

APPENDICES

**TECHNOLOGICAL EDUCATIONAL INSTITUTION OF ATHENS
FACULTY OF HEALTH AND CARING PROFESSIONS
DEPARTMENT OF DENTAL TECHNOLOGY**

Academic years: 2007-2008, 2008-2009 (Spring semester 2007-2008 and Winter semester 2008-2009)

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**TECHNOLOGICAL EDUCATIONAL INSTITUTION OF ATHENS
FACULTY OF HEALTH AND CARING PROFESSIONS**

DEPARTMENT OF DENTAL TECHNOLOGY

STUDIES GUIDE



ATHENS 2009

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1. ABOUT THE DEPARTMENT

1.1 HISTORY

The Department of Dental Technology has been operating since 1983 according to the founding Law 1404/83, which set the structure and operation of the Technological Educational Institutions. It is the continuity of the Department of Dental Technologists, which had been operating since 1973 as a Department of the Centers of Higher Technical-Vocational Education. It belongs to the Faculty of Health and Caring Professions of the Technological Educational Institution of Athens and is the unique Department of its kind in Higher Education of Greece which offers complete training in the content of DENTAL TECHNOLOGY.

The *course content* of the Department of Dental Technology covers the discipline of application of scientific and technological knowledge in the field of Dental Prosthetic works in Fixed and Removable Prosthodontics as well as in Orthodontic appliances.

Students are admitted to the Department, in a number according to Ministerial Decisions, after seating the Panhellenic examinations successfully, or according to existing in force regulations about transfers and placement examinations.

The professional rights for the graduates of the Department have been determined by the Presidential Decree no. 83, Government Gazette 3717-2-1989 and according to Article 2 are as follows:

1. The graduates of the Department of Dental Technology of the Faculty of Health and Caring Professions, on the basis of their specialized scientific and technical knowledge, can be employed in the private and public sectors, as it is defined by the existing in force regulations, in all fields of dental, orthodontic and prosthetic fabrications for the restoration of oral cavity abnormalities.
2. More specifically, the graduates have the right to employment as either unit employees or self-employed in the following subject matters and activities:
 - α) Manufacture of every and any dental prosthetic work and orthodontic appliances, such as complete and partial dentures, inlays, crowns and bridges, with the current available specific materials, precision Attachments in removable prosthetic works for the restoration of oral cavity abnormalities. These works are exclusively carried out in the laboratory on the basis of impressions and the dentist's instructions, who monitors the works in order to check if his/her instructions are held.
 - β) Any professional activity that emerges from technology development and which is evidently covered by the discipline of their specialization.
3. They can work in all levels of education according to the current legislation. They can also be employed as members of research teams in matters of their specialization.
4. They can start, organize and run, with responsibility and on the basis of the current legislation, a dental laboratory.
5. They can practice the profession of dental technicians in the sphere of the above mentioned professional rights after obtaining the licensure granted by the Hellenic Ministry of Health and Welfare.

1.2. COURSE CONTENT

The new course content of the Department has been approved by the Presidential Decree 974/12-5-03, the main points of which are summarized below:

- THE DISCIPLINE OF DENTAL TECHNOLOGY

The course content of the Department of Dental Technology covers the discipline of application of scientific and technological knowledge in the field of dental prosthetic works in Fixed and Removable Prosthodontics as well as in Orthodontic appliances.

- MISSION OF THE DEPARTMENT

The Department aims at promoting the development and impartment of scientific and applied knowledge in the technology of biomaterials and in the methods of design and fabrication of dental prostheses and orthodontic appliances. Through teaching and application in a nearly real level (simulation with real cases), it provides the students with the necessary qualifications which ensure their complete background for a scientific and professional career and development.

Within the scope of its mission the Department

- a) follows up the international educational and scientific developments.
- b) expands international cooperation with Greek and foreign higher education institutions.
- c) cooperates with private and public entities related to its discipline.
- d) uses modern technology.
- e) carries out technological research.
- f) develops the students' skills and competencies which will render them competitive at national and international levels.
- g) is receptive to educational, economic and social changes at regional, national and international levels.
- h) sees to ensure quality assurance and upgrade studies offered by the Department
- i) cooperates with Greek universities and takes part in the organization of Postgraduate Programs.

- DESCRIPTION OF THE GRADUATE

Upon completion of their studies, the graduates of the Department are equipped with the necessary scientific and technological knowledge, skills and competencies in order to take action in their domain as responsible Dental Technicians.

- They undertake the responsibility of the organization and operation of a dental laboratory assuring quality and ensuring appropriateness of the dental prostheses fabricated in it.
- They choose the right appliances and instruments for the equipment of dental laboratories, take care of their maintenance and implement the recommended hygiene and safety rules.
- They stay updated on modern materials, choosing the right ones, with the necessary biological behavior, as well as the laboratory method they will apply as the case may need.
- They man the dental laboratory with specialized staff, which they supervise and to which they assign specific works according to their specialty.
- They design and fabricate all kinds of dental prostheses of Removable and Fixed Prosthodontics, in accordance with the dentist's written instructions, aiming at the maintenance or restoration of the balance of the stomatognathic system.
- They design and fabricate orthodontic appliances of different types, intraoral and extraoral, always in accordance with the instructions.
- They possess the basic principles of implant and maxillofacial prosthetics so they can follow specialized courses.
- In the context of teamwork they participate in groups with specialized dentists for the design and fabrication of the above mentioned prostheses.
- They conduct studies and take part in research.
- They can also work in all levels of education according to the existing in force legislation.

- STUDIES STRUCTURE

Studies in the Department of Dental Technology last eight (8) semesters. During the first seven (7) ones, studies include theory, laboratory work, seminars, introduction of new methods by specialized technicians and visits to selected laboratories.

The program of studies is based on the student's workload and ECTS credits are awarded in all semesters.

General Background Subjects (GBS) such as Biometry-Biostatistics, Biochemistry, Physics, Informatics, etc. are taught in the first semesters.

The Special Background Subjects (SBS) such as Dental Morphology, Oral and Lab Hygiene, Dental Biomaterials, etc. follow.

The Specialization Subjects (SS) include Removable Prosthodontics I, II and III, Fixed Prosthodontics I and II, Dental Ceramics I and II, Combined Prosthodontics – Attachments, Orthodontics, Implant Prosthetics, etc.

Finally, a special category of subjects comprises of the disciplines of Administration, Economy, Legislation and Humanistic Studies. The subjects that belong to this category are: Principles of Business Administration and Laboratory Organization, Professional Ethics, Sociology of Health, etc. The knowledge these subjects provide is necessary for the organization and administration of businesses, laboratories, corporations and services related to the dental technologist's specialty.

During the last semester, students have to prepare a dissertation on a current topic of applied research or on a subject directly related to their specialty. During the same semester, students have to complete practical work, which lasts six (6) calendar months and is supervised and assessed by a committee of the Department and is carried out in private and public dental laboratories.

1.3. DEPARTMENT ORGANIZATION AND ADMINISTRATION

The General Assembly comprises of the supreme collective administration body of the Department.

The Council of the Department comprises of the Executive Body of the Department and is constituted of the Head of the Department, the Sector Heads and student representatives. The Head of the Department is responsible for the educational and administrative operation.

For its administrative and educational operation, the Department is divided into two sectors:

SECTOR A' Fixed Prosthodontics

SECTOR B' Removable Prosthodontics

The Sector Heads have specific duties which are defined by the Founding Law for the Technological Educational Institutions 1404/83 and the current provisions.

1.4. STAFF OF THE DEPARTMENT

The permanent teaching staff members of the Department are:

1	Stavros Yannikakis	Dentist, Dr Dent	Professor
2	Eugenia Dimitropoulou	Dentist, Dr Dent	Professor
3	Aristeidis Galiatsatos	Dentist, Dr Dent	Assistant Professor
4	Stavros Kyparissidis	Dentist	Assistant Professor
5	Urania Boulouhou	Dentist /Orthodontist, Dr Dent	Assistant Professor
6	Anthony Prombonas	Dentist, Dr Dent	Assistant Professor
7	Panagiota Tsolka	Dentist, Dr Dent	Assistant Professor
8	Anna Zavola	Dentist, M.Sc.	Lab Instructor
9	Alexandra Ioannidou	Dentist, M.Sc.	Lab Instructor
10	Theodoros Balourdas	Dentist, M.Sc.	
11	Panagiotis Salamaras	Dentist, M.Sc.	Lab Instructor
12	Konstantinos Spyropoulos	Dentist, M.Sc., Dr Dent	Lab Instructor

The members of the Special Technical Staff are:

1	Ioanna Bimi	Dental Technician
2	Vaso Rebi-Bobori	Dental Technician
3	Maria Fountoulaki-Karakozi	Dental Technician

Good functioning of the Department also relies on temporary teaching staff, which belongs to either of the two Sectors depending on the subject they have been assigned to teach each semester.

The Secretariat of the Department provides administrative services in the implementation and accomplishment of the decisions taken by the collective bodies.

It comprises of the following administrative staff:

1. Aristeia Hrysikou-Xirouhaki
2. Nafsika Varsou
3. Maria Sakkiotou

1.5. MATERIAL-TECHNICAL INFRASTRUCTURE

The Department of Dental Technology has three 30-seat Prosthodontics laboratories fully equipped with dental lab benches, lab motors and the necessary new technology machinery and appliances.

It also has a 20-seat lab for metalceramics and an all-ceramic constructions, equipped with dental lab benches, ceramic furnaces, dental engines and handpieces and other appliances.

A laboratory with casting machines (centrifugal, electronic), sandblasters, dewaxing, preheating devices and welding devices.

Moreover, there are a 30-seat Morphology lab and a 30-seat Orthodontics lab, with the corresponding equipment.

Finally, it also has a multimedia classroom for 16 students, equipped with 16 PCs and 1 server and a 35-seat classroom equipped with audiovisual aids.

Recently, the Department has been equipped with a research lab which supports its research activity. More specifically, it is equipped with a fatigue testing machine, a wheatstone bridge for deformation measurements with strain gauges, a stereomicroscope and an abrasion tester.

In addition, during research projects, the lab equipment related to dental technology, with which students can fabricate matrices, models of different sizes and from various materials, model prosthetic works (complete dentures, bridges, removable partial dentures) and even more identical prosthetic works, which can be used in research as models, can also be used.

1.6. RESEARCH – PUBLICATIONS - CONFERENCES

The various research projects conducted by the teaching staff of the Department are either published in Greek and foreign journals or are presented at Greek and foreign conferences. Some of them have been approved or funded by the Education and Research Committee of Athens TEI.

The Department also cooperates with other Departments of Athens TEI (e.g. Civil Infrastructure Works Technology Dept.) with University Departments (e.g. Dental School of the University of Athens) and with the National Technical University (e.g. School of Electrical and Computer Engineering, Division of Computer Engineering and Informatics).

It has also participated in the Operational Programme Education and Primary Vocational Training II and III.

At present, research is mainly concerned with the technology in dental biomaterials and the study of their physical and mechanical properties and, moreover, studies on modern restoration techniques such as implants or the use of new dental appliances (Laser welding, titanium casting, etc.) are run.

2. PROGRAM OF STUDIES

The program comprises 38 subjects out of which 35 are compulsory [C] and 3 selective compulsory [SC]. They are distributed in eight [8] semesters, each of which includes 13 weeks.

The total teaching hours per week for all semesters range from 28 to 40 hours.

The subjects are distinguished in the following categories:

SUBJECT CATEGORIES

General Background Subjects (GBS)

				ECTS
1	OΔO101	Physics	C	5
2	OΔO102	Chemistry	C	3
3	OΔO105	Anatomy	C	7
4	OΔO203	Biology	C	5
5	OΔO204	Physiology	C	5
6	OΔO205	Informatics	C	5
7	OΔO303	Biochemistry	C	5
8	OΔO305	Biometry-Biostatistics	C	5

Administration, Economy, Legislation and Humanistic Studies (AELHS)

				ECTS
9	OΔO405	Professional Ethics	C	3
10	OΔO506	Principles of Business Administration and Laboratory Organization	C	3
11α	OΔO605	Entrepreneurship	SC	3
11β	OΔO606	Principles of Health Services Organization and Management		
12α	OΔO705	Sociology of Health	SC	3

Special Background Subjects (SBS)

				ECTS
1	OΔO103	Principles of Dental Technology	C	5
2	OΔO104	Dental Morphology	C	8
3	OΔO202	Dental Biomaterials I	C	5
4	OΔO302	Dental Biomaterials II	C	5
5	OΔO304	Physiology of the stomatognathic system– Occlusion	C	5
6	OΔO402	Prosthodontics and Aesthetics	C	5
7	OΔO404	Oral Microbiology	C	5
8	OΔO504	Oral and Lab Hygiene	C	3
9	OΔO505	First Aid	C	3
10	OΔO604	Methodology - Research	C	5

Specialization Subjects (SS)

				ECTS
1	OΔO201	Removable Prosthodontics I (O.O.)	C	10
2	OΔO301	Removable Prosthodontics II (M.O.)	C	10
3	OΔO401	Fixed Prosthodontics I	C	10
4	OΔO403	Orthodontics I	C	7
5	OΔO501	Fixed Prosthodontics II	C	9
6	OΔO502	Restoration of occlusion dysfunctions	C	5
7	OΔO503	Orthodontics II	C	7
8	OΔO601	Dental Ceramics I	C	10
9	OΔO602	Maxillofacial Prosthodontics	C	4
10	OΔO603	Implant Prosthodontics	C	8
11	OΔO701	Dental Ceramics II	C	8
12	OΔO702	Removable Prosthodontics III	C	8
13	OΔO703	Combined Prosthodontics – Precision attachments	C	8
14	OΔO704	English for Dental Technology	C	3
1	OΔO801	Dissertation	C	20

The total number of subjects is 38.

The subjects are distributed as follows:

13 (32,4%) General Background Subjects (GBS) together with the subjects of Administration, Administration, Economy, Legislation and Humanistic Studies (AELHS)

15 (40,5%) Specialization Subjects (SS) and

10 (27%) Special Background Subjects (SBS)

The total teaching hours are 179. Out of these, 107 are theory (T) and 72 lab (L). The ratio is theory (T) 60% = 106.5 and lab (L) 40% = 71.6

3. SUBJECT TIMETABLE

The weekly timetable is as follows:

SEMESTER I'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	EC TS
1	OΔO101	Physics	GBS	C	3		3	135	5
2	OΔO102	Chemistry	GBS	C	3		3	135	5
3	OΔO103	Principles of Dental Technology	SBS	C	3		3	135	5
4	OΔO104	Dental Morphology	SBS	C	4	5	9	255	8
5	OΔO105	Anatomy	GBS	C	3	2	5	165	7
Total					16	7	23	825	30

SEMESTER II'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	EC TS
1	OΔO201	Removable Prosthodontics I	SS	C	3	9	12	270	10
2	OΔO202	Dental Biomaterials I	SB S	C	3		3	135	5
3	OΔO203	Biology	GB S	C	3		3	135	5
4	OΔO204	Physiology	GB S	C	3		3	135	5
5	OΔO205	Informatics	GB S	C	3	2	5	165	5
Total					15	11	26	840	30

SEMESTER III'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	ECT S
1	OΔO301	Removable Prosthodontics II	SS	C	3	9	12	270	10
2	OΔO302	Dental Biomaterials II	SBS	C	4		4	180	5
3	OΔO303	Biochemistry	GBS	C	3		3	135	5
4	OΔO304	Physiology of the stomatognathic system - Occlusion	SBS	C	4		4	180	5
5	OΔO305	Biometry - Biostatistics	GBS	C	3		3	135	5
Total					17	9	26	900	30

SEMESTER IV'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	ECTS
1	OΔO401	Fixed Prosthodontics I	SS	C	3	9	12	270	10
2	OΔO402	Prosthodontics and Aesthetics	SBS	C	3		3	135	5
3	OΔO403	Orthodontics I	SS	C	3	3	6	180	7
4	OΔO404	Oral Microbiology	SBS	C	3		3	135	5
5	OΔO405	Professional ethics	AEL HS	C	2		2	90	3
Total					14	12	26	810	30

SEMESTER V'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	EC TS
1	OΔO501	Fixed Prosthodontics II	SS	C	2	9	11	225	9
2	OΔO502	Management of Occlusion and Dysfunctional Disorders of Stomatognathic System	SS	C	3		3	135	5
3	OΔO503	Orthodontics II	SS	C	3	3	6	180	7
4	OΔO504	Oral and Lab Hygiene	SBS	C	2		2	90	3
5	OΔO505	First Aid	SBS	C	2		2	90	3
6	OΔO506	Principles of Business Administration and Lab Organization	AEL HS	C	2		2	90	3
Total					14	12	26	810	30

