ade	Note
ty	рс		required	1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester	7th semester	8th semester	
		Practice in Crown Restoration and Health Engineering (Facing Crown and Implant Superstructure II)	1					1				
		Practice in Crown Restoration and Health Engineering	1								1	
		© Removable Denture and Health Engineering (Complete Denture)	2		2							
		© Removable Denture and Health Engineering (Partial Denture)	2			2						
		Practice of Removable Denture and Health (Complete Denture)	2				2					
		Practice of Removable Denture and Health (Partial Denture)	2				2					
		Practice of Removable Denture and Health (Anaplastology I)	1					1				
		Practice of Removable Denture and Health (Anaplastology II)	1					1				
		Practice of Removable Denture and Health (Implant Superstructure)	1						1			
sts		Practice of Removable Denture and Health	1								1	
Specialized Education Subjects		© Esthetic Dentistry	1				1					
ı Su	Specialized Courses	Practice on Medical Design and Engineering	1								1	
ıtioı	Con	Practice of Oral Process Engineering	1								1	
duce	pez	Clinical Practice in Oral Health Engineering	13						1	6	6	
d E	iali	Medical Design Engineering I	1						1			
lize	bec	Medical Design Engineering II	1						1			
ecia	<i>S</i> 2	Disaster Dentistry and Forensic Odontology	1						1			
Sp		O Dysphagia Rehabilitation	1					1				
		Special Study for Graduation	9						6	2	1	
		Special Course in Rehabilitation Make Up	1					1				
		© Research Start-Up	1				1					
		Seminar of International Dentistry A	1									Offered in odd- numbered semesters.Can be taken repeatedly.
		Seminar of International Dentistry B	1									Offered in even- numbered semesters.Can be taken repeatedly.
				3	6	27	17	22	16	8	12	
		Total	111	9	9	4	4	3	8	20)	

indicates required subjects

Necessary credits for graduation: 151 credits

Liberal Arts Education Subjects		Specialized Education Subjects	
Peace Science Courses	2 credits	Basic Specialized Courses	24 credits
Basic Courses in University Education	4 credits	Specialized Courses	87 credits
Common subjects			
Area Courses	8 credits		
Foreign Languages			
English	6 credits		
Non-English Foreign Languages	4 credits		
Information and Data sciences Subjects	4 credits		
Health and Sports Courses	2 credits		
Foundation Courses	10 credits		
Liberal Arts Education Subjects	40 credits	Specialized Education Subjects	111 credits