SEMESTER VI'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	EC TS
1	OΔO601	Dental Ceramics I	SS	C	3	9	12	270	10
2	OΔO602	Oral & Maxillofacial Prosthodontics	SS	C	3		3	135	4
3	OΔO603	Implant Prosthodontics	SS	C	6		6	270	8
4	OΔO604	Methodology-Research	SBS	C	3		3	135	5
5α	OΔO605	Entrepreneurship	AEL HS	EY	2		2	90	3
5β	OΔO606	Principles of Health Services Organization and Management							
Total					17	9	26	900	30

SEMESTER VII'									
s/n	Code Number	Subject	SC	EM	T	L	Total	WL	EC TS
1	OΔO701	Dental Ceramics II	SS	C	3	4	7	195	8
2	OΔO702	Removable Prosthodontics III	SS	C	3	4	7	195	8
3	OΔO703	Combined Prosthodontics – Precision attachments	SS	C	3	4	7	195	8
4	OΔO704	English for Dental Technology	SS	C	3		3	135	3
5α	OΔO705	Sociology of Health	AEL H	EY	2		2	90	3
5β	OΔO706	Fundamentals of Marketing							
Total					14	12	26	810	30

SEMESTER VIII'				
s/n	Code Number	Subject	WL	ECTS
1	OΔO801	Dissertation	250	20
2	OΔO802	Practical training	500	10
Total			750	30

4. SYLLABI

4.1 GENERAL BACKGROUND SUBJECTS (GBS)

SUBJECT TITLE	PHYSICS
SUBJECT CODE NUMBER	OΔO101
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	I'
OBJECTIVE	
The aim of this subject is to introduce students to the general physical material properties as well as to the reliability testing of experimental measurements.	
SUBJECT DESCRIPTION	
<p><i>Mechanics:</i> States of matter, solid (crystalline and amorphous), liquid and gas. Bonding in solids. Mechanical properties of solids. Types of strain. Hooke's law. Tension diagram. Compressibility. Hardness. Thermal stress. Moment of inertia. Mechanical properties. Fluids in equilibrium. Units of pressure. Pascal's law and its applications. Hydrostatic pressure. Fluid dynamics. Flow rate, law of continuity. Ideal fluids and Bernoulli's law. Applications. Real fluids. Viscosity and kinematic or dynamic viscosity. Types of fluid flow (laminar and turbulent). Reynolds number. Applications. Small-scale fluid properties. Surface tension and material wettability. Law of diffusion.</p> <p><i>Heat :</i> Thermal properties of matter. Heat capacity and specific heat. Changes of state, latent heat. Phase diagram. Phase transition in alloys and solutions. Fusibility. Thermic expansion and thermal stress. Law of heat transfer. Introduction to Thermodynamics. Gas laws. Internal energy. First law. Thermal machines. Second law. Entropy.</p> <p><i>Optics and elements of modern Physics:</i> The nature of light. Light production. The meaning of color. General properties of laser. Properties of electromagnetic waves, the phenomenon of light diffraction and the properties of laser. Interaction of light with matter. Reflectivity, transparency and absorption. Kirchhoff's law. Spectra and spectroscopy.</p> <p><i>Acoustics:</i> Sound. Sound (acoustic) intensity. Static waves. Loudness. Ultrasound and its applications.</p>	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will be able to:	
<ul style="list-style-type: none"> • understand the physical properties of materials and the laws related to them. The physical properties we refer to are the mechanical, the electrical, the thermal and the optical ones. The study mainly focuses on solids and fluids. Emphasis is given to the relevant units. • become familiar with 1) measurement error so as to be able to estimate the reliability of the measuring procedure and 2) the drawing and utilization of diagrams. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Αλεξόπουλου Κ., Γενική Φυσική. Αθήνα 1992 2. Ανδριτσάκη Α. κ.α., Εργαστηριακές Ασκήσεις Φυσικής, Μακεδονικές Εκδόσεις, Αθήνα 1992 3. Βαμβακά Ι. κ.α, Εργαστηριακές Ασκήσεις Φυσικής Ι, Μακεδονικές Εκδόσεις, Αθήνα 1992 . 4. Horst Herr, Τεχνική Μηχανική & Αντοχή των Υλικών, Εκδόσεις Ίων, Αθήνα 1996 	

5. Saveliev I. V., Physics, A General Course, Mir Publishers, Moscow, 1979

SUBJECT TITLE	CHEMISTRY
SUBJECT CODE NUMBER	OΔO102
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	I'
OBJECTIVE	
Understand and consolidate the fundamental chemical and physicochemical concepts. Familiarize with modern chemistry terminology. Acquire knowledge in theoretical chemistry and thus have good knowledge of the subject matter of chemistry.	
SUBJECT DESCRIPTION	
<ol style="list-style-type: none"> 1. Atomic structure – The Periodic system 2. Chemical bond 3. Solution 4. Chemical/reaction kinetics and chemical equilibrium 5. Electrolytes – Acids and bases 6. Oxidation – Reduction and elements of electrochemistry 7. Main group elements 8. Metals and $\kappa\alpha\iota$ metallic character 9. Properties of metals used in dental technology 10. Classification and nomenclature of organic compounds 11. Isomerism and stereochemistry 12. Homologous series 13. Organic compounds of special interest to dental technology 14. Polymerization 15. Polymer structure and properties 	

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will have:

- fluency in using modern chemical terminology and thus fully understand the relative scientific and/or technological developments.
- fluency in using theoretical chemistry knowledge for an integrated approach to the specific field of technology.
- fluency in combining theoretical knowledge, understanding and interpreting lab results and solving practical problems.
- ease of better communication in the broader working environment.

REFERENCES

1. «Γενική και Ανόργανη Χημεία», Μ. Λάλια & Σ. Παπαστεφάνου, Εκδόσεις Ζήτη, Θεσσαλονίκη.
2. «Στοιχεία Γενικής Χημείας», Π. Ακριβός, Εκδόσεις Ζήτη, Θεσσαλονίκη.
3. Οργανική Χημεία για Ιατρικές και Βιολογικές Επιστήμες, G.A. Taylor, Ιατρικές εκδόσεις Λίτσας, Αθήνα (Μετάφραση από την Αγγλική)
4. Γενική Χημεία D.D. Ebbing, S.D. Gammond, Π. Τραυλός, Αθήνα (Μετάφραση από την Αγγλική)
5. «Chemistry», C. E. Mortimer, Wadsworth Inc., Belmont, California.
6. «General Chemistry», R. H. Petrucci & W. A. Harwood, Prentice Hall, New Jersey
7. «Chemistry», S. S. Zumdahl, D. C. Heath and Co., Lexington, Toronto.
8. Inorganic, Organic and Biological Chemistry, R.L. Caret Dubuque, Wm. C. Brown
9. Study guide for Organic Chemistry, R.T. Morisson Prentice Hall, Englewood Cliffs, NJ.

SUBJECT TITLE	ANATOMY
SUBJECT CODE NUMBER:	OΔO105
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3 Theory + 2 Lab
ECTS	7
SEMESTER	I'
OBJECTIVE	
Students get acquainted with: tissues, human organs and systems, functionally related organs, functional anatomy, head anatomy.	
SUBJECT DESCRIPTION	
Theory	
Through <u>Systematic Anatomy</u> , we give a rough description of the human body and through <u>Topographic Anatomy</u> a description of the head. More analytically:	
1. Introduction: analysis of the concepts of Histology, Embryology, Anatomy, (systematic and topographic), Tissue, Organ. Overview of skin stem cells and of tissue emaciation and formation.	
2. Tissues, Systems, Organs. Tissue types, epithelial, connective, muscle, nerve, Systems:	
-Skeletal system: Important functions of bones, cartilage, ligaments. Brief overview of	

all human bones. Analytical study of bones of the head. Overview of joints.

- Muscular system: muscle function, muscle types (protagonists, antagonists, synergists, intrinsic, extrinsic). Overview of human muscle groups. Analytical study of muscles of the head.

- Circulatory system: overview of blood system (heart, vessels) and of lymphatic system (lymph vessels, lymph nodes).

- Digestive system: overview of the digestive tube (pharynx, esophagus, stomach, small and large intestine, liver, pancreas and spleen. Analytical study of the oral cavity and the salivary glands.

- Respiratory system: overview of pharynx, larynx, trachea, bronchi, lungs. Analytical study of the nasal cavity.

- Excretory (urinary) system: overview and description of kidneys, ureters, urinary bladder and urethra.

- Reproductive system: overview of male and female sex organs.

- Nervous system: overview of the cerebrospinal and the autonomic nervous systems and of the peripheral nerves.

Sense organs: overview of the five organs. Analytical study of taste.

Ενδοκρινείς αδένες: Αδρή αναφορά.

3. Skeleton of the Head

Detailed description of cranial and facial bones.

4. Head Muscles.

Description of masseter muscles. Description of mimic muscles (facial muscles and calvaria). Description of suprahyoid muscles.

5. Oral cavity.

Detailed description of the oral cavity and its subdivisions (oral vestibule, particularly the hollow part of the mouth). Description of lips, cheeks and gingiva. Description of the tongue and the taste sensory. Description of the palate. Brief overview of the nasal cavity.

6. Salivary glands and tonsils.

Detailed description of parotids, submandibular and sublingual glands.

7. Temporomandibular Joint (TMJ).

Detailed description of the temporomandibular joint (glenoid fossa, mandibular condyle, joint cartilage, bursa).

Lab

During lab exercises, students practice on human anatomy models.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the general anatomy terminology.
- have an integrated comprehensive understanding of the structure of the human body
- have fully understood the specialization subjects in the following semesters.

REFERENCES

1. Αποστολάκης Γ., Ανατομική του Ανθρώπου
2. Κακλαμάνη Ν., Καμμά Α., Η Ανατομική του Ανθρώπου, Εκδόσεις Μ-EDITION, Αθήνα 1998
3. Πισσίδης Α., ANATOMIKH
4. DeBrul E.: Sicher's oral anatomy. 7th ed. The CV Mosby Co. St. Louis. Toronto, London 1980
5. Lippert, ANATOMY
6. SOBOTTA, COLOR ATLAS OF ANATOMY,

SUBJECT TITLE	BIOLOGY
SUBJECT CODE NUMBER	OΔO203
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	II'
OBJECTIVE	
Students will get acquainted with the fundamental biology concepts and will be enabled to follow the tremendous advances in Biology and Molecular biology.	
SUBJECT DESCRIPTION	
1. Organization and classification of life. Biotic and abiotic factors. Population, ecosystem, species. Evolution elements. Classification of organisms into eukaryotes, prokaryotes, archaea and viruses.	
2. The importance of water. From micromolecules to macromolecules. Carbohydrates, lipids, proteins, nucleic acids. Structure (aminoacids, peptide bond), levels of organization, denaturation.	
3. Enzymes. The action of enzymes as biocatalysts. Mode of action. Categorization of enzymes. Examples of enzymes. Factors affecting enzyme activity. Enzyme inhibitors, coenzymes.	
4. Cell. Differences between prokaryotic and eukaryotic cells. Cell boundaries- plasma membrane. Membrane structure, fluid mosaic model. Membrane proteins. Membranes and passive transport (the role of osmosis and the role of diffusion).	
5. Membranes and active transport. Ion pumps, endocytosis, exocytosis. Cell communication, close together or far apart communicating cells. Signal transduction and the importance of receptors.	
6. Inside the cell. Nucleus. Membrane network (endoplasmic reticulum, Golgi apparatus, lysosomes, peroxisomes, vacuoles). The role of vesicles in endomembrane system communication.	
7. Energy. Anabolism, catabolism. Energy input into an ecosystem (photosynthesis, chloroplasts). The Krebs cycle, oxidative phosphorylation. Mitochondria.	
8. Cytoskeleton. Structure and function. Description of the cell and the unique functions of organelles.	
9. DNA. Structure. The double-helix model. DNA functions as genetic material. Central dogma of biology. DNA replication. Transcription of DNA into RNA. RNA types and their role.	
10. Translation of RNA. Genes. Gene organization. Control of gene expression. Organization of eukaryotes genomes (from nucleosome to chromosome).	
11. Sister chromatids, homologous chromosomes. The life cycle of cells. Mitosis - meiosis. Heredity.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know all fundamentals of biological life cycle. • be able to follow all advances in this science related to their specialty. 	
REFERENCES	
1. Χαρβάλου Αικ., Πηγής Δ., Φιλίππου, Δ. Τρίγκας Γ., ΣΥΝΟΠΤΙΚΗ ΚΥΤΤΑΡΙΚΗ ΒΙΟΛΟΓΙΑ. Εισαγωγή στη Μοριακή Βιολογία. Εκδόσεις Πασχαλίδη. Αθήνα 2002.	
2. Alberts et al., Molecular Biology of the Cell, Garland Publishing, Inc. 2002.	

SUBJECT TITLE	PHYSIOLOGY
SUBJECT CODE NUMBER	ΟΔΟ204
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	III'
OBJECTIVE	
Students will get acquainted with the function and physiological significance of tissues and human body systems.	
SUBJECT DESCRIPTION	
Cell structure and functions. Systems – Organs	
1. Physiology of the Skeletal System,	
2. Physiology of the Muscular System	
3. Physiology of the Digestive System	
4. Physiology of the Respiratory System	
5. Physiology of the Urinary System	
6. Physiology of the Reproductive System	
7. Physiology of the Circulatory System	
8. Nervous System Physiology	
Lymph and the Lymphatic System. Sense organs, endocrine glands, metabolism, hormones.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know the fundamentals of human body function. 	
REFERENCES :	
1. Δημουλά Υ. Εργαστηριακός οδηγός Ασκήσεων Φυσιολογίας του Ανθρώπου, Αθήνα 2007	
2. Πλέσσας Σ., Κανέλλος Ε. Φυσιολογία του Ανθρώπου 1, εκδ. Φάρμακον-Τύπος, Αθήνα 1997	
3. Χανιώτης Φ., Χανιώτης Δ. Φυσιολογία του Ανθρώπου, εκδ. Λίτσας	
4. Boron W., Boulreap E. Φυσιολογία του Ανθρώπου, εκδ. Π.Χ. Πασχαλίδης Αθήνα 2006	
5. Guyton A. Φυσιολογία του Ανθρώπου, εκδ. Λίτσας, Αθήνα 2004	
6. Coffman T., Crowley S., Kidney in Hypertension 51:811-816,2008	
7. Despopoulos A., Silbernagl S., Physiology, 5 th ed. Thieme, NY USA 2003	
8. Kapitan K. Teaching pulmonary gas exchange physiology. Adv Physiol Educ 32:61-64,2008	
9. Priebe H-J, Skarvan K. Cardiovascular Physiology BMJ Books, London 2000	

SUBJECT TITLE	INFORMATICS
SUBJECT CODE NUMBER	ΟΔΟ205
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	GBS
ΕΒΔΟΜΑΔΙΑΙΕΣ ΩΡΕΣ ΔΙΔΑΣΚΑΛΙΑΣ	3T + 2L
ECTS	5
SEMESTER	II'

OBJECTIVE

Students will learn and understand data management and organization as well as the database concept.

SUBJECT DESCRIPTION**Theory**

The theoretical part of the subject consists of the following units:

Fundamentals of Informatics. Introduction, a brief historical overview, the Central Processing Unit (CPU), auxiliary memory, input/output devices, software, data, operating systems, software packages, communications and networks, basic security issues, information society. Communication and computer network. Internet. Computer system security.

Data files. Databases and Database Management Systems (DBMSs). Characteristics of DBMSs. Types of Databases. Data file processing. File access and organization. Information systems. Applications in the field of dental technology.

Lab

Using the computer and managing files (Windows). Basic word processing (Word). Spreadsheets (Excel) and applications in dental technology. Presentation system (Power Point). Internet services (Internet Explorer, Outlook Express)

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- be able to use the operating system Windows for word processing with the application of MS Word as required for carrying out assignments involving documents.
- understand the need for everyday information organization.
- understand the basic concepts underlying data management and organization.
- be familiar with computer data management and organization.
- be trained in using the MS Access program for the organization and management of data, as well as the MS Excel spreadsheet program and the MS Power Point presentation program.
- use Internet for information collection.

REFERENCES

1. Αντωνακόπουλο Κ., Καλαφατούδης Σ., Στασινός Χ. Αυτοματισμός γραφείου με το Microsoft Office 2000/XP. Εκδόσεις Νέων Τεχνολογιών, 2004
2. Κοίλας Χ., Καλαφατούδης Σ., Πάνδηλα Ε. Εισαγωγή στην Πληροφορική και Χρήση Υπολογιστή. Εκδόσεις Νέων Τεχνολογιών, 2003
3. Κοίλας Χ., Καλαφατούδης Σ. Χρήση Υπολογιστή. Εκδόσεις Νέων Τεχνολογιών, 2007
4. Τσουροπλής Α., Κλημόπουλος Σ., Εισαγωγή στην Πληροφορική. Εκδόσεις Νέων Τεχνολογιών, 2005
5. Beekman G., Quin M. Σύγχρονη Τεχνολογία της Πληροφορικής. Εκδόσεις Γκιούρδας 2007
6. Brookshear G. Η επιστήμη των Υπολογιστών. Εκδόσεις Κλειδάριθμος 2005

SUBJECT TITLE	BIOCHEMISTRY
SUBJECT CODE NUMBER	OΔO303
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	II'
<p>OBJECTIVE</p> <p>Understand the relationship between chemical structure and biological function. Fully understand the composition and biological role of major classes of biomolecules. Study body metabolism in relation existence and to the use of biocompounds (enzymatic processes in the digestive tract, etc.) Understand metabolic energy utilization and supply. Complete their knowledge of the overview of body function through the study of other essential for human metabolism substances such as vitamins, hormones, etc.</p>	
<p>SUBJECT DESCRIPTION</p> <p>Introduction to Biochemistry (the role of water, chemical cell substrate, microelements, electrolytes) 2. Proteins-Peptides, properties , structure 3. Aminoacids, peptide bond, ampholytic character 4. Protein metabolism 5. Enzymes: study of the enzymatic activity, classification 6. Enzyme kinetics, suspension types, enzymes in clinical diagnosis 7. Carbohydrates: molecular structure, isomerism, properties, types of sugar 8. Carbohydrate metabolism 9. Biological oxidations 10. Lipids: properties, classification 11. Blood lipids 12. Lipid metabolism 13. Nucleic acids 14. Hormones: chemical composition, properties, production, endocrine glands, mode of action 16. Vitamins: chemical composition, water-soluble, fat-soluble, properties</p>	
<p>EXPECTED LEARNING OUTCOMES</p> <p>Upon completion of the course, students will be able to:</p> <ul style="list-style-type: none"> • appreciate the importance of bio-molecules in connection to the normal bodily functions. • appreciate the interaction of bio-molecules in cellular activities, their relationship with metabolism and nutrition as well as the impact of nutrition on oral cavity and teeth. <p>The above mentioned will also contribute to a better understanding of both the General Background Subjects (GBS) and the Special Background Subjects (SBS) such as Biology, Microbiology, Physiology, etc.</p>	
<p>REFERENCES</p> <p>1. Α. Φύτου, Βιοχημεία, Εκδόσεις Λύχνος, 1997</p>	

2. Γ. Α. Καρίκας, Πρακτική Βιοχημεία, Εκδόσεις Λύχνος, 2008
3. Α. Φύτου-Γ.Α.Καρίκας, Μαθήματα Βιοχημείας, Εκδόσεις Λύχνος, 2008
4. Devlin T.M. Textbook of Biochemistry with clinical correlations, 3th edition, Wiley-Liss, USA, 1992
5. P. Karlson, D. Doenecke, J. Koolman, Βιοχημεία, 14^η έκδοση, Ιατρικές Εκδόσεις Λίτσας, 1998
6. L. Stryer, Βιοχημεία, Πανεπιστημιακές Εκδόσεις Κρήτης, 1997

SUBJECT TITLE	BIOMETRY-BIOSTATISTICS
SUBJECT CODE NUMBER	ΟΔΟ305
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	III'
OBJECTIVE	
Students will understand the basic principles of preparing a study, the methods of statistical analysis and interpretation of results.	
SUBJECT DESCRIPTION	
Study and application of statistical methods for the analysis and interpretation of biological and medical data. Principles of sampling, use of means and medians, frequencies, measures of variability. Relation and study of various forms of distribution and more specifically of those related to medicine.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will be able to:	
<ul style="list-style-type: none"> • study the quantitative and qualitative characteristics of a research. • relate measurements and data results. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Παπαευαγγέλου Γ., Κατοστάρα Θ., Βιοστατιστική και Μεθοδολογία Έρευνας, Εκδόσεις ΖΗΤΑ, Αθήνα 1996 2. Τριχόπουλου Δ., Τζώνου Δ., Κατσουγιάννη Κ., Βιοστατιστική, Εκδόσεις Μ. Παρισιάνου, Αθήνα 2000 3. Altman Gd., Practical Statistics For Medical Research, Εκδόσεις Chapman & Hall, Great Britain 1991 4. Armitage P., Berry G., Statisticals Methods In Medical Research, Εκδόσεις Blackwell Science Ltd, Oxford 1994 5. Colton Th., Statistics In Medicine, Εκδόσεις Little Brown and Company, Boston 1974 6. Fisher D., Van Belle G., Biostatistics, A Methodology For The Health Sciences, Εκδόσεις John Wiley & Sons, New York 1993 7. Pagano M., Gauvreau K., Αρχές Βιοστατιστικής, Εκδόσεις ΕΛΛΗΝ Περιστέρι 1992 	

4.2 SPECIAL BACKGROUND SUBJECTS (SBS)

SUBJECT TITLE	PRINCIPLES OF DENTAL TECHNOLOGY
SUBJECT CODE NUMBER	ΟΔΟ103
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	I'
OBJECTIVE	
Students will get acquainted with the object of their profession and the object of prosthodontics and dental technology. They will follow the developments of prosthodontics since ancient times and keep up with future perspectives. Moreover, they will be familiarized with the equipment of the labs as well as the basic materials used in prosthetic restorations.	
SUBJECT DESCRIPTION	
The subject includes the following units. Job description of dental technicians. Reference to prosthodontic and orthodontic restoration types such as complete dentures, partial dentures, inlays, crowns and orthodontic appliances. Fabrication process and cooperation with the dentist. Development of dental prosthetics from ancient times to Renaissance. The contribution of various ancient civilizations - Ancient Egypt, Phoenicians, Assyrians, Etruscans, China, India, Ancient Greece, Romans, Arabs, Middle Ages, Europe, America, resulting from writings and findings of archaeological excavations. Modern dental prosthetics. Reference to implants. The necessary equipment of a lab. The operation and use of machinery and appliances. Development of basic materials. Metals and alloys, polymers, ceramics. Applications, uses.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know the object of their profession • understand the importance of dental prosthetics • acquire knowledge related to the development of their profession • know the machinery, the equipment and the materials needed for prosthetic restorations. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Βουρνά Π. Ιστορία του οδοντοτεχνικού επαγγέλματος, Αθήνα 1996 2. Δημητριάδη Α. Ιστορία Ελληνικής Οδοντιατρικής, Αθήνα 1989 3. Μήτση Ι Φ. Αναδρομές και μνήμες από το οδοιπορικό της ελληνικής οδοντιατρικής., Omni press, Αθήνα 1993 4. Τσουκανέλη Α. Χρυσό ιωβηλαίο, Αθήνα 1984 5. Τσουκανέλη Α. Η στοματολογία ανά τον κόσμο διά μέσου των αιώνων., Αθήνα 1994 6. Hoffmann W. History of dentistry. Quintessence Pub. Co 1981. 	

SUBJECT TITLE	DENTAL MORPHOLOGY
SUBJECT CODE NUMBER	OΔO104
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	MEY
WEEKLY TEACHING HOURS	4 Theory + 5 Lab
ECTS	8
SEMESTER	I'
OBJECTIVE	
Students will know the shape, the size, the normal morphological characteristics and the differences among natural teeth.	
SUBJECT DESCRIPTION	
<i>Theory:</i>	
1. The course deals with the morphology of permanent teeth, their anatomical differentiations and their eruption time. Regarding deciduous teeth, reference is made to their general morphological characteristics and special emphasis is given to their differences from permanent teeth.	
2. Introduction to the histology of dental and periodontal tissues. The theoretical part, for educational and practical reasons, is divided into a general and a special part with corresponding units:	
General part	
1. Oral cavity. Descriptive anatomy of oral cavity, field of indirect yet special involvement of the dental technician.	
2. Tooth formation and eruption.	
3. Tooth histology. It probably constitutes the most important unit of the course "Dental Morphology" and this is because descriptive morphology of individual teeth implies 'barren', at present, memorization of the specific features of each tooth. On the contrary, in-depth knowledge of the various tooth tissues and especially of their optical properties constitutes the unique way for understanding artificial stratification of aesthetic materials in imitating nature with flawless precision.	
4. Nomenclature – Tooth numbering system. Common language between the dentist and the dental technician is, according to the international dental nomenclature and numbering system a prerequisite for good cooperation.	
5. Terminology of individual characteristics. Common features of teeth. Despite the variation in tooth morphology depending on the type or the differences among individuals or races, there are certain permanent features. Knowing the terminology of the individual structural features constitutes a basic educational need.	
6. Eruption time. Eruption time for each tooth, deciduous or permanent, varies. Eruption time of permanent teeth is of special interest during the period of mixed dentition. At this phase, the dental technician is usually involved for the fabrication of orthodontic appliances.	
Special Part	
1. Morphology of deciduous teeth. Overview presentation of deciduous teeth, mostly in relation to their differences from permanent teeth. The aim is to enable students to identify teeth (deciduous or permanent) in a model.	
2. Permanent incisors, permanent canines (cuspids), permanent premolars, permanent molars. Each tooth is described separately. Emphasis is given to its morphology and reference is made to its mission in the oral cavity so that there is a continuity with the following subjects such as "Physiology of the Stomatognathic System" and "Occlusion".	
3. Morphological differences between the teeth of the maxilla and the mandible as well as between the right and left quadrants. Distinction between mandibular and maxillary teeth or between the right and the left quadrant ones, in addition to its practical	

significance, is of special interest from an educational perspective, as it makes memorization of the individual features easier and more effective for the student. Dental Morphology constitutes a basic subject in Dental Technology and a typical and essential prerequisite for the student's progress in the next semesters.

Lab:

Along with theory, students practice in the lab of dental morphology by making all teeth, of mixed dentition, in wax.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the basic elements of tooth histology and periodontal tissues.
- recognize the anatomic, physiological and biomechanical relationship of dental tissues.
- recognize the form of teeth and their relation to function.
- make artificial teeth identical to natural ones.
- distinguish deciduous from permanent teeth, teeth of the same kind belonging to different quadrants or to the upper or lower jaw.

REFERENCES :

1. Δουβίτσα Γ: Οδοντική μορφολογία και εισαγωγή στη σύγκλειση. Εκδόσεις Ελληνικά Γράμματα. Αθήνα 2001
2. Παπαντωνίου Ε: Το στοματογναθικόν σύστημα. Αθήνα 1973
3. DeBrul E: Sicher's oral anatomy. 7th ed. The CV Mosby Co. St. Louis. Toronto, London 1980
4. Schulz H :Modellation und Anatomie der Zahnkrone. Neuer Merkur Verlag. Munchen 1997
5. Wheeler R: Dental Anatomy, Physiology and Occlusion. 5th ed. WB Saunders Co. Philadelphia 1974

SUBJECT TITLE	DENTAL BIOMATERIALS I
SUBJECT CODE NUMBER	ΟΔΟ202
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	II'
OBJECTIVE	
Students will be familiarized with the concept of biomaterials used in dental prostheses, mainly the job of a dental technician. Furthermore, they will acquire in-depth knowledge in dental biomaterials and their physicommechanical properties.	
SUBJECT DESCRIPTION	
The course is made up of a cycle of integrated thematic units. For educational reasons, it is divided into two parts: GENERAL PART	
1. Historical overview. Knowing the stages of the development of dental biomaterials is a prerequisite to understanding modern data in dental biomaterials.	
2. Physical and chemical properties of materials. Atomic Physics, surface properties of materials.	
3. Optical, thermal and electrical properties of materials.	

4. Mechanical properties and behavior of materials.

SPECIAL PART

Metals-alloys, structure, processing, casting.

The first thematic units of the General Part, more or less, prepare the student for the various classes of materials used in everyday lab practice and which are taught in the Special Part as well as in the 2nd class unit of the subject DENTAL BIOMATERIALS II.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the properties of the materials used in everyday lab practice
- be able to choose the proper material for the right method
- be able to apply correctly the various fabrication techniques in accordance with the material specifications

REFERENCES

1. Θεοχάρης Π. Πειραματική αντοχή των υλικών. Έκδοσης ΕΜΠ. Αθήνα 1975
2. Καφούσιας Ν, Μπαλτζάκη Γ, Σταθόπουλος Απ. Οδοντιατρικά Βιοϋλικά. Εκδόσεις Ακίδα. Αθήνα 1994
3. Σταθόπουλος Απ.Α.: Αριστοτέλους Αδάμ Οδοντιατρικά υλικά. Παρισιάνος. Αθήνα 1988
4. Graig RG. Restorative dental materials. 8th ed. The CV Mosby Co. St Louis 1989
5. Phillips RW. Skinner's Science of dental materials. W.B.Saunders Co. 8th ed. 1982

SUBJECT TITLE	DENTAL BIOMATERIALS II
SUBJECT CODE NUMBER	ΟΔΟ302
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	4
ECTS	5
SEMESTER	III'
OBJECTIVE	
Students will be familiarized with the concept of biomaterials used in dental prostheses, mainly the job of a dental technician. Furthermore, they will be familiarized with modern materials and prosthetic fabrication methods so that they are able to choose from a multitude of material options available on the market, on the one hand and how to use them properly, on the other.	
SUBJECT DESCRIPTION	
The course is made up of a cycle of integrated thematic units:	
<ol style="list-style-type: none"> 1. Plasters and investments. Physicomechanical properties, types, uses, choice. 2. Waxes. Physicomechanical properties, types, uses, choice. 3. Polymerization and polymers-Synthetic resins. 4. Aesthetic polymer coatings. 5. Ceramic materials-Dental porcelain. 6. Biological properties-biocompatibility of materials. 	
With this subject, which is the continuation of the subject "DENTAL BIOMATERIALS I" taught in a previous semester, the course cycle concerning dental biomaterials closes.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	

- know the properties of the materials used in everyday lab practice
- be able to choose the proper material for the right method
- be able to apply properly the various fabrication techniques according to the material specifications.

REFERENCES

1. Θεοχάρης Π. Πειραματική αντοχή των υλικών. Έκδοσης ΕΜΠ. Αθήνα 1975
2. Καρούσιας Ν, Μπαλτζάκη Γ, Σταθόπουλος Απ. Οδοντιατρικά Βιοϋλικά. Εκδόσεις Ακίδα. Αθήνα 1994
3. Σταθόπουλος Απ.Α.: Αριστοτέλους Αδάμ Οδοντιατρικά υλικά. Παρισιάνος. Αθήνα 1988
4. Graig RG. Restorative dental materials. 8th ed. The CV Mosby Co. St Louis 1989
5. Phillips RW. Skinner's Science of dental materials. W.B.Saunders Co. 8th ed. 1982

SUBJECT TITLE	PHYSIOLOGY OF STOMATOGNATHIC SYSTEM – OCCLUSION
SUBJECT CODE NUMBER	ΟΔΟ304
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	4
ECTS	5
SEMESTER	III'
<p>OBJECTIVE</p> <p>Students will learn the anatomical structures and the physiological mechanisms of the Stomatognathic System and the way they are interconnected so that the primary and secondary functions of the system take place. In addition, the student will understand the relationship between “Dental Morphology” and “Prosthodontics”, in general, and thus be able to operate in the Stomatognathic System safely.</p> <p>The course aims at:</p> <ol style="list-style-type: none"> 1. describing functional anatomy and biomechanics of the masticatory system. 2. teaching functional neuroanatomy and physiology of the masticatory system and analyzing the mechanisms of mastication, deglutition and speech. 3. teaching the essentials of stomatognathic pathology; associating pathological conditions of stomatognathic system with poorly made prostheses. 4. associating the knowledge gained from “Dental Morphology” with prosthetic fabrications. 5. familiarizing students with the ‘Articulators’ so that they are enabled to use them as their studies advance. 	
<p>SUBJECT DESCRIPTION</p> <p>Overview the Functional Anatomy of Masticatory System: Description of the anatomic features that are basic to an understanding of masticatory function. The following anatomic components are discussed in this chapter: the skeletal components, the muscles of neck and face region, the Temporomandibular Joints and ligaments and the dentition and supportive tissues. In addition, the biomechanics of temporomandibular joint is</p>	

presented.