Academic achievements of Bachelor's Program in Oral Engineering

Relationships between the evaluation items and evaluation criteria

		Academic achievements		Evaluation criteria	
		Evaluation items	Excellent	Very Good	Good
	(1)	Knowledge and understanding of liberal arts such as humanities and natural science	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
	(2)	The knowledge and understanding on foreign languages and culture	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
	(3)	Knowledge and understanding on principles of medicine	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
Knowledge and Understanding	(4)	Knowledge and understanding of basic behavior as a dental professional (a dental technician) Knowledge and understanding of social dentistry	Being able to correctly explain all contents of each subject, and develop them deepening the learning. Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject. Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject. Being able to explain almost all contents of each subject.
l Unde	(6)	Knowledge and understanding of life science	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
ge and	(7)	Knowledge and understanding of dental materials and biomaterials	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
Knowled	(8)	Knowledge and understanding of diseae prevention, treatment, diagnosis, and medical check-up concerning dentistry and other related studies	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
	(9)	Understanding and knowledge of dental technician (dental technology)	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
		The knowledge and understanding on related engineering (information processing, CAD/CAM, ME(medical engineering), system engineering, management)	Being able to correctly explain all contents of each subject, and develop them deepening the learning.	Being able to correctly explain all contents of each subject.	Being able to explain almost all contents of each subject.
	(1)	Communication skills as a dental professional (a dental technician)	further develop studies. In addition, with regard to reports, to be able to consider phenomenon objectively and to have the ability to objectively assess future tasks.	students learn in the training based on principles. In addition, to be able to consider phenomena subjectively in reports.	To be able to develop what students learn in hands-on training. Also, to attend these activities with good attitudes. Also, to be able to describe phenomena subjectively.
	(2)	Abilities and skills concerning life science, materials technology, and social dentistry	participate proactively in these activities, intending to further develop studies.	To attend hands-on training with good attitudes. Also, to further develop what students learn in the training based on principles. In addition, to be able to consider phenomena subjectively in reports.	To be able to develop what students learn in hands-on training. Also, to attend these activities with good attitudes. Also, to be able to describe phenomena subjectively.
Abilities and Skills		The ability*skills and attitude related to prevention* examination*diagnosis*treatment of diseases in oral*maxillofacial region	participate proactively in these activities, intending to further develop studies.	To attend hands-on training with good attitudes. Also, to further develop what students learn in the training based on principles. In addition, to be able to consider phenomena subjectively in reports.	To be able to develop what students learn in hands-on training. Also, to attend these activities with good attitudes. Also, to be able to describe phenomena subjectively.
	(4)	The capacity and attitude necessary for practicing specialized fields of dental technicians (dental technique) as a dental team	participate proactively in these activities, intending to further develop studies.	To attend hands-on training with good attitudes. Also, to further develop what students learn in the training based on principles. In addition, to be able to consider phenomena subjectively in reports.	To be able to develop what students learn in hands-on training. Also, to attend these activities with good attitudes. Also, to be able to describe phenomena subjectively.
		The ability and skills to apply related engineering (information processing, CAD/CAM, ME(medical engineering), system engineering, management, biotechnology)	participate proactively in these activities, intending to further develop studies.	To attend hands-on training with good attitudes. Also, to further develop what students learn in the training based on principles. In addition, to be able to consider phenomena subjectively in reports.	To be able to develop what students learn in hands-on training. Also, to attend these activities with good attitudes. Also, to be able to describe phenomena subjectively.
	(1)	Comprehensive learning ability and behavior as a dentist, which is to voluntarily learn over a course of life	As a dental technician, to be able to learn independently, proactively, and continuously.	As a dental technician, to be able to learn independently and proactively.	As a dental technician, to be able to learn independently.
bilities	(2)	oral*maxillofacial region	investigation, diagnosis, treatment and prevention in oral maxillofacial region and make an appropriate action and judgement.	Being able to generalize knowledge in related to investigation, diagnosis, treatment and prevention in oral maxillofacial region and make an appropriate action and judgement.	Being able to generalize knowledge in related to investigation, diagnosis, treatment and prevention in oral maxillofacial region.
Comprehensive Abilities	(3)	The comprehensive capacity and attitude necessary for practicing specialized fields of dental technicians (dental technique) as a dental team		Being able to conduct dental techniques encouraging appropriately based on understanding each professional roles.	Being able to conduct dental techniques acknowledging being a member of a team
Comprel	(4)	Comprehensive ability to separate necessary and unnecessary information, summarize and output it	•	After collecting, logically summarizing and analyzing information, to be able to output it with speculation.	To be able to output information which are collected and summarized.
		The general ability necessary to discover the issues on oral engineering and conduct research planning promotion result analysis result presentation	Being able to discover oral engineering issues and plan *promote the research, as well as analyze and present the results.	Being able to discover oral engineering issues and plan *promote the research, as well as present the results.	Being able to plan present the research on oral engineering issues.
	1	<u>l</u>		<u>l</u>	<u>I</u>

Placement of the Liberal Arts Education in the Major Program

Students are expected to form the academic foundation required for specialized education, study wide range of subjects regarding human and social sciences and foreign languages, acquire knowledge, and foster an intellectual curiosity and the ability to take action. In addition, they are expected to acquire communication skills, a cooperative mindset, and information gathering abilities in order to establish the basis for personal development as a medical staff.