Physiology of the Nervous and the Muscular system: Understanding mechanisms of cooperation among the various stomatognathic structures for the performance of its complex functions, requires a thorough knowledge of both the nervous and muscular systems and of the neuromuscular coordination. This chapter is divided in two sections. The first section discusses in detail the basic anatomy and function of neuromuscular system. The second reviews the basic physiologic activities of mastication, swallowing, and speech.

Basic positions of the mandible: The basic positions of the mandible, such as Centric Relation, Rest Position and Centric Occlusion are described.

Kinesiology of the mandible: The border and functional movements of the mandible discussed first and then the three-dimensional movements of the joint will be divided and analyzed into movements within a single plane.

Pathology of the Stomatognathic System: Once the student has been acquainted with the different parts of the Stomatognathic System and their functions, he/she is taught the essentials of the pathology of the system, mostly from the perspective of the contribution of these parts to pathology.

Alignment and Occlusion of the Dentition: This chapter is been divided into three sections. The first will discuss the factors and forces that determine the tooth position in dental arches. The second will describe the normal relationship of the teeth as they are aligned within the arches. The third will describe the normal relationship of the arches to each other as they brought into occlusion.

Occlusion analysis: Determinants of Occlusal morphology and function - Optimal occlusion – Occlusal schemes and relationships in dentate and edentulous jaws. Selection of occlusal shape and scheme for removable and fixed prosthetics.

Articulators: The mechanical analogues of jaw movements are analyzed in detail.

Studying the Hanau H2 articulator and the condylar and auricular face bows types. Waxing up Techniques of occlusal surfaces. Description of the Thomas and Payne Linden techniques for the creation of occlusal surfaces in fixed prostheses.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the function of the Stomatognathic system.
- know the rules of occlusion rehabilitation in prosthetic fabrication and thus work safely with the stomatognathic system

REFERENCES

1. Γαρέφης Π: Ακίνητη προσθετική. Κλινική φυσιολογία του στοματογναθικού συστήματος. Πρώτος τόμος. Φωτοτυπωτική. Θεσσαλονίκη 1986
2. Δρούκας Β. : Λειτουργία και δυσλειτουργία του στοματογναθικού συστήματος. Εκδόσεις Παρισιάνου 1996
3. GE, Magnusson T. (Μετάφραση: Δρούκας Β, Κοιλιάρη Σ): Κλινική Φυσιολογία του Στοματογναθικού Συστήματος. 2η έκδοση. Παρισιάνος. Αθήνα. 1983
4. DeBrul E.: Sicher's oral anatomy. 7th ed. The CV Mosby Co. St. Louis. Toronto, London 1980
5. Dawson P.: Evaluation, Diagnosis and Treatment of occlusal problems. Mosby. St. Louis 1989
6. Okeson J: Management of Temporomandibular disorders and occlusion. 4th Ed. Mosby. St. Louis 1998
7. Thomson H. Occlusion. Wright.London 1990
8. Wheeler R: Dental anatomy, physiology and occlusion. WB Saunders Co.

Philadelphia, London, Toronto, 1974

SUBJECT TITLE	AESTHETICS & PROSTHODONTICS
SUBJECT CODE NUMBER	OΔO402
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	IV'
OBJECTIVE	
Students will understand the importance of aesthetics in prostheses in relation to colour and dental characteristics.	
SUBJECT DESCRIPTION	
For educational reasons, the course is divided into units.	
1. Overview of aesthetics. Morphology, dental arch, smile.	
2. Light. Theories on the nature of light. Basic properties of light.	
3. Light and color. Radiation properties of the visible spectrum. Types of visible light spectra. Simple and compound colours. Colour identification systems.	
4. Light and color in dentistry – dental technology. Lighting conditions. Optical behavior of natural teeth and restoration materials.	
5. General overview of visual perception and its applications to prosthetic fabrications. This knowledge is essential for the fabrication of aesthetically proper prostheses.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know the fundamentals of aesthetics. • understand the theories of light nature and the main properties of light and colors. • know how to apply all the above knowledge to dental technology. • understand visual perception and its application to dental fabrications. 	
REFERENCES	
1. Αλεξόπουλος ΚΔ.: Γενική Φυσική. Τόμος 5ος, Οπτική, Αθήνα 1996	
2. Δουβίτσας Γ Π: Κλινική αισθητική Οδοντιατρική. Εκδόσεις Ζήτα , Αθήνα 2004.	
3. Χατσηκυριάκου Α.: Η αισθητική των Προσθετικών αποκαταστάσεων, Εκδόσεις Σιώκης, Αθήνα 2007	
4. Goldstein ER: Aesthetics in dentistry. 2nd Edition. B.C. Decket INC. Hamilton London, 1998	
5. Miler L: Organizing colour in dentistry. The Journal of the American Dental Associations. 1987: 26-40	

SUBJECT TITLE	ORAL MICROBIOLOGY
SUBJECT CODE NUMBER	OΔO404
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	3
ECTS	5

SEMESTER	IV'
<p>OBJECTIVE Students will understand the organism 'microorganism', will acquire theoretical and laboratory skills in the structure and the basic functions of bacteria, fungi, parasites and viruses and the basic principles of their relationship with the human organism. They will also prepare for special topics in microbiology.</p>	
<p>SUBJECT DESCRIPTION Oral microbiology focuses on microorganisms of the oral cavity and their interaction, as well as the interaction between them and the host (man). Bacteria and some viruses are the normal inhabitants of the mouth. Colonization of oral hard and soft tissues by biofilms is of great importance to oral microbiology. Bacteria -aerobic and anaerobic-, that colonize the oral cavity, are of great importance to periodontal infections and dental caries.</p> <p>The course is composed of 13 units:</p> <ol style="list-style-type: none"> 1. Microorganisms: bacteria –viruses-parasites. 2. Biology of microorganisms 3. Bacteria of the oral cavity- colonization during the neonatal period and early childhood <ul style="list-style-type: none"> • <i>Treponema denticola</i> • <i>Porphyromonas gingivalis</i> • <i>Actinobacillus actinomycetemcomitans</i> 4. Staining and cultivation: detecting microorganisms in the oral cavity. 5. Cell communication –biofilms 6. Dental plaque and periodontitis 7. Vaccination against oral bacteria 8. Treatment of caries and periodontitis 9. Molecular biology of dental bacteria 10. Parasitoses: rare oral infections 11. Viruses 12. Antibiotics for oral and dental infections 13. New techniques in dental antimicrobial agents and chemotherapy – dental hygiene studies 	
<p>EXPECTED LEARNING OUTCOMES Upon completion of the course, students will:</p> <ul style="list-style-type: none"> • be very well acquainted with the basic concepts of oral microbiology. • be able to identify the symptoms of dental microbial diseases. • know the implications of biofilms and the consequent treatment. • be aware of oral hygiene. 	
<p>REFERENCES</p> <ol style="list-style-type: none"> 1. Ανευλαβής Ε. Κλινική λοιμωξιολογία: διάγνωση και θεραπεία μικροβιακών λοιμώξεων αντιμικροβιακά φάρμακα. Ιατρικές εκδόσεις Λίτσας. Αθήνα 1990 2. Καλκάνη – Μπουσιάκου Ε. Γενική μικροβιολογία. Έλλην. Αθήνα 1996 3. Linardakis N. Microbiology and immunology. McGraw Hill. New York 1998 4. McKane L, Kandel J. Microbiology : essentials and applications: McGraw-Hill. New York 1996 5. Pepper IL, Gerba CP, Brendecke JW. Environmental microbiology: a laboratory manual. Academic Press. San Diego 1995 	

SUBJECT TITLE	ORAL & LAB HYGIENE
SUBJECT CODE NUMBER	OΔO504
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	V'
OBJECTIVE	
<p>The subject 'Oral and Lab Hygiene' belongs to Sector A' "Fixed Prosthodontics". It is divided into two separate parts. Part 1: Oral Hygiene and Part 2: Lab Hygiene.</p> <p>In Part 1 students will be familiarized with the ways and means of oral hygiene cavity prevention and therapy. Regarding lab hygiene, the students learn about the risks they are exposed to due to the patient, dentist, dental assistant and dental technician chain. Moreover, they learn about the ways and means, at their disposal, for preventing spread of contagious and infectious diseases.</p>	
SUBJECT DESCRIPTION	
<p>For educational reasons, the course is divided into units.</p> <p>Part 1: Introduction to elements of Anatomy related to the oral cavity. Caries, Periodontitis, the most frequent diseases due to bad oral hygiene. Dental microbial plaque: formation, its relationship to healthy nutrition. Fluorine: intake, its action against caries. Modern means of oral cavity care, toothbrush, dental floss, interdental brushes, etc. Daily oral hygiene and its importance for the successfulness and longevity of prosthetic fabrications. Oral hygiene problems in prosthetic restorations. Morphology of prosthetic restorations and oral hygiene. In what way does the dental technician contribute to oral hygiene maintenance?</p> <p>Part 2: Control of infectious diseases transmission from patient to dentist, from dentist to dental technician lab and vice versa. Risks due to cross-infection between patients, dentists, assistants and dental technicians. Ways and means to prevent transmission of infectious diseases. Vaccination, personal hygiene and cleanliness, gloves, goggles, masks, aprons. Laboratory hygiene. Reception area, workbenches (delivery-shipment). Aspiration systems. Sterilization (tool cleaning, packaging) – Disinfection of impressions, prosthetic fabrications. Disinfectants, specifications, time, effect of physicochemical properties of materials and prosthetic fabrications.</p>	
EXPECTED LEARNING OUTCOMES	
<p>Upon completion of the course, students will:</p> <ul style="list-style-type: none"> • know the importance of oral hygiene. • know the relationship between dental microbial plaque and dental and gingival diseases as well as the means for oral hygiene maintenance. • know the importance of prosthetic fabrications, according to specifications, that help the patient maintain his/her oral hygiene. • know the means of transmission of infectious diseases in the patient- dentist- assistant- dental technician cycle. • be able to organize laboratory space properly and how to effectively prevent cross-infection 	
REFERENCES	
<p>1. Αποστολόπουλου Α: Μαθήματα Προληπτικής Οδοντιατρικής. Εκ. Λίτσας Αθήνα 1984</p>	

2. Λάσκαρης Γ, Τζούτζας Ι. Κίνδυνοι και μέτρα πρόληψης στο οδοντιατρείο. Εκδόσεις Βήτα, ΚΕΕΛ 1994
3. Τριχόπουλου Α. Τριχόπουλου Δ., Σωστή Διατροφή και Πρόληψη Οδοντικής Τερηδόνας. Προληπτική Ιατρική. Εκ. Παρισιάνος Αθήνα 1986
4. Χατζόπουλου Π.: Αγωγή Στοματικής Υγείας, Εκδ. Χατζόπουλος Παναγιώτης Αθήνα 1988
5. Murray J.: Prevention of oral disease. Oxford University Press, New York 1995 3rd ed
6. Norman H., Arden Ch.: Primary preventive dentistry. Appleton & Lange, Norwalk c1995 4th ed.

SUBJECT TITLE	FIRST AID
SUBJECT CODE NUMBER	ΟΔΟ504
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SBS
WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	V'
OBJECTIVE	
Students will be familiarized with the importance of providing first aid to ill or injured persons, with whatever available means in acute and lifethreatening conditions.	
SUBJECT DESCRIPTION	
<p>1. Injuries. Injuries from mechanical, natural phenomena and chemical causes. The unit analyses and develops first aid treatment cases of hemorrhage, abrasion, contusion, trauma, bone fracture, dislocation, sprain, injuries in car accidents, bites, foreign objects in the human body. Injuries caused by natural phenomena such as high temperatures (burns, heatstroke) low temperatures (chilblain, frostbites and hypothermia) and exposure to the sun (sunstroke), electric shock and radiation.</p> <p>2. Pathological cases. Pathophysiology and first aid in specific pathological cases such as fever, diarrhea, fainting, shock, coma, stroke, epilepsy, spasms, heart attack and angina pectoris, pathological hemorrhages are analyzed.</p> <p>3. Artificial respiration and cardiopulmonary resuscitation (CPR). In many cases, in which respiration and circulation stop, it is required that respiration and cardiac function be maintained artificially and with massage. The combination of those two procedures constitutes cardiopulmonary resuscitation (CPR).</p> <p>4. Bandages - Bandaging. A bandage is a piece of material used either to support a medical device such as a dressing or splint, or on its own to provide support to the body. Bandaging refers to the special applications of bandages. Students learn the use and application of bandages as well as how to make bandages using simple materials.</p> <p>5. Splints. Splints are medical devices for the immobilization of limbs or of the spine. Students learn about the different forms of splints, when to use them and how to make improvised splints.</p> <p>6. Patient transport. Patient transport makes a valuable contribution to the patient rescue and undoubtedly includes first aid since it is the provision of care from the first moment we meet the patient in need until definitive medical treatment can be accessed. Students learn how to transport a patient using a stretcher (standard or improvised), his/her back, hands or a private car.</p> <p>7. Acute poisoning. Knowing about poisons, about clinical evaluation of poisoned patients and providing first aid in poisoning cases is of great value, as acute poisoning may be fatal.</p> <p>8. About injections. Theoretical training and practice in parenteral administration (intradermal, subcutaneous, intramuscular, intravenous). Reference is also made to</p>	

sterilization of syringes and needles.

9. Medicine cabinet. What should a modern medicine cabinet contain in order to meet first aid requirements?

10. Emergency tracheotomy. A procedure that can be life saving and should be undertaken only when a person with a obstruction of the upper airway is not able to breathe at all. Students learn its indications and its technique.

11. Oxygen administration. Knowledge of oxygen application and administration devices is essential for oxygen use.

Emergency management in the dental laboratory.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- recognize the situations in which first aid is needed.
- recognize the clinical picture and symptoms.
- provide first aid when needed.
- equip their laboratory with the necessary emergency medical supplies in order to provide first aid when needed.

REFERENCES

1. Γερμενή Τ. : Μαθήματα Πρώτων Βοηθειών δια επαγγέλματα Υγείας 1η έκδοση. Εκδόσεις Βήτα 1994
2. Τσόχα Κ., Πετρίδη Α.: Πρώτες Βοήθειες. Βασικές γνώσεις 1η έκδοση. Εκδόσεις Λύχνος. Αθήνα 1998
3. "Πρώτες Βοήθειες" Βρετανικού Ερυθρού Σταυρού 7η έκδοση . Ιατρικές εκδόσεις Λίτσας 2000
4. American Red Cross. Textbook of First Aid Fast 2η έκδοση. Εκδόσεις American National Red Cross 2003
5. Emergency Care and transportation of the sick and injured, American Academy of Orthopaedic Surgery 2002

SUBJECT TITLE	METHODOLOGY-RESEARCH
SUBJECT CODE NUMBER	ΟΔΟ604
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	GBS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	VI
OBJECTIVE	
Students will learn about research methods.	
SUBJECT DESCRIPTION	
For educational reasons, the course is divided into two parts, the General one and the Special one. The general part refers to the steps in the research process regardless of the field of study. Preparing a research paper starts with choosing a topic. The steps that follow are finding bibliography, organizing research according to the research protocol, pilot studying, collecting and analyzing data and finally presenting it and publishing it in a scientific journal.	
The special part refers to research methodology in Dental Technology. More specifically, issues such as methodology for studying dental materials, prostheses, specimen	

fabrication, testing, etc.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the different steps of research preparation.
- have knowledge on finding bibliography or writing a research article.
- know the criteria that help in assessing research papers.
- have come in contact with research done in both the field of prosthodontics and the field of dental materials..

REFERENCES

1. Θεοφανίδης Σ. Μεθοδολογία της επιστημονικής σκέψης και έρευνας. 1η Έκδοση. Αθήνα: Εκδόσεις Μπένου Ε, 1985.
2. Τριχόπουλου Δ., Τζώνου Δ., Κατσουγιάννη Κ., Βιοστατιστική, Εκδόσεις Μ. Παρισιάνου, Αθήνα 2000
3. Blater L, Hughes C, Tight M. How to research. 1st Edition. Philadelphia: Open University Press, 1996
4. Dally J, Rilley W. Experimental stress analysis. 3rd Edition. New York:McGraw Hill International Editions, 1991
5. Graziano AM, Raulin ML: Research methods. A process to inquiry. 3rd Edition. New York: Longman, 1997
6. Maxwell JA. Qualitative research design. An interactive approach. 1st Edition. London: SAGE Publications, 1996

4.3 SPECIALIZATION SUBJECTS (SS)

SUBJECT TITLE	REMOVABLE PROSTHODONTICS I
SUBJECT CODE NUMBER	OΔO201
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 9 Lab
ECTS	10
SEMESTER	II'
OBJECTIVE	
Students will acquire all theoretical knowledge and skills regarding the laboratory part of fabricating complete dentures, choosing the right materials and using them properly.	
SUBJECT DESCRIPTION	
The course is divided into theory and laboratory classes. Theory classes keep pace with lab work so that students can apply what they learn in theory.	
Theory	
1. Developmental stages of complete dentures: they constitute a prerequisite for understanding contemporary views on their fabrication.	
2. Essentials of Anatomy and Physiology of the Stomatognathic System related to the function of complete dentures.	

3. Factors related to the function of complete dentures.
4. Materials for the fabrication of complete denture bases: scientific knowledge of the physicomaterial properties of each material used in a denture fabrication helps in choosing the proper material for the appropriate method.
5. Antisepsis-Disinfection: taking the necessary preventive measures for the transmission of infectious diseases from the laboratory to the dentist, the patient, the dental assistant and vice versa is a contemporary requirement.
6. Complete denture: students learn the complete denture fabrication steps.
7. Complete dentures repairs: each product is considered successful, if it can be repaired or improved.
8. Immediate dentures: students learn about modern restoration techniques in cases of total edentulism, as required by an era with high aesthetic standards.
9. Case studies

Lab

1. Laboratory techniques and the fabrication steps of a complete denture.
2. Repairs of complete dentures.
3. Immediate denture fabrication.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know, theoretically and in practice, the fabrication and repair steps of a complete denture.
- know, theoretically and in practice, the fabrication steps of an immediate complete denture.
- know how to choose and use modern materials and fabrication techniques.
- know their duties and how to cooperate harmoniously with the dentist.

REFERENCES

1. Yannikakis S. Complete dentures. Laboratory techniques. Bonicel. Athens 2003.
2. Βλησίδης Δ: Οδοντοπροσθετική Ι (ολικές οδοντοστοιχίες). Εκδόσεις Λίτσας, Αθήνα 1982
3. Δημητρίου Π, Ζήση Α, Καρκαζή Η, Πολυζώη Γ, Σταυράκη Γ: Κινητή Προσθετική. Ολικές Οδοντοστοιχίες. 4η έκδοση. Εκδόσεις Μπονισέλ. Αθήνα 2001
4. Οικονόμου ΠΝ: Αμεσες ολικές οδοντοστοιχίες. Ζήτα. Αθήνα 1988
5. Geering AH, Kundert M, Kelsey CC: Complete denture and overdenture prosthetics. Thieme Medical Publ Inc. NewYork 1993
6. Hayakawa I. Principles and practices of complete dentures: creating the mental image of a denture. Quintessence Pub., Tokyo 2001
7. Muraoka H. Complete denture fabrication. Quintessence Publ. Co. Osaka Japan 1989

SUBJECT TITLE	REMOVABLE PROSTHODONTICS II
SUBJECT CODE NUMBER	ΟΔΟ301
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 9 Lab

ECTS	10
SEMESTER	III'
OBJECTIVE	
Students will acquire the theoretical knowledge and the skills related to the laboratory part of partial denture fabrication, proper material selection and appropriate use of them.	
SUBJECT DESCRIPTION	
The course includes a series of theoretical and laboratory classes, so that students make application of what they learn in theory.	
Theory	
Elements of anatomy and physiology of the stomatognathic system related to application of partial dentures.	
Engineering principles of partial denture design.	
Principles of partial denture design. Use of a surveyor. Greatest circumference. Path of insertion.	
Case studies.	
Kennedy's classification.	
Support, retention, stability. Rotation axes. Major, minor connectors, bars.	
Types of clasps, rests.	
Alloys. Properties, selection. Refractory Investments, properties, selection.	
Casting procedure. Metal framework processing.	
Tooth selection. Set up. Resins.	
Repair methods of both the metal part and the acrylic part of a partial denture (saddles – artificial teeth).	
Case studies	
Lab	
Fabrication of a custom tray.	
Fabrication of a master cast.	
Study and design of a partial denture.	
Elimination of undercuts, copy of the master cast in investment form. Fabrication of a wax pattern, casting, processing, finishing and polishing of the metal framework.	
Wax rims, mounting on the articulator, artificial tooth set up, flasking, polymerization, finishing and polishing of the plastic parts.	
Repair methods and techniques of different partial denture parts.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know the principles of partial denture design and fabrication using a cast metal framework. • know how to use the surveyor for a proper study and design of various partial dentures. • know how to use the various appliances required for the completion of a partial denture with a cast framework. • Know, in theory and in practice, the fabrication steps of a partial denture. • know how to select and use modern materials and fabrication techniques. 	
REFERENCES	

1. Αζαριά Χ., Μερικές Οδοντοστοιχίες, Θεσσαλονίκη 1994
2. Βλησίδη Δ. Οδοντοπροσθετική Ι (Μερικές Οδοντοστοιχίες). Εκδόσεις Λίτσας 1982
3. Δημητρίου Π και συν. Κινητή Προσθετική- Μερικές Οδοντοστοιχίες, Εκδόσεις Μπονισέλ, Αθήνα 1996
4. Renner P R., Boucher L. Partial Dentures. Quintessence Pub.Co. New York, 1987
5. Rudd K D, Morrow RM, Eissmann HF. Dental Laboratory Procedures. Removable Partial Dentures. Mosby Co, St Louis 1981

SUBJECT TITLE	FIXED PROSTHODONTICS I
SUBJECT CODE NUMBER	ΟΔΟ401
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + Lab
ECTS	10
SEMESTER	IV'
OBJECTIVE	
Students will acquire the necessary scientific and applied knowledge, which will enable them to design and fabricate fixed dental prostheses according to modern trends and materials.	

SUBJECT DESCRIPTION**Theory**

Basic principles and methods of fabricating fixed dental prostheses. Types and conditions.

The cast. Types of casts. Casts with removable dies. Fabrication techniques.

Fabrication process of metal castings in fixed prosthetics.

Fabrication techniques and steps of cast works such as complete crowns, partial crowns, inlays and onlays, porcelain fused to metal crowns, telescopic crowns, and dowel crowns.

Jacket crowns. Material selection and handling.

Case studies.

Lab

Fabrication of casts with removable dies, die shaping and mounting on the articulator.

Wax pattern formation for inlays, partial crowns, full coverage veneer crowns.

Spruing, investing, dewaxing and preheating and casting.

Framework processing, finishing, polishing and fitting.

Fabrication of the veneer, full cast crown, acrylic resin crown.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the goals, aims and necessity of fixed dental prostheses application.
- have acquired the scientific knowledge on the basic principles of prosthodontics.
- be familiar with current dental technology and biomaterials.
- have acquired the necessary qualifications for a regulated profession and competitiveness.

REFERENCES

1. Αντωνόπουλος Α., Σύγχρονη Ακίνητη Προσθετική, Εκδόσεις Συμμετρία, Αθήνα 1993
2. Γονίδης Δ., Οδηγός Ασκήσεων Εργαστηρίου Ακίνητης Προσθετικής Εκδόσεις Μπονισέλ
3. Δημητροπούλου Ε., Η εργαστηριακή διαδικασία στην Ακίνητη Προσθετική. Έκδοση ίδιας, Αθήνα 2004
4. Λομβαρδός Γ., Προσθετική, Εκδόσεις Μέλισσα 1987
5. Jonston F., Phillips W., Dykema W., Modern Practice in Crown and Bridge Prosthodontics Εκδόσεις W.B.Saunders Co, Philadelphia 1971
6. Miller L., Esthetic Guidelines for Restorative Dentistry, Εκδόσεις Quintessence 1980
7. Shillinbourg T., Hobo S., Whitsett D., Fundamentals of Fixed Prosthodontics, Εκδόσεις Quintessence 1981
8. Tylman S., Malone W., Θεωρία και Πράξη της Ακίνητης Προσθετικής (ελληνική μετάφραση) Εκδόσεις Μπονισέλ 1978

SUBJECT TITLE	ORTHODONTICS I
SUBJECT CODE NUMBER	OΔO403
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 3 Lab
ECTS	7
SEMESTER	IV'
OBJECTIVE	
Students will acquire the necessary scientific and applied knowledge, which will enable them to fabricate simple orthodontic appliances.	
SUBJECT DESCRIPTION	
The course is divided into theory and lab work. Lab work keeps pace with theory lectures so that students can put into practice what they learn in theory.	
Theory	
<i>General Part</i>	
<ol style="list-style-type: none"> 1. Historical Overview. The science of orthodontics through the ages. Reference to scientists that contributed to the development of orthodontics. 2. Postembryonic development of the craniofacial complex. 3. Basic orthodontic instruments and materials used in the construction of orthodontic appliances. 4. Basic techniques of orthodontic appliances construction 5. Orthodontic study casts 6. Orthodontic appliances: classification in removable, fixed and mixed orthodontic appliances. Parts, properties, advantages and disadvantages. 	
<i>Special Part</i>	
<ol style="list-style-type: none"> 1. Orthodontic springs and screws. Their application in the construction of orthodontic appliances. 2. Orthodontic anchorage: classification, choice of the proper anchorage, characteristics, design and construction of various orthodontic clasps. Construction of Adams, Schwarz, Jackson, Schneemann, triangular and ball end retainer clasps. 3. Orthodontic Hawley retainer: indication of use, step by step construction and modifications. 	
Case studies	
Lab	
<ol style="list-style-type: none"> 1. Construction geometric shapes 2. Construction of orthodontic springs 3. Welding and soldering of orthodontic wires 4. Construction of a labial arch 5. Construction of orthodontic clasps (Adams, Schwarz, Jackson, Schneemann, triangular and ball end clasps) 6. Fabrication of a Hawley retainer and jackscrew fitting for expansion. 	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • have the necessary knowledge about orthodontic appliances, their function and applications. • have acquired the theoretical and practical knowledge about the step by step 	

construction of an orthodontic appliance.

- be able to modify orthodontic wires into simple geometrical shapes.
- be able to modify orthodontic study casts.
- be able to construct orthodontic springs and retainer clasps.
- be able to construct simple orthodontic appliances.

REFERENCES

1. Μαρκοστάμου Κ.: Εισαγωγή στην εργαστηριακή ορθοδοντική. Εκδόσεις Σταμούλης, Αθήνα 2000
2. Σπυροπούλου Μ.: Εργαστηριακά μαθήματα Ορθοδοντικής, Αθήνα 1982
3. Σπυροπούλου Μ. Ν.: Μορφογένεση και αύξηση του κρανιοπροσωπικού συμπλέγματος. Αθήνα 1983
4. Σπυροπούλου Μ.: Βασικές αρχές ορθοδοντικής. Τόμος πρώτος. Εκδόσεις Λίτσας, Αθήνα 1990
5. Σπυροπούλου Μ.: Βασικές αρχές ορθοδοντικής. Τόμος Δεύτερος. Β' Έκδοση. Εκδόσεις Βήτα, Αθήνα 2004
6. Tenti F.: Άτλας ορθοδοντικών εφαρμογών. Μετάφραση: Κ. Μαρκοστάμος. Εκδόσεις Μπονισέλ, Αθήνα 1990
7. Enlow D.H.: Facial growth. 3rd edition. W.B. Saunders Company, 1990
8. Graber T. M., Neumann B.: Removable Orthodontic appliances. W.B.Saunders Company, Philadelphia, London, Toronto, 1977
9. Graber T., Swain B.: Orthodontics, current principles and techniques. CV Mosby Co., St. Louis 1985
10. Kahl-Nieke B: Einführung in die Kieferorthopädie. 2. Auflage. Urban & Fischer Verlag, München, Jena, 2001
11. Moyers R.E.: Handbook of Orthodontics. Year Book Medical Publishers, Chidago 1988

TITLE	FIXED PROSTHODONTICS II
CODE NUMBER	ODO401
TYPE	Theory, Lab (C)
CATEGORY	SS
TEACHING HOURS/ WEEK	2 Theory + 9 Lab
ECTS	9
SEMESTER	V
OBJECTIVE	The students will acquire the necessary scientific and applied knowledge which will enable them to design and fabricate various types of bridges, according to contemporary trends and materials.

DESCRIPTION**Theory**

Structure of dental bridges. Conditions, indications and contra-indications. The parts of a dental bridge. Abutment, retainer, pontic. Basic principles of design. Types of bridges. Alloys. Selection and use.
 Welding. Materials and methods.
 Fixed prostheses, without metal framework. Composite resins, fortified polymers. Aesthetic coatings, materials and methods.
 Temporary prostheses.

Lab

Lab exercises include:

Fabrication of casts with removable stumps, cutting and preparation of stumps, mounting on the articulator.
 Fabrication of a single-piece cast full-metal bridge. Fabrication of full-metal bridge by soldering its parts. Manufacture of casters, metal framework with labial veneering.
 Telescopic bridge.
 Veneering of the metal framework of bridges with thermopolymerizing resins and light curing resins, with silica bonding method.
 Fabrication of anterior bridge without metal framework. Fabrication of labial veneers inlays and crowns using fortified polymers.
 Case studies.

EXPECTED LEARNING OUTCOMES

At the end of the course, students will:

- be aware of the necessity of a bridge in dental restoration.
- have acquired the scientific knowledge on the essential principles of bridge fabrication.
- be familiar with the up-to-date trends in dental technology and biomaterials.
- have acquired the necessary qualifications for a regulated profession and competitiveness.

BIBLIOGRAPHY :

Greek :

1. Dimitropoulou E. The laboratory procedure in Fixed Prosthodontics. Self edition. Athens 2004
2. Antonopoulos A, Contemporary Fixed Prosthodontics. Ed. Symmetria Athens 1993
3. Gonidis D. Guide of exercises in Fixed Prosthodontics's Laboratory. Ed. Bonissel
4. Lomvardas G. Prosthetics, Ed. Melissa 1987

Foreign:

1. Shillinbourg T., Hobo S., Whitsett D., Fundamentals of Fixed Prosthodontics, Εκδόσεις Quintessence 1981
2. Miller L., Esthetic Guidelines for Restorative Dentistry, Εκδόσεις Quintessence 1980
3. Tylman S., Malone W., Θεωρία και Πράξη της Ακίνητης Προσθετικής (ελληνική μετάφραση) Εκδόσεις Μπονισέλ 1978
4. Jonston F., Phillips W., Dykema W., Modern Practice in Crown and Bridge Prosthodontics Εκδόσεις W.B.Saunders Co, Philadelphia 1971

SUBJECT TITLE	MANAGEMENT OF OCCLUSION AND DYSFUNCTIONAL DISORDERS OF STOMATOGNATHIC SYSTEM
SUBJECT CODE NUMBER	OΔO502
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3
ECTS	5
SEMESTER	V'
OBJECTIVE	
Students will trained in diagnosis and management of dysfunctional problems of stomatognathic system due to occlusal abnormalities	
SUBJECT DESCRIPTION	
<ol style="list-style-type: none"> 1. Occlusion analysis & Occlusal schemes. Determinants of occlusal morphology and function 2. Rules of occlusal adjustment and equilibration in natural dentition and in fixed prosthodontics. 3. Occlusion in osseointegrated fixture supported prostheses. Analysis of the required particularities in occlusion of implant prostheses. 4. Principles and types of articulators. Familiarization with various types of semi adjustable articulators such as Hanau, Whip mix, Denar. Face bow recordings. 5. Waxing-up techniques of occlusal surfaces. Teaching of Thomas technique for making occlusal surfaces for fixed prostheses. 6. Occlusal appliances- Types- Function. Fabrication steps of full-coverage and partial coverage splints. 7. Occlusal management of patients with dysfunctional problems of stomatognathic system (bruxism, internal derangement of TMJ). 	
EXPECTED LEARNING OUTCOMES	
At the end of the course, students will:	
<ul style="list-style-type: none"> • know the rules of occlusion in various prostheses. • be familiar with articulators, so that they are able to use them in everyday lab work. • be able to prepare, in cooperation with the dentist, the occlusion before the prosthesis fabrication. • know how to make various types of splints. • Know how to rehabilitate the occlusion in patients with dysfunctional problems of the stomatognathic system 	
BIBLIOGRAPHY :	
<ol style="list-style-type: none"> 1. Wheeler R.: Dental anatomy, physiology and occlusion. WB Saunders Co. Philadelphia, London, Toronto, 1974. 2. Okeson J.: Management of Temporomandibular disorders and occlusion. 4th Ed. Mosby. St. Louis 1998. 3. Dawson P.: Evaluation, Diagnosis and Treatment of occlusal problems. Mosby. St. Louis 1989. 4. Ash MM, Ramfjord PS: An introduction to functional occlusion. WB Saunders Co., Toronto 1982. 	