											17	1 1	177 1	. 1.]	Evaluati	ion iter	ms		A 1 *1*.*	1.6	v1 ·11								4 1 ·1·	.•			Total
					-	1)	- 11	<u>)</u>	(2)	1		nowledg (5	ge and Und		ng (7)	<u>, </u>	(0)	ı	(0)		(10)	(1)		Abiliti	es and S		4)	(5)		(1)			ehensive (3)	Abilit T	$\frac{\text{ties}}{(4)}$		(5)	weight
G 1: 4					Weighte	1)	Weighte	2) Wei	ighte (3)		4) I		/	(6)	()	,	(8)		(9)		(10)	(/	(2)	Weig	(3)	\	. /	(5)	Weight	(1)	(2	/	\ /	Wei	()		` '	d valu
Subject type	Class Subject	No. of credits	Type of course registration	semesters	dvalues	Weighte	dvalues	Weighte dval	lues Weight	dvalues	Weighte	dvalues	Weighte dvalues	Weighte	dvalues V	Veighte dv	alues W	eighte dva	alues Weigh	dvalues	Weighte	dvalues	Weighte d	dvalues Wei	ghte dvalu	ues Weight	dvalues	Weighte	Weighte dvalues Weight of dvalue	dvalues	Weighte	dvalues	Weighte dy	values Wei	ighte dval	lues We	ighte dvalu	es Weighte	te evalua
type					of evaluatio		of evaluatio	dvalues of of eval	dvalues	of evaluatio	dvalues of	of control	lvalues of evaluation	dvalues o of	of d evaluatio o	values of evalues	dv aluatio of	values of eval	dvalue aluatio of	es of evaluati	dvalues io of	of evaluatio	dvalues of	of dvaluatio of	ues of evalu		of evaluation	dvalues of	of dvalue evaluatio of	es of evaluati	dvalues of	of evaluatio	dvalues of ev	f dvalu valuatio of	lues of eval	uatio of	llues of evalua	dvalues atio of	on iter
					n items in the	evaluatio	n items in the	evaluatio n ite n items in th		io n items in the	evaluatio n items		evaluatio n items in the	evaluatio n items		valuatio n i		raluatio n ito		n items in the	evaluatio	n items	evaluatio r	n items evaluation the n item	uatio n iter			evaluatio n items	n items evalua in the n item	n items in the	evaluation items		evaluatio n n items in	items evalu	luatio n ite	ems eval	luatio n item in the	ns evaluati n items	in the
					subject	II Iteliis	subject	subj		subject	II Items	subject	subject		subject		oject	sub		subject	ii iteliis	subject		subject	subje		subject		subject	subject		subject		ubject	subj		subjec		subject
	Peace Science Courses	2	Required	3	100	1																																	100
	Basic Courses in University Education	4	Required	1	100	1																																	100
T 1 1 A .	Area Courses	8	Required	1,2	100	1																																	100
Liberal Arts Education	Foreign Language Subjects	10	Required	1,2			100	1																															100
Subjects	Information and Data Sciences Subjects	4	Required	1,2													+			100	1											+							100
	Health and Sports Subjects	2	Required	1,2	100	1																																	100
	Basic Subjects	10	Required	1,2	100	1																										+					+		100
		10		1,2	100	1				50	1						+					50	1									+-+							
	Introductory course for oral engineering	1	Required	1						50	1											50	1									+-+							100
	Anatomy and Oral Anatomy	2	Required	l									100	1																		+-+							100
	Tooth Morphology	1	Required	3									100																			\Box							100
	Basic Class of Oral Science	1	Required	3									100																			$\perp \perp \downarrow$							100
	Oral Histology	2	Required	3									100	1																		igsquare							100
	Practice on Oral Anatomy I	1	Required	3																							100	1											100
	Practice on Oral Anatomy II	1	Required	4																							100	1				1 /							100
	Stmatognathic System and Function	2	Required	3														1	100 1																				100
	Practice on Stmatognathic System and Function	1	Required	3																							100	1											100
	Physiology and Oral Physiology	2	Required	2									100	1																									100
	Pharmacology and Dental Pharmacology	2	Required	3													100	1																					100
	Microbiology and Oral Microbiology	2	Required	3									100	1																		+							100
	Pathology and Oral Pathology	2	Required	3									100	1			100	1														+					+		100
		1		2									100	1			100	1														+-+					-		100
	Immunology	1	Free elective	3									100	1			100	1																					
	Dental Health	2	Free elective	3			-					100					100	1				-										+					-		100
	Social Dentistry	1	Required	4								100	1																			4							100
	Clinical Medicine	2	Free elective	6													100	1														4/							100
	Medical Ethics	1	Required	3				1	00 1																														100
Specialized	Basic Biochemistry (included Food Science)	2	Required	3									100	1																									100
Education	Oral Surgery and Anesthesiology I	1	Required	5													100	1														1 /							100
Subjects	Oral Surgery and Anesthesiology II	1	Required	5													100	1																					100
	Endodontology	1	Required	4													100	1																					100
	Periodontology	1	Required	4													100	1																					100
	Team Care for Oral Health	1	Required	5						100	1																												100
	Dentistry for Persons with Disabilities	2	Required	5	1												100	1														\vdash							100
	Lifestyle-related Dentistry and Geriatric	2	Required	5													100	1														+							100
	Dentistry Laws and Regulations for Dental	-																-														+							
	Technicians (included Social Security System)	1	Required	6						100	1																												100
	Quality and Safety Management in Dentistry	1	Required	5																					10	00 1													100
	Medical Informatics	2	Required	4																100	1																		100
	Health Science on Sports Dentistry and	1	Required	5																							100	1				\Box							100
	Temporomandibular	1		3																							100	1				\perp							
	Dental Material	1	Required	3											100	1																\coprod							100
	Biomaterials	1	Required	3											100	1																igsquare							100
	Practice on Biomaterial	1	Required	3																				100	1														100
	Practice on Applied Biomaterial	1	Required	8																							100	1											100
	Precision Casting Science	2	Required	3											100	1																							100
	Practice on Precision Casting Science	1	Required	4																				100	1														100
	CAD/CAM System Engineering	1	Required	2																100	1																		100
	Medical System Engineering	1	Required	5																100												+							100
	Integree System Engineering	1	required	J																100	1											1							100