SUBJECT TITLE	ORTHODONTICS II
SUBJECT CODE NUMBER	OΔO503
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 3 Lab
ECTS	7
SEMESTER	V
OBJECTIVE	
Students will acquire the necessary scientific and applied knowledge, which will enable them to fabricate all types of orthodontic appliances.	
SUBJECT DESCRIPTION	
Theory	
Laboratory work keeps pace with theory classes, as far as possible, so that students can put into practice what they learn in theory.	
<ol style="list-style-type: none"> 1. Bite planes: function and step by step construction. 2. Palatal and lingual arches. Step by step construction and their modifications. 3. Rapid palatal expander. Function, step by step construction and their modifications.. 4. Space maintenance removable and fixed appliances. Use, indication, step by step construction and their modifications. 5. Removable and fixed retainers. Step by step construction and their modifications. 6. Orthodontic appliances to prevent bad habits. Use, indications. Function. Step by step construction and their modifications. 7. Functional orthodontic appliances. Principles of function, description, step by step construction. Modifications of functional appliances such as Activator, Bionator, Fränkel, and Delaire mask, Crozat and Twin Block. 8. Repair of orthodontic appliances. 9. Case studies 	
Lab	
<ol style="list-style-type: none"> 1. Construction of an bite plane 2. Construction of a lingual arch 3. Construction Construction of the Hawley Labial arch 4. Construction of a Rapid Maxillary Expansion Appliance 5. Construction of the Nance appliance for anchorage 6. Construction of the Goshgarian palatal bar. 7. Construction of the Quad Helix appliance. 8. Demonstration of an orthodontic splint fabrication with the use of the Biostar apparatus 9. Construction of the Bionator functional appliance 	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • have acquired the necessary knowledge about the function and use of orthodontic appliances • be able to construct all types of orthodontic appliances. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Μαρκοστάμου Κ.: Εισαγωγή στην εργαστηριακή ορθοδοντική. Εκδόσεις 	

Σταμούλης, Αθήνα 2000

2. Σπυροπούλου Μ.: Εργαστηριακά μαθήματα Ορθοδοντικής. Αθήνα 1982
3. Σπυροπούλου Μ. Ν.: Μορφογένεση και αύξηση του κρανιοπροσωπικού συμπλέγματος. Αθήνα 1983
4. Σπυροπούλου Μ.: Βασικές αρχές ορθοδοντικής. Τόμος πρώτος. Εκδόσεις Λίτσα, Αθήνα 1990
5. Σπυροπούλου Μ.: Βασικές αρχές ορθοδοντικής. Τόμος Δεύτερος. Β' Έκδοση, Εκδόσεις Βήτα, Αθήνα 2004
6. Tenti F.: Άτλας ορθοδοντικών εφαρμογών. Μετάφραση: Κ. Μαρκοστάμου. Εκδόσεις Μπονισέλ, Αθήνα 1990
7. Graber T. M., Neumann B.: Removable Orthodontic appliances. W.B.Saunders Company, Philadelphia, London, Toronto, 1977
8. Graber T., Rakosi T., Petrovic A.: Dentofacial Orthopedics with functional appliances. Mosby, St. Louis 1985
9. Graber T., Swain B.: Orthodontics, current principles and techniques. CV Mosby Co., St. Louis 1985
10. Moyers R.E.: Handbook of Orthodontics. Year Book Medical Publishers, Chidago 1988
11. Proffit W., Fields H.: Contemporary Orthodontics. Mosby Year Book, St. Louis 1994
12. Wirtz U.: O-Atlas der kieferorthopädischen Technik. Fa. Dentaurum, Germany 2006

SUBJECT TITLE	DENTAL CERAMICS I
SUBJECT CODE NUMBER	ΟΔΟ601
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 9 Lab
ECTS	10
SEMESTER	VI'
OBJECTIVE	
Students will acquire the necessary scientific and applied knowledge which will enable them to design and fabricate fixed metal ceramic prostheses in accordance with the up-to-date trends and techniques.	
SUBJECT DESCRIPTION	
Theory	
The course is divided into theory and laboratory classes. Lab classes keep pace with the theory ones, as far as possible, so that students can put into practice what they learn in theory.	
Theory is composed of the following units:	
Introduction – dental porcelain (overview) – terminology for dental ceramic prostheses – parts of a metal ceramic fabrication – steps of metal ceramic fabrications (generally).	
Dental porcelain: composition, mechanical and physical properties, advantages, disadvantages, porcelain classification.	
Metal Ceramic Alloys: titanium, alloy selection criteria, metal ceramic bond.	
Study (diagnostic) cast, working cast with removable abutments. Crown – bridge wax pattern.	
Rules of metal framework design in metal ceramic fabrications. Mechanical behavior of dental metal ceramic fabrications. Principles of design.	
Design of single metal ceramic crowns. Design of multiple units (bridges-splints).	
Sprues, refractory investment coating, dewaxing, preheating, casting.	
Finishing process of a metal framework, oxidation, metal ceramic bond failure.	

Structure – porcelain curing: tools, materials, techniques.
 Staining and glazing, aesthetics, finishing and polishing of the metal framework.
 Ceramics for titanium, porcelain, devices, techniques.
 Case studies.

Lab

Fabrication of dies with removable abutments. Abutment cutting and preparation.
 Mounting on the articulator.

Construction of a wax pattern for metal ceramic crowns and bridges. Sprue placement, refractory investments, dewaxing, preheating, casting. Sprue cleaning, preparation of the metal framework, oxidation.

Porcelain structure and bake: διαδοχική τοποθέτηση των στρωμάτων του κεραμικού υλικού (opaque bake - dentin - enamel), condensation, maturation.

Porcelain staining and glazing, aesthetics, finishing and polishing of the metal framework .

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- be aware of the necessity for oral restoration with a fixed prosthesis (bridge-crown).
- know, in theory and in practice, the fabrication steps of metal ceramic restorations.
- know which phases are their own responsibility and how to cooperate harmoniously with the dentist.
- know the variations of modern metal ceramic restorations that constitute part of the everyday dental technology procedure.
- have acquired the necessary qualifications for a regulated profession and competitiveness.

REFERENCES

1. Ανδριτσάκη Δ.Π. Ολοκεραμικές αισθητικές αποκαταστάσεις. Εκδόσεις Αδάμ, Αθήνα, 1994
2. Ανδριτσάκη Δ.Π. Ακίνητη επανορθωτική οδοντιατρική. Εκδόσεις Ζαχαρόπουλος, Αθήνα, 2002
3. Αντωνόπουλου Α. Σύγχρονη ακίνητη προσθετική. Εκδόσεις Συμμετρία, Αθήνα , 1993
4. Καρούσια Ν., Μπαλτζάκη Γ., Σταθόπουλου Α. Οδοντιατρικά βιουλικά. Εκδόσεις ακίδα, Αθήνα, 1994
5. Kuwata M. Theory and practice for ceramo-metal restorations. Εκδόσεις Quintessence, Chicago, 1979
6. Mc Lean W. The science and art of dental ceramics. Εκδόσεις Quintessence, Chicago, 1980
7. Shillinburg HT, Hobo S, Whitsett LD, Jacobi R, Brackett ES. Fundamentals of fixed prosthodontics. Quintessence publ co, Chicago, 1997

SUBJECT TITLE	MAXILLOFACIAL PROSTHODONTICS
SUBJECT CODE NUMBER	ΟΔΟ602
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3

ECTS	4
SEMESTER	VI'
<p>OBJECTIVE</p> <p>Students will acquire the usefulness of maxillofacial prosthetics and, more specifically, the laboratory part of maxillofacial prostheses fabrication.</p>	
<p>SUBJECT DESCRIPTION</p> <p>The course is immiscibly theoretical and it is divided due to practical reasons into general and specific part.</p> <p>GENERAL PART.</p> <ol style="list-style-type: none"> 1. Introduction and brief historical review. The theoretical knowledge of the developmental steps of maxillofacial prosthodontics is essential for the thorough comprehension of the modern aspects of the specialty. 2. Epidemiological data. Acquired, congenital and developmental defects of the maxillofacial complex. The fundamental value of treatment planning. 3. Maxillofacial prostheses materials. Physicomechanical properties. Chemistry and types of silicone materials. Selection, handling, polymerization, finishing. Devices. 4. Color, stains, methods of color customization in order the prosthesis to be fully incorporated at the surrounding facial tissues. Modern technology for color evaluation. <p>SPECIFIC PART.</p> <ol style="list-style-type: none"> 1. Intraoral defects. Step by step laboratory technique for the construction of an obturator for edentulous or dentate patient. Pharyngeal obturator. Prosthodontic rehabilitation of the mandibulectomy patient. 2. Facial defects. Laboratory technique for the construction of auricular, orbital and nasal prostheses. 3. The impact of endosseous implants on maxillofacial prosthetics. <p>During the semester, students in teams of four to five members, undertake to work out a review study about a specific theme. During the last 2 to 3 weeks of the semester, the studies are delivered to the teacher and presented into the classroom.</p> <p>The fabrication of a facial prosthesis is the most difficult among prosthodontics for both the dentist and the dental technician. The difficulty depends upon the individuality of each work, the character of the patient itself and the complexity of the materials used for such a demanding restoration.</p> <p>EXPECTED LEARNING OUTCOMES</p> <ol style="list-style-type: none"> 1. Initially the student understands the subject of maxillofacial prosthodontics. 2. Experiences the lab steps of maxillofacial prostheses construction. 3. Becomes familiar with the appropriate materials, methods and devices. 4. Learns how to harmonically cooperate with the dentist for this kind of works. <p>REFERENCES</p> <ol style="list-style-type: none"> 1. Yannikakis S. Notes in Maxillofacial prosthetics. Laboratory techniques. TEI of Athens. 2003. 2. Yannikakis S. Complete dentures. Laboratory techniques. Bonicel. Athens 2003. 3. Δημητρίου Π, Ζήση Α, Καρκαζή Η, Πολυζώη Γ, Σταυράκη Γ: Κινητή Προσθετική. Ολικές Οδοντοστοιχίες. 4η έκδοση. Εκδόσεις Μπονισέλ. Αθήνα 2001 4. Καρκαζή Η, Πολυζώη Γρ: Εισαγωγή στη γηροδοντιατρική και γναθοπροσωπική προσθετική. Β' Έκδοση. Εκδόσεις Μπονισέλ. Αθήνα 1998 5. Taylor T: Clinical maxillofacial prosthetics. Quintessence. China 2000 	

6. Thomas K: Prosthetic rehabilitation. Quintessence Publ. Co. Ltd., London 1994

SUBJECT TITLE	IMPLANT PROSTHODONTICS
SUBJECT CODE NUMBER	OΔO603
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	6
ECTS	8
SEMESTER	VI'
OBJECTIVE	
Students will learn what an implant and osseointegration are and will study the forces and moments produced by an implant retained superstructure. They will also learn about the fabrication steps of an implant supported prosthesis and will get familiar with contemporary materials and fabrication techniques.	
SUBJECT DESCRIPTION	
The course consists of a cycle of theory classes. For educational reasons, it is divided into a general part and a special part comprising the corresponding units:	
GENERAL PART	
<ol style="list-style-type: none"> 1. History overview. Brief reference to the evolution of implants. 2. Analysis of the various choices a patient has for the restoration of edentulism. Advantages, disadvantages, indications and contra-indications. 3. Familiarization with the terminology and the meaning of 'prognosis' and 'sustainability' 4. Study of effect of implants on masticatory performance. 5. Occlusal schemata in implant-supported prosthetics. 	
SPECIAL PART	
<ol style="list-style-type: none"> 1. Pre-prosthetic procedures. Case study, radiographical and surgical stent. Temporary restorations. 2. Complete or partial edentulism. Fixed implant prosthesis. Screw or cement retained implant restorations. Combination of metal frameworks with polymers or porcelain. 3. Implant retained overdentures. Retention elements- ball attachments, bar and magnet retainers. <p>During the semester, students take part in group assignments such as the preparation and presentation of a project on a specific topic, case studies, etc.</p> <p>The course "Implant Prosthodontics" can neither cover all cases, as they are innumerable, nor present all available implant systems on the market today, which are really more than enough. Its ultimate goal is to inform the students, make them think about and motivate them to study about the innovative specialty of Prosthodontics.</p>	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know what osseointegration is. • the existing possibilities and choices for edentulism restoration with implants. • know the dental technician's role in implant restoration and how to cooperate harmoniously with the dentist and his/her team. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Yannikakis S, Karkazis H. Implant prosthodontics. Laboratory techniques. 	

Bonigel. Athens 2007.
2. Bränemark P.-I, Zarb G, Albrektsson T: Tissue-integrated prostheses. Quintessence Publ. Co., Inc. Chicago 1985
3. Hobo S, Ichida E, Garcia L: Osseointegration and occlusal rehabilitation. Quintessence Publ. Co., Inc. Tokyo 1991
4. Spiekermann H. et al: Implantology. Thieme. New York 1995
5. White GE: Osseointegrated dental technology. Quintessence Publ. Co. Ltd. London 1993

SUBJECT TITLE	DENTAL CERAMICS II
SUBJECT CODE NUMBER	OΔO701
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 4 Lab
ECTS	8
SEMESTER	VII'
OBJECTIVE	
Students will acquire the necessary scientific and applied knowledge which will enable them to design and fabricate fixed all-ceramic prostheses (crowns, bridges, inlays, onlays, veneers) in accordance with the up-to-date trends and fabrication techniques..	
SUBJECT DESCRIPTION	
The course is divided into theory and laboratory classes.	
Theory	
1. Introduction to all-ceramic systems, historical overview	
2. Advantages, disadvantages, indications, contra-indications for all-ceramic systems	
3. Categories of all-ceramic systems.	
4. The In-Ceram technique: description of the technique for the fabrication of all-ceramic crowns, bridges, inlays, onlays and veneers.	
5. The IPS- Empress technique: description of the technique for the fabrication of all-ceramic crowns, bridges, inlays and onlays.	
6. All-ceramic inlays and onlays: types of inlays, advantages, disadvantages, indications, contra-indications.	
7. Fabrication of all-ceramic inlays and onlays using the In-Ceram technique.	
8. Fabrication of all-ceramic inlays and onlays using the IPS-Empress technique.	
9. All-ceramic labial veneers: advantages, disadvantages, indications, contra-indications.	
10. Lab steps of all-ceramic investment veneers using the refractory technique.	
11. Up-to-date all-ceramic systems: the Celay – In Ceram system, CAD-CAM systems, the Procera system, etc.	
12. All-ceramic systems and implants – assessment of all-ceramic systems.	
13. Electroforming-Galvanoceramics: materials, techniques	
14. Case studies	
Lab	
1. Manufacture of an all-ceramic crown using the In ceram technique: constructing a working cast, duplication of the working cast, mixture and construction of the slip, application of the slip to the abutments, core construction, fusion, infiltration, constructing and glazing a crown.	
2. Manufacture of an all-ceramic crown using the IPS-Empress technique: construction of a working cast with removable abutments, abutment waxing, placement in the ring, application of coating material, dewaxing, pressure casting in the specific device, cast cleaning, crown making, final glazing.	
3. Manufacture of an all-ceramic inlay using the Vita technique or the simple technique.	

4. Manufacture of all-ceramic labial veneers using the refractory investment technique.
5. Manufacture of all-ceramics using the CAD-CAM system.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the contemporary all-ceramic systems and their use
- know in theory and in practice the fabrication steps of the mostly used contemporary all-ceramic prostheses.
- know which phases are their own responsibility and how to cooperate harmoniously with the dentist.
- know all variations of contemporary all-ceramic restorations that are nowadays part of the everyday dental procedure.