							· · · · · · · · · · · · · · · · · · ·			1/ 1	1 177 1	, 1							Eva	uation it	ems		A 1 '1'	·: 10	1 '11			1			<u> </u>		A 1 '1'4'				Total
					(1)		2)	(3)	(4)		lge and Und 5)	erstand: (6)	ing (7	<u>') </u>	(8)	<u> </u>	(9)		(10)		(1)	(2)	ADIII	ties and S (3)		4)	(5)	(1)	(2)		ehensive A		(4)	(5)		weighte
Subject		No of	Type of course		Weighte	Weighte	Weight	e	Weighte	Weighte	Weight	e	Weighte	v	Veighte			W	·		\ /	Weighte		eighte	Weighte		Weighte	Weighte	1)			<u>`, </u>	Weighte	\ /	Weighte		d values
type	Class Subject	credits	Type of course registration		dvalues Weighted dvalues		Weighte dvalues dvalues of	Weighte dvalues	dvalues Wei	ghte dvalues	Weighte dvalues dvalues of	Weighte dvalues	dvalues	Weighte d	values V	Veighte dva	ulues W	eighte d	values Wo	ighte dvalue	Weighte dvalues	e dvalues Weig	ghte dva	alues Weighte	dvalues	Weighte	dvalues Weigh of dvalue	te dvalues s of	Weighte dvalues	dvalues V	Veighte dy	values Weight dvalues	nte dvalues	Weighte	dvalues W	Weighte Ivalues	or evaluati
					evaluatio of	evaluatio	of evaluati	io of	evaluatio of	evaluatio	of evaluati	of of	evaluatio	of e	valuatio o	f eva	luatio of	ev	valuatio of	evalua	tio of	evaluatio of	eva	aluatio of	evaluatio	of	evaluatio of	evaluatio	of	evaluatio o	of ev	aluatio of	evaluati	tio of	evaluatio of	of C	on item
					n items evaluation in the n items	io n items in the	evaluatio n items n items in the		n items evaluation the n ite	ms in the	evaluatio n items n items in the			evaluatio n n items ir		valuatio n ito items in the		aluatio n tems in		luatio n items ems in the	n items	o n items evaluin the n item			n items in the	evaluatio n items	n items evalua in the n items	in the	evaluatio n items		valuatio n items in	items evaluat the n items	ntio n items in the	n items	in the n	evaluatio in items	in the subject
					subject	subject	subject		subject	subject	subject		subject	SI	ubject	sub	ject		ıbject	subject		subject	sub	pject	subject		subject	subject		subject		ıbject	subject		subject	s	ubject
	Practical Training on Digital Dentistry	1	Required	5,6																							100 1										100
	Overview of Oral Engineering I	1	Required	5												1	100	1																			100
	Overview of Oral Engineering II	1	Required	5												1	100	1																			100
	Medical Equipment	1	Required	4															100	1																	100
	Pediatric Dentistry	1	Required	5											100	1																					100
	Practice of Pediatric Dentistry	1	Required	6																					100	1											100
	Orthodontics	2	Required	5												1	100	1																+			100
	Practice of Orthodontics I	1	Required	6													100	1							100	1							_				100
	Practice of Orthodontics II	1	-	6																					100	1							_				100
	Crown Restoration and Health Engineering	1	Required Required	2												1	100	1							100	1									-+		100
	I Crown Restoration and Health Engineering	2	+	2									\vdash				100	1																			100
	II Crown Restoration and Health Engineering	1	Required	3														1																			
	III Practice in Crown Restoration and Health	1	Required	4												ı l	100	1															_				100
	Engineering (Inlay)	1	Required	3									<u> </u>												100	1											100
	Practice in Crown Restoration and Health Engineering (Crown I)	1	Required	4																					100	1											100
	Practice in Crown Restoration and Health Engineering (Crown II)	1	Required	4																					100	1											100
	Practice in Crown Restoration and Health	1	Required	5									\vdash												100	1											100
	Engineering (Bridge I) Practice in Crown Restoration and Health	1	Required	5									\vdash												100	1							+				100
	Engineering (Bridge II) Practice in Crown Restoration and Health	-	required										Н												100	1				-			_				
	Engineering (Facing Crown and Implant Superstructure I)	1	Required	5																					100	1											100
	Practice in Crown Restoration and Health Engineering (Facing Crown and Implant Superstructure II)	1	Required	5																					100	1											100
Specialized	Practice in Crown Restoration and Health Engineering	1	Required	8																					100	1											100
Education Subjects	Removable Denture and Health Engineering (Complete Denture)	2	Required	2												1	100	1																			100
	Removable Denture and Health Engineering (Partial Denture)	2	Required	3												1	100	1																			100
	Practice of Removable Denture and Health (Complete Denture)	2	Required	4																					100	1											100
	Practice of Removable Denture and Health (Partial Denture)	2	Required	4																					100	1				\exists							100
	Practice of Removable Denture and Health (Anaplastology I)	1	Required	5																					100	1				\exists							100
	Practice of Removable Denture and Health	1	Required	5									H		1		\top								100	1				\exists							100
	(Anaplastology II) Practice of Removable Denture and Health	1	Required	6									$\mid \cdot \mid$												100	1											100
	(Implant Superstructure) Practice of Removable Denture and Health	1	Required	8																					100	1				-			_				100
	Esthetic Dentistry	1	Required	4											100	1																			-+		100
	Practice on Medical Design and	1	Required	Ŷ																										50	1	50 1	+-				100
	Engineering Practice of Oral Process Engineering	1	Required	<u> </u>																										50	1	50 1	_				100
	Clinical Practice in Oral Health	13	Required	6-8																					30	1				35	1	35 1	_		-+		100
	Engineering Medical Design Engineering I	1.0	Required	6																					30	1		50	1	33	1		50	1			100
	Medical Design Engineering II	1	Required	6																								50	1				50	_			100
	Disaster Dentistry and Forensic	1	Required	6						100	1																	30	1				30	1			100
	Odontology Dysphagia Rehabilitation	1	Required	5						100	1				100	1																	_		+		100
	Special Study for Graduation	Q O	Required	6-8											100	1												40	1				30	1	30	1	100
	Special Course in Rehabilitation Make Up	1	Free elective	5																			1	100 1				70	1				30	1	30	1	100
	Research Start-Up	1	Required	4																				100 1									+-				100
	Seminar of International Dentistry A	1	Free elective	1,3,5,7,9,11		60	1																	1						+			40	1	+		100
	Seminar of International Dentistry B	 	Free elective			60	1																										40		\rightarrow		100
	Seminar of international Dentistry B	1	rice elective	۷,4,0,8,10,12		60	1																										40	1			100