REFERENCES

1. Ανδριτσάκη Δ.Π. Ολοκεραμικές αισθητικές αποκαταστάσεις. Εκδόσεις Αδάμ, Αθήνα, 1994
2. Ανδριτσάκη Δ.Π. Ακίνητη επανορθωτική οδοντιατρική. Εκδόσεις Ζαχαρόπουλος, Αθήνα, 2002
3. Αντωνόπουλου Α. Σύγχρονη ακίνητη προσθετική. Εκδόσεις Συμμετρία, Αθήνα, 1993
4. Καφούσια Ν., Μπαλτζάκη Γ., Σταθόπουλου Α. Οδοντιατρικά βιουλικά. Εκδόσεις ακίδα, Αθήνα, 1994
5. Beham G. IPS-Empress: a new ceramic technology. Ivoclar – vivadent report, 6:1-13, 1990
6. Dietschi D, Spreafico R. Adhesive metal-free restorations. Quintessece publ co, Chicago, 1997
7. Garbers D, Goldstein R, Freiman R., Porcelain laminate veneers. Quintessece publ co, Chicago, 1988
8. Garber D, Goldstein R. Porcelain and composite inlays and onlays. Quintessece publ co, Chicago, 1994
9. La Hoste L, Bruggers K. Dental ceramics: A comparison of current systems. Quintessece of Dental technology 14,91-94,1990,1991
10. McLean j, Kedge M. High strength ceramics, στο proceedings of the 4th International symposium on ceramics. Quintessece publ co, Chicago, 1988
11. Shillinburg HT, Hobo S, Whitsett LD, Jacobi R, Brackett ES. Fundamentals of fixed prosthodontics. Quintessence publ co, Chicago, 1997
12. Sorensen J, Knobe H, Torres T. In Ceram All ceramic bridge technology. Quintessence of dental technology 15, 41-46, 1992

SUBJECT TITLE	REMOVABLE PROSTHODONTICS III
SUBJECT CODE NUMBER	ΟΔΟ702
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 4 Lab
ECTS	8
SEMESTER	VII'
OBJECTIVE	
Students will get to know the laboratory part of fabricating overdentures, copy dentures as well as the application of modern techniques and materials used in complete denture base such as soft lining materials and various reinforcements.	

SUBJECT DESCRIPTION

The course is divided into theory and laboratory classes. Laboratory classes follow theory classes, as far as possible, so that students put into practice what they learn in theory.

Theory

1. Conventional complete dentures and overdentures and copy dentures. Comparison, similarities, differences, advantages-disadvantages.
2. Essentials of Anatomy and Physiology of the Stomatognathic System related to the function, the practical meaning and very often the necessity for the fabrication of this type of prostheses.
3. Retention elements-Precision attachments used in overdentures.
4. Technology provides the lab with a variety of materials that give solutions to everyday problems of modern prosthetics. Soft lining materials can be applied in a high percentage of patients who cannot stand contact of the hard and unyielding denture base with the mucous membrane. Essentials of chemistry and physicommechanical properties of soft lining materials. Scientific knowledge of the physicommechanical properties helps in selecting the best and most appropriate material and technique.
5. Denture base reinforcement. Material selection.
6. Case study.

Lab

1. Overdentures: Laboratory process – Fabrication steps.
2. Copy dentures: Laboratory process. Fabrication steps. Copy, or copy and improvement of some elements of a denture are frequent cases in everyday clinical and laboratory practice.
3. Soft liners. Laboratory process - Fabrication steps.
4. Denture base reinforcement. Laboratory process of incorporating reinforcing materials. Metals, glass fibers, high-impact resins.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know the variations or modifications of a complete denture so that it functions in each environment.
- know the materials and techniques used in these specialized prostheses.
- fabricate overdentures and copy dentures.
- use modern materials and techniques in combination with the conventional acrylic resin such as in the use of soft liners or base reinforcement with various reinforcing materials and techniques.

REFERENCES

1. Βλησίδη Δ: Οδοντοπροσθετική ΙΙ (συμβατικές, άμεσες, ενδιάμεσες, επένθετες). Εκδόσεις Λίτσας, Αθήνα 1987
2. Γιαννικάκη Σ: Ολικές Οδοντοστοιχίες. Εργαστήριο. Εκδόσεις Μπονισέλ. Αθήνα 2003
3. Δημητρίου Π, Ζήση Α, Καρκαζή Η, Πολυζώη Γ, Σταυράκη Γ: Κινητή Προσθετική. Ολικές Οδοντοστοιχίες. 4η έκδοση. Εκδόσεις Μπονισέλ. Αθήνα 2001
4. Geering AH, Kundert M, Kelsey CC: Complete denture and overdenture prosthetics. Thieme Medical Publ Inc. NewYork 1993
5. Hayakawa I. Principles and practices of complete dentures: creating the mental image of a denture. Quintessence Pub. Tokyo 2001

6. Preiskel HW. Overdentures Made Easy: a guide to implant and root supported prostheses. Quintessence Pub. London 1996

SUBJECT TITLE	COMBINED PROSTHODONTICS- PRECISION ATTACHMENTS
SUBJECT CODE NUMBER	OΔO703
SUBJECT TYPE	Theory, Lab (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3 Theory + 4 Lab
ECTS	8
SEMESTER	VII'
OBJECTIVE	
Students will learn the theoretical bases and technical applications of precision attachments, on the one hand, and the practical application of theoretical knowledge through fabricating a combined prosthetic work in the lab, on the other.	
SUBJECT DESCRIPTION	
Theory	
For educational reasons, the course is divided into a General Part and a Special Part. The General Part includes the topics of precision attachment classification, advantages and disadvantages, indications and contra-indications, connecting precision attachments to fixed prosthesis, tools and instruments used in the application of precision attachments, various views on the problem of partial dentures with free ends. The Special Part refers to the classification of prefabricated precision attachments and their application. More specifically, to the intracoronal, extracoronal, stud, bar and auxiliary attachments.	
Case study.	
Lab	
Put theory into practice. More specifically, with the use of maxillary casts, students learn the following procedures:	
<ol style="list-style-type: none"> 1. Creating wax patterns for fixed prostheses, placement of precision attachments. 2. Milling of fixed prostheses using a dental surveyor. This stage also includes milling of wax patterns for reception of attachments. 3. Casting, polishing and finishing of fixed prostheses. 4. Study and design of the metal framework of a partial denture. 5. Study and design of a fixed prosthesis. 	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • know the meaning and usefulness of precision attachments and how they can connect fixed to removable prostheses. • know the theoretical bases and application techniques of precision attachments. • be able to apply prefabricated and laboratory-fabricated precision attachments. • be able to study and analyze casts so they can fabricate a fixed or removable prosthesis that will be retained by a precision attachment. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Βλησίδη Δ. Οδοντοπροσθετική ΙΙΙ. 1η Έκδοση. Αθήνα, 1987. Σελ 496-526 2. Jumber JF. An atlas of overdentures and attachments. 1st ed. Chicago: Quintessence Publishing Co, 1981. Σελ. 99-238 3. Priskel HW. Precision attachments in dentistry. 2nd ed. St. Louis : CV Mosby 	

Co. 1973. Σελ. 22-171
4. Priskel HW. Overdenture made easy. A guide to implant and root supported prostheses. 1st ed .London : Quintessence Publishing Co, 1996. Σελ.45-170
5. Sherring M, Partin P. Attachments for prosthetic dentistry.1st ed. London : Quintessence Publishing Co, 1994. Σελ. 14-79
6. Tylman SD, Melone W.F. Tylman's theory and practice of fixed prosthodontics (Ελληνική έκδοση) 7η ed. St Louis : CV Mosby, 1978. pp.729-824

SUBJECT TITLE	ENGLISH FOR DENTAL TECHNOLOGY
SUBJECT CODE NUMBER	ΟΔΟ704
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	3
ECTS	3
SEMESTER	VII'

OBJECTIVE

Students will acquire the necessary English terminology used in dental technology and dentistry.

SUBJECT DESCRIPTION

Authentic texts, taken from books, manuals, scientific journals and articles, on dental technology topics are used for language analysis (grammar, lexis, register) of the specific field and for developing the skills in discourses and genres appropriate to those activities. More specifically, units included are:

Dental Anatomy, Prosthodontics (crowns, inlays, bridges, wax patterns, artificial teeth), Dental Ceramics, Prosthodontic Restorations, Endodontic Anatomy, Orthodontic Retention, Introduction to Dental Materials, Dental laboratory - Equipment.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- understand all kinds of documents related to dental technology.
- be able to use foreign bibliography.
- be able to participate in European programs.
- be able to find sources and retrieve information.
- be able to participate in post-graduate programs and seminars.
- be competitive in the European labor market.

REFERENCES

1. Αγγλο-Ελληνικό λεξικό Οδοντιατρικών Όρων, Σπυρόπουλου Δ., Σπυροπούλου Μ., Σπυρόπουλου Ν., Αθήνα 1966
2. Σύγχρονο αγγλοελληνικό λεξικό οδοντιατρικών όρων. Εκδόσεις Μπονισέλ. Αθήνα 1981
3. Blakeslee R, Renner R, Shiu A. Dental Technology. Theory and practice. The CV Mosby Co. St Louis 1980
4. Graig R.G.: Restorative dental materials. 8th ed. The C.V. Mosby Company. 1989
5. Glossary of Prosthodontic Terms. 7th ed, J Prosthet Dent 1999

SUBJECT TITLE	DISSERTATION
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SUBJECT CODE NUMBER	OΔO801
SUBJECT TYPE	(C)
SUBJECT CATEGORY	SS
WEEKLY TEACHING HOURS	
ECTS	20
SEMESTER	VIII'
OBJECTIVE	
Students will learn how to do in depth research on a topic of their specialty, and all steps of writing a research paper, such as choosing a topic, finding information, stating a thesis, making an outline and so on.	
SUBJECT DESCRIPTION	
During the last semester of their studies, students have to prepare a dissertation on a topic directly related to their specialty. Topics are proposed by the teaching staff of the Department. Each student is supervised by a member of the teaching staff. Upon completion of the dissertation, students have to present and defend it in front of a three-member committee composed of the teaching staff of the Department. Other teaching staff members as well as students can attend the defense presentation.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will be able to:	
<ul style="list-style-type: none"> • participate in a research group. • prepare and write a research paper. • evaluate research results. 	
BIBLIOGRAPHY :	
Proposed by the supervisor in cooperation with the student and in accordance with the research topic.	

SUBJECT TITLE	PRACTICAL WORK
SUBJECT CODE NUMBER	OΔO802
SUBJECT TYPE	Practice (C)
SUBJECT CATEGORY	
WEEKLY TEACHING HOURS	40
ECTS	10
SEMESTER	VIII'
PREREQUISITES	Students must have successfully passed all specialty subjects according to the existing regulations.
OBJECTIVE	
Students are given the opportunity to put into practice, under real professional conditions, what they have been taught in theory and lab courses.	
SUBJECT DESCRIPTION	
During Practical Work, students are involved in all steps of dental prosthetics constructions of both Fixed and Removable Prosthetics.	
More specifically, they fabricate complete and partial dentures, inlays, crowns, bridges as well as metal ceramic or all-ceramic prostheses. In cases in which the laboratories are of high quality specialization, students can participate in implant or maxillofacial prostheses fabrications. Moreover, they fabricate orthodontic appliances. They also apply techniques such as the construction of plaster casts, wax patterns, casting of metal frameworks, construction of acrylic prostheses, finishing and polishing, etc.	

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- know how to design and fabricate dental prostheses in cooperation with other dental technicians and dentists and thus realize which phases are of their responsibility and which ones are the dentist's.
- know how to handle the necessary materials, tools and appliances required for the fabrication of high quality dental prostheses.
- know the workplace arrangement and function of a dental laboratory, the financial and technological factors affecting work conditions in it.
- be able to participate in production and service provision techniques and procedures .
- be able to correlate theory and lab knowledge they acquired during their studies in the Department to the problems of real dental laboratories.

**4.4 ADMINISTRATION-ECONOMY-LEGISLATION-HUMANISTIC STUDIES
SUBJECTS (AELHS)**

SUBJECT TITLE	PROFESSIONAL ETHICS
SUBJECT CODE NUMBER	OΔO405
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	AELH
WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	IV'
OBJECTIVE	
Students will learn about rules of conduct and standards of behavior based on the <i>principles of Professional Ethics</i> related to the profession they are going to enter.	
SUBJECT DESCRIPTION	
<ol style="list-style-type: none"> 1. Ethics - Morality – Ethical principles: definition of basic concepts. 2. Ethical theories and Types of Ethical theory: definition of the Teleological theory, the theory of Ethics, the theory of Justice and the theory of Egoism. 3. Anatomy of an ethical dilemma. What is an ethical dilemma and when does it arise? 4. Decision making methods. To make a right decision, one has to approach the problem after making certain moves. 5. The graduate's personality: social attributes, knowledge and ethical qualifications (ethics education) make up a personality that is remarkable and capable of facing ethical dilemmas with responsibility. 6. Ethics – Codes of Ethics – Biomedical Research Ethics: definition of ethics, code limitations and biomedical research ethics on the Declara of Helsinki (1964) basis – Patient rights. 7. Dentist Ethics: reference to all articles included in the in force Regulations. 8. Code of Ethics Regulations for Dental Technicians: reference to all articles included in the in force Regulations – Administrative sanctions. 9. Duties - Cooperation – Dentist-Dental Technician relationship. Responsibilities of a dental technician, responsibilities of a dentist. Principles of cooperation between dental technicians and dentists for reaching the best possible result. Instructions provided to the dental technician by the dentist for the manufacture of a prosthesis. Decisions taken by FDI (World Dental Federation, 1980) on dentist-dental technician relationship improvement. Dentists' contribution to the training of dental technicians. 	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	

- know the profession they have chosen to study.
- realize the importance of ethical issues.
- be aware of the ethical dilemmas they will face during practicing their profession and generally in their life, and which, unfortunately, day by day become more complex and serious for both the professionals and society.

REFERENCES

1. Κουτσελίνη Α. Βασικές Αρχές Βιοηθικής Ιατρικής Δεοντολογίας και Ιατρικής Ευθύνης. Εκδ. Παρισιάνος, Αθήνα 2000
2. Μήτση Φ.: Αναδρομές και Μνήμες (Από το οδοιπορικό της Ελληνικής Οδοντιατρικής). Εκδόσεις OmniPress, Αθήνα 1993
3. Beachamp Tom and Childress F.: Principles of Biomedical Ethics. Second edition. New York, Oxford University Press 1983
4. Bownie RS, Calman KC: Υγιής Σεβασμός (Η ηθική στη φροντίδα υγείας). Εκδόσεις Λίτσα 1997

SUBJECT TITLE	PRINCIPLES OF BUSINESS ADMINISTRATION AND LABORATORY ORGANIZATION
SUBJECT CODE NUMBER	ΟΔΟ506
SUBJECT TYPE	Theory (C)
SUBJECT CATEGORY	AELH
WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	V'
OBJECTIVE	
Students will be familiarized with the basic principles of business administration and organization and, more specifically, in connection with a dental laboratory.	
SUBJECT DESCRIPTION	
Theory classes, for educational reasons, are divided into thematic units:	
<ol style="list-style-type: none"> 1. Introduction to Business Administration/Organization- Historical overview, definition and value. Business environment, categorization of business units. 2. Business activity planning - Benefits - Barriers – Starting point. 3. Organization and production factors. Work factor. Machinery. Raw materials. 4. Production planning. Budget and control of operating costs. Quality control. 5. Staff management and supervision. Content. Staff recruitment process through Manpower Employment Organization (O.A.E.Δ.). Elements of Labour Law and Legislation in relation to the profession of dental technology. 6. Control. Function and usefulness. 7. Marketing. Definition, necessity and contribution. The client, client needs. The product. Defining and describing the ‘target client’. Site selection. 8. Pricing. Promotion and publicity. Sales - Advertising – Public Relations. 9. Interpersonal relationships and communication. 10. Quality Assurance Systems (Q.A.S). Quality Management System: ISO 9000. Prerequisites for the implementation of a Quality Management System, advantages. Certification: steps, time and cost. The role of advisors. 11. Elements of accounting and tax legislation. Book keeping. 12. Calculating net profits. 	

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will be:

- be familiarized with the concepts of business administration and organization and realize their usefulness.
- be familiarized with the function of planning business activity and site selecting process.
- know how to organize and equip.
- understand the value of budget and control of operating costs.
- understand the functions of staff supervision as well as the necessity for good interpersonal relationships, within the legislation that regulates their profession.