Curriculum Map of Program of Oral Engineering

Academic achievements		1st grade	2nd gr	rade	3rd gra	ade	4th g	rade
Evaluation items	1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester	7th semester	8th semester
	() Basic Courses in University Education	() Area Courses	() Peace Science Courses					
Knowledge and understanding of liberal arts	() Area Courses	() Health and Sports Subjects						
such as humanities and natural science	() Health and Sports Subjects() Basic Subjects	() Basic Subjects						
	() =							
The knowledge and understanding on foreign	() Foreign Language Subjects	() Foreign Language Subjects	() Seminar of International Dentistry A (Seminar of International Dentistry B (Seminar of International Dentistry A (Seminar of International Dentistry B (Seminar of International Dentistry A	() Seminar of International Dentistry B
languages and culture	Seminar of International Dentistry A	() Seminar of International Dentistry B						
			() Medical ethics					
Knowledge and understanding on principles of medicine								
of medicine								
Knowledge and understanding of basic	() Introductory course for oral engineering				Team Care for Oral Health	Laws and Regulations for Dental Technicians (included Social Security System)		
behavior as a dental professional (a dental technician)								
,) Carial Daviston		Disease Destistance of Fernancia Odentale and		
Knowledge and understanding of social dentistry) Social Dentistry		Disaster Dentistry and Forensic Odontology		
	() Anatomy and Oral Anatomy	() Physiology and Oral Physiology	() Basic Class of Oral Science					
			() Tooth Morphology					
Knowledge and understanding of life science			() Histology and Oral Histology					
ranowiedge and understanding of the serence			() Microbiology and Oral Microbiology() Immunology					
			() Basic Biochemistry (included Food Science)					
			() Dental Material					
Knowledge and understanding of dental			() Dental Material () Biomaterials					
materials and biomaterials			() Precision Casting Science					
			() Pharmacology and Dental Pharmacology () Endodontorogy (Clinical Medicine		
Knowledge and understanding of diseae			() Pathology and Oral Pathology() Oral Health() ()) Periodontology (Oral Surgery and Anesthesiology II Dentistry for Persons with Disabilities			
prevention, treatment, diagnosis, and medical			() Grai Ficantii (Esthetic Dentistry (Dentistry for Persons with Disabilities Lifestyle-related Dentistry / Geriatric Dentistry			
check-up concerning dentistry and other related studies					Pediatric Dentistry			
					Dysphagia Rehabilitation			
		Crown Destauration and Health Engineering I	() Structographic System and Evention () Crown Restoration and Health Engineering III (Overview of Oral Engineering I			
Understanding and knowledge of dental		() Crown Restoration and Health Engineering I Removable Denture and Health Engineering (Comp	() Stmatognathic System and Function () Strawn Restarction and Health Engineering II	Crown Restoration and Health Engineering III	Overview of Oral Engineering I			
technician (dental techonology)		Denture)	Crown Restoration and Health Engineering II Removable Denture and Health Engineering (Partial		Overview of Oral Engineering II Orthodontics			
The knowledge and understanding on related	() Information and Data Sciences Subjects	() Information and Data Sciences Subjects	Denture)) Medical Informatics (Medical System Engineering			
engineering (information processing,	() Information and Batta Before Badjects	() CAD/CAM System Engineering) Medical Equipment	Areaical System Engineering			
CAD/CAM, ME(medical engineering), system engineering, management)		() Cribi Critii System Engineering) Medical Equipment				
Communication skills as a dental professional (a dental technician)								
,			() Practice on Biomaterial (Desertion on Brasinian Continue Spinner				
Abilities and skills concerning life science,			() Practice on Biomaterial () Practice on Precision Casting Science				
materials technology, and social dentistry								
The ability • skills and attitude related to) Research Start-Up (Quality and Safety Management in Dentistry			
prevention • examination • diagnosis • treatment of diseases in oral • maxillofacial					Special Course in Rehabilitation Make Up			
region								
			() Practice on Oral Anatomy I (Practice on Oral Anatomy II	Health Science on Sports Dentistry and Temporomandibular	Practice of Pediatric Dentistry (Clinical Practice in Oral Health Engineering	() Practice on Applied Biomaterial
			() Practice on Stmatognathic System and Function (Practice in Crown Restoration and Health Engineering	Practice in Crown Restoration and Health Engineering) Practice of Orthodontics I		() Practice in Crown Restoration and Health Engineer
			Practice in Crown Restoration and Health Engineering	(Crown I) Practice in Crown Restoration and Health Engineering	(Bridge I) Practice in Crown Restoration and Health Engineering			
The capacity and attitude necessary for			(Inlay)	(Crown II)	(Bridge II)	Practice of Orthodontics II		Practice of Removable Denture and Health
practicing specialized fields of dental technicians (dental technique) as a dental				Practice of Removable Denture and Health (Complete Denture)	Practice in Crown Restoration and Health Engineering (Facing Crown and Implant Superstructure I)	Practice of Removable Denture and Health (Implant Superstructure)		() Clinical Practice in Oral Health Engineering
team				Practice of Removable Denture and Health (Partial	Practice in Crown Restoration and Health Engineering	Clinical Practice in Oral Health Engineering		
				Denture)	(Facing Crown and Implant Superstructure II) Practice of Removable Denture and Health			
					(Anaplastology I)			
					Practice of Removable Denture and Health (Anaplastology II)			
The ability and skills to apply related engineering (information processing,					Practical Training on Digital Dentistry (Practical Training on Digital Dentistry		
CAD/CAM, ME(medical engineering),								
system engineering, management, biotechnology)								
Comprehensive learning ability and behavior	() Introductory course for oral engineering				() Medical Design Engineering I () Special Study for Graduation	() Special Study for Graduation
as a dentist, which is to voluntarily learn over a course of life					() Medical Design Engineering II		
						Special Study for Graduation Clinical Practice in Oral Health Engineering	Clinical Practice in Oval Health Engineer	() Practice on Medical Design and E.
The general ability and attitude in related to investigation, diagnosis, treatment and						Clinical Practice in Oral Health Engineering () Clinical Practice in Oral Health Engineering	() Practice on Medical Design and Engineering() Practice of Oral Process Engineering
prevention in oral • maxillofacial region								() Clinical Practice in Oral Health Engineering
The comprehensive capacity and attitude						Clinical Practice in Oral Health Engineering (Clinical Practice in Oral Health Engineering	() Practice on Medical Design and Engineering
necessary for practicing specialized fields of								() Practice of Oral Process Engineering
dental technicians (dental technique) as a dental team								
								() Clinical Practice in Oral Health Engineering
Comprehensive ability to separate necessary	Seminar of International Dentistry A	() Seminar of International Dentistry B	() Seminar of International Dentistry A (Seminar of International Dentistry B	Seminar of International Dentistry A (Medical Design Engineering I Medical Design Engineering II	Seminar of International Dentistry A Special Study for Graduation	() Seminar of International Dentistry B
and unnecessary information, summarize and						Medical Design Engineering II Seminar of International Dentistry B) Special Study for Graduation	() Special Study for Graduation
output it) Special Study for Graduation		
The general ability necessary to discover the					() Special Study for Graduation () Special Study for Graduation	() Special Study for Graduation
issues on oral engineering and conduct research planning • promotion • result								
analysis • result presentation								
					1			İ

Program member list of Bachelor's Program in Oral Engineering

04/01/2025

Mail: Please add "@hiroshima-u.ac.jp"

Name	Position	Laboratory name	Mail
KAKU MASATO	Professor	Anatomy and Functional Restorations	mkaku
SHIMOE SAIJI	Associate Professor	Anatomy and Functional Restorations	shimoe
MURAYAMA TAKESHI	Professor	Medical System Engineering	murayatk
MINE YUICHI	Lecturer	Medical System Engineering	mine
NIKAWA HIROKI	Professor	Oral Biology & Engineering	hirocky
TAJI TSUYOSHI	Associate Professor	Oral Biology & Engineering	taji