REFERENCES

- Κανελλοπούλου Χ.: Μάνατζμεντ-Αποτελεσματική Διοίκηση έκδοση ιδίου, Αθήνα 1990
1. Κανελλοπούλου Χ.: Εισαγωγή στην Οργάνωση και Διοίκηση Επιχειρήσεων, έκδοση ιδίου, Αθήνα 1994
 2. Κανελλοπούλου Χ.: Διοίκηση Μικρομεσαίων Επιχειρήσεων και επιχειρηματικότητα, έκδοση ιδίου, Αθήνα 1994
 3. Τζωρτζάκη Κ., Τζωρτζάκη Α.: Οργάνωση και Διοίκηση Επιχειρήσεων, έκδοση ιδίου, Αθήνα 1992
 4. Φλώρου Χ.: Σύγχρονη Διοικητική των Επιχειρήσεων, εκδόσεις Σύγχρονης Εκδοτικής, 1993
 5. Χυτήρη Λ.: Οργανωτική Συμπεριφορά, εκδόσεις Interbooks, Αθήνα 1996
 6. Bartol M. & Martin DVI: Management, USA, 1994
 7. Bateman/Snell: Building Competitive Advantage, 1996
 8. Griffin R.: Fundamentals of management, Cove Concepts and applications, USA 1997

SUBJECT TITLE	ENTREPRENEURSHIP
SUBJECT CODE NUMBER	ΟΔΟ605 (α)
SUBJECT TYPE	Theory (SC)
SUBJECT CATEGORY	AELH
WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	VI
OBJECTIVE	
Students will be familiarized with the concept of entrepreneurship and its importance for their professional choices.	
SUBJECT DESCRIPTION	
<ol style="list-style-type: none"> 1. Introduction. Definition. The businessman. The business man's characteristics 2. Business- a vital element of economy 3. Advantages of small and medium enterprises 4. Branches of small and medium enterprises, competitiveness 5. Legal status of small and medium enterprises 6. Location selection, premises layout 7. Opportunities to start in a SME, planning a SME, innovations 8. Franchising-concession 9. Finance for Small and Medium Enterprises 10. Marketing – consumer behaviour – pricing – promotion – distribution channels 11. Risks of a SME and administration insurance. 12. Human resource management. Management. Quality management and operating procedures 	

13. Small and Medium Enterprises in the EU
 14. Technology and computers in Small and Medium Enterprises
 15. Case studies

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will:

- be aware of the basic concepts of economy and the relationship between political and economic systems.
- know the role of business and businessmen in development.
- be able to tell the future trends that will define future entrepreneurship.
- be able to identify business opportunities of their interest.

REFERENCES

1. Ελληνικός Οργανισμός Μικρομεσαίων Μεταποιητικών Επιχειρήσεων και Χειροτεχνίας (EOMMEX), "Οδηγοί του Επιχειρηματία για Μικρές ή Μεσαίες Επιχειρήσεις", EOMMEX, Αθήνα, 1989
2. Κανελλόπουλου Κ., "Διοίκηση Μικρομεσαίων Επιχειρήσεων και Επιχειρηματικότητα", Αθήνα, 1987
3. Κυριαζόπουλου Π., Σύγχρονες μορφές Διοίκησης Μικρομεσαίων Επιχειρήσεων, Σύγχρονη εκδοτική, 1988
4. Μανατζμεντ Μικρομεσαίων επιχειρήσεων : Επιμέλεια έκδοσης Ι. Σίσκος-Κ. Ζαπουνίδης-Κ. Πάπτης, Πανεπιστημιακές εκδόσεις Κρήτης 1996
5. Longnecker J, Moore C., Petty W., Μανατζμεντ μικρομεσαίων επιχειρήσεων , εκδόσεις "ΕΛΛΗΝ" 1994
6. Bamberger I., Product/market strategies of small and medium - sized enterprises , published by Avebury, 1994, ISBN 185628963X
7. Handy Ch., "Understanding Organizations", 4th ed., Penguin Books, Middlesex, 1993
8. Holzer: Management education for small and medium - sized enterprises in the european communities , published by Unipub, 1992, ISBN928259842X
9. Meyer E., Allen K., Επιχειρηματικότητα και Διοίκηση Μικρών Επιχειρήσεων, εκδόσεις Έλλην, 2004
10. Mintzberg H., "The Structuring of Organizations", Prentice-Hall, 1979
11. Thurman J, Louzine A., Kogi K., Management of small and medium - sized industrial enterprises , published by Ilo Publication, 1988
12. Young J., Decision Making for Small Business management, published by Krieger publishing company, 1981m ISBN 089874346X

SUBJECT TITLE	PRINCIPLES OF HEALTH SERVICES ORGANIZATION & MANAGEMENT
SUBJECT CODE NUMBER	ΟΔΟ606 (β)
SUBJECT TYPE	Theory (SC)
SUBJECT CATEGORY	AELH
WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	VI

OBJECTIVE

Students will acquire the necessary knowledge in order to face the demands of Organizing, Administering and Managing Health Care and Social Units. The specific goals of the course are:

- development of skills and competencies in the implementation of management functions and in proper evaluation of modern developing management systems
- management of imminent financial issues and
- organization of services and sectors of Health Care and Social Units.

SUBJECT DESCRIPTION

Introduction to basic concepts of system and health services organization, administration and management. Structure of Health Care units and development of corresponding organization models. Human resource management, manpower management and needs assessment, staffing, contracting out and personnel evaluation. Development of incentives, job satisfaction level of the professional staff. Professional risk prevention measures, health and safety at work in large Health Care Units. Methods for communication policy and creation of specific factsheets for patient and population information on preventing and facing risks involved in medical, nursing and diagnostic procedures and practice. Analysis of the patient file and its usefulness in the application of modern medical diagnostic methods. Basic elements of each division, such as: patient movement office, patient accounting office, etc. Hospital supply process, analysis of hospital supply chain management. Working out a budget for Health Care Units. Pricing applications in medical services. Biomedical technology management. Development of integrated assessment system techniques with the use, at application level, of a complete statistical record with real data on indices of input-output sufficiency, efficiency, profitability-productivity. Applied research techniques in the field of Health Care Units aiming at patient satisfaction of medical diagnostic procedures.

EXPECTED LEARNING OUTCOMES

Upon completion of the course, students will possess knowledge about administration and health care units management environment, so that they can adapt to the demands of their working environment.

REFERENCES

1. Γούλα Α., (2007): Διοίκηση & Διαχείριση Νοσοκομείου: Η Ελληνική Εμπειρία και Πρακτική, εκδ. Παπαζήση
2. Ζηλίδης Χ., (2005): Αρχές και Εφαρμογές Πολιτικής Υγείας, Η Μεταρρύθμιση 2000-04, εκδ. Mediforce
3. Ζηλίδης Χ., κα., (2005): Προτυποποίηση Εντύπων Ενιαίας Λειτουργίας των Νοσοκομείων, έργο του Υπουργείου Υγείας Πρόνοιας και Κοινωνικής Αλληλεγγύης
4. Σούλης Σ., Γρίβας Θ., Γούλα Α., (1999): Οι δείκτες εκροών-αποτελεσμάτων ως βασικά μεθοδολογικά εργαλεία στις στατιστικές τεχνικές υλοποίησης προγραμμάτων διοίκησης ολικής ποιότητας στις υπηρεσίες υγείας, ΕΠΕΑΕΚ, Ενέργεια 3.1.δ.2., εκδ. ΤΕΙ-Αθήνας.
5. Γενικό Νοσοκομείο Νίκαιας «ΑΓΙΟΣ ΠΑΝΤΕΛΕΗΜΩΝ» (2002): Πενταετής Στρατηγικό και Επιχειρησιακό Σχέδιο Δράσης του Γενικού Νοσοκομείου Νίκαιας, ΤΕΙ-Α & Εθνική Σχολή Δημόσιας Υγείας, Αθήνα 2002
6. Fogel Paul (2003): Superior Productivity in Health Care Organizations: How to Get It, How to Keep It, Health Professions Press

7. Palfrey C., (2004): Effective Health Care Management: An Evaluative Approach, Blackwell Publishing
8. Sperry Len (2002): Effective Leadership: Strategies for Maximizing Executive Productivity and Health, Brunner-Routledge
9. William Zelman, Michael J. McCue, Alan R. Millikan, Noah D. Glick, (2003): Financial Management of Health Care Organizations: An Introduction to Fundamental Tools, Concepts, and Applications, Blackwell Publishers, 2nd edition

SUBJECT TITLE	SOCIOLOGY OF HEALTH
SUBJECT CODE NUMBER	ΟΔΟ705 (α)
SUBJECT TYPE	Theory (SC)
SUBJECT CATEGORY	AELH
ΕΒΔΟΜΑΔΙΑΙΕΣ ΩΡΕΣ ΔΙΔΑΣΚΑΛΙΑΣ	2
ECTS	3
SEMESTER	VII'
OBJECTIVE	
Students will broaden their knowledge in the subject matter of Sociology of Health in connection with various social groups and will acquire deeper understanding of the importance of attitudes towards health as well as of the importance of social factors affecting health.	
SUBJECT DESCRIPTION	
Introduction to the Sociology of Health & Illness. Linking of Sociology with Medical Sciences (common points of interest, goals, attitudes, interaction). Environment and Health. Social inequalities in health (gender, age, socioeconomic status, groups, information, etc.). Attitudes towards health – illness and family disorganization (cultural models και risky behaviours, population beliefs and behaviours, etc.). Expectations, conflicts, obstacles in facing health problems, views.	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • understand social phenomena in the field of health. • be aware of the importance of social factors related to health system. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Αγραφιότη Δ.: Υγεία, αρρώστεια, κοινωνία (Εκδόσεις Τυπωθήτω 2002) 2. Αγραφιότη Δ.: Πολιτιστικές Αβεβαιότητες (Ελληνικά Γράμματα 1999) 3. Σαρρή Μ.: Κοινωνιολογία της υγείας και ποιότητα ζωής (Εκδόσεις Παπαζήση 2004) 4. Τούντα Ι.: Κοινωνία και υγεία (Εκδόσεις Οδυσσέας / Νέα Υγεία 2000) 5. Drulhe M.: Santé et Societe (P.U.F. 1996) 6. Nettleton S.: Κοινωνιολογία της υγείας και της ασθένειας (εκδόσεις Τυπωθήτω 2002) 7. Turner B.S.: Medical Power and social Knowledge (London 1997) 	

SUBJECT TITLE	PRINCIPLES OF MARKETING
SUBJECT CODE NUMBER	ΟΔΟ706 (β)
SUBJECT TYPE	Theory (SC)
SUBJECT CATEGORY	AELH

WEEKLY TEACHING HOURS	2
ECTS	3
SEMESTER	VII'
OBJECTIVE	
Students will be familiarized with the basic concepts of Marketing as well as with the differences from and similarities to the other economic and social sciences.	
SUBJECT DESCRIPTION	
<ol style="list-style-type: none"> 1. Marketing science, decision making and strategic planning 2. About marketing in general, the role of Marketing within a business / Organization 3. The sphere of Marketing activities 4. Content and Marketing criticism 5. Economic and social environment of Marketing, in general 6. Information system and Marketing research (overview) 7. Labour market size and boundaries in Marketing activities 8. Market segmentation 9. Factors affecting product/service Pricing and Promotion in local, domestic, international and global markets 10. Consumer Marketing and Consumer Behaviour (overview) 11. Organization buying behaviour (overview) 12. Greek enterprises and Marketing 13. All units are accompanied by Case Studies and questions 	
EXPECTED LEARNING OUTCOMES	
Upon completion of the course, students will:	
<ul style="list-style-type: none"> • be familiarized with the social and economic environment in which enterprises and organizations develop. • know the Marketing Manager's duties in the workplace • know Marketing organization of the sector they are employed in. 	
REFERENCES	
<ol style="list-style-type: none"> 1. Βλαχοπούλου Μ., e-marketing :Πληροφοριακά Συστήματα και νέες τεχνολογίες στο Μάρκετινγκ, Εκδόσεις ROSILI, Αθήνα 1999 2. Μαλλιάρη, Π.: Εισαγωγή στο MARKETING, 1990 3. Παπαδημητρίου, Αθ. Αρχές Μάρκετινγκ, 1998 4. Πετράκης, Μ.: Έρευνα Μάρκετινγκ - Θεωρία και Πράξη, Εκδόσεις Σταμπούλη Α.Ε., Αθήνα 1999 5. Σιώμοκος Γ.: Συμπεριφορά Καταναλωτή και Στρατηγική Μάρκετινγκ, Εκδόσεις Α. Σταμπούλης, Αθήνα- Πειραιάς 1994. SANDHUSEN, R.: Μάρκετινγκ 6. Τσαγκλαγκάου, Αγγ.. : Βασικές Αρχές ΜΑΡΚΕΤΙΝΓΚ, Εκδ. Οίκος Αφων Κυριακίδη, Θεσσαλονίκη 2000 7. Τζωρτζάκη, Κ. : Αρχές Διοίκηση Μάρκετινγκ, Αθήνα 1993 Τζωρτζάκη, Κ / Τζωρτζάκη, ΑΛ: Αρχές Μάρκετινγκ - Η Ελληνική Προσέγγιση (Περιλαμβάνει και το Μάρκετινγκ με Νέες Τεχνολογίες). Εκδόσεις ROSILI, Αθήνα 2001 8. Boyd, H. / Walker, O. / Laresee, Z.K.: MARKETING και Εισαγωγή στη Διοίκηση Μάρκετινγκ. Εκδόσεις Παπαζήση, Αθήνα 2002 , Α' και Β' τόμος (Μετάφραση) 9. Evans J., Berman B.: Principles of Marketing, Prentice Hall, 6 ed 1994 10. Kotler, P.: Μάρκετινγκ Μάνατζμεντ (Μετάφραση). Εκδόσεις INTERBOOKS, 	

Αθήνα 1994

11. Lehmann D., Winer R.: Ανάλυση του Σχεδιασμού Μάρκετινγκ, Εκδόσεις Τρίαινα, Αθήνα 1993
12. Stanton W., Etzel M., Fundamentals of Marketing. McGraw-Hill, N.Y. 1991

5. USEFUL INFORMATION

5.1. BASIC SUBJECTS OF EACH SEMESTER

Students registered in the Semester I', beginning in the academic year 2008-2009, are obliged to pass all basic subjects, which provide them with the essential knowledge, successfully. Basic subjects are prerequisite, so in order to be allowed to attend basic subjects of one semester, students must have passed the basic subjects of the previous one. This regulation has been introduced and observed by the Rules of Procedure, Article 35, paragraph 1 of the Presidential Decree 160/2008. The chain of basic subjects is unbreakable from semester I up to semester VII.

The basic subjects of Semester I are:

1. Principles of Dental Technology
2. Dental Morphology
3. Anatomy

The basic subjects of Semester II are:

1. Removable Prosthodontics I
2. Dental Biomaterials I
3. Physiology

The basic subjects of Semester III are:

1. Removable Prosthodontics II
2. Dental Biomaterials II
3. Physiology of the Stomatognathic System – Occlusion

The basic subjects of Semester IV are:

1. Fixed Prosthodontics I
2. Orthodontics I

The basic subjects of Semester V are:

1. Fixed Prosthodontics II
2. Management of Occlusion and Dysfunctional Disorders of Stomatognathic System
3. Orthodontics II [T- L].

The basic subjects of Semester VI are:

1. Dental Ceramics I
2. Implant Prosthetics.

The basic subjects of Semester VII are:

1. Dental Ceramics II.
2. Removable Prosthodontics III.
3. Combined Prosthodontics – Precision Attachments

5.2 WEBSITE

(http://www.teiath.gr/seyp/dental_technology/)

The Department's website serves as a contemporary department presentation tool and a source of information about it. It operates on the basis of the structure defined by the Institution. More specifically, in addition to being an electronic studies guide, it provides information about the teaching staff, the special technical staff and the secretariat. The site is regularly updated with announcements, the course schedule, examination schedule and any information related to the Department. Dr. S. Yannikakis is responsible for the website.

5.3 INSTRUCTIONS FOR REGISTRATION RENEWAL

Given that registration renewals are now submitted electronically, the following instructions will help you apply correctly for your renewal registration.

- The online registration process will require the students to certify their **username** and **password**. The **alphabet** uses is the **Latin** one and attention must be given to **small** and **capital letters**.
- In case the password changes, attention must be given to CapsLock, as capital letters instead of small may be written.
- If the message <invalid username> or <The user cannot access the service> appears, it means that the account, after many unsuccessful tries, has been locked. Try again the next day, when account control and activation will have taken place.
- Attention must be given to symbols 1 and l [numerical 1 and the Latin small letter el], as there is a possibility to use the one instead of the other if they exist in your password.
- Student statement on the subjects to be attended or registration renewal [without stating optional subjects], are valid only **in the case the relative message [in green letters], that the registration or statement form has been successfully sent, appears on the screen**. This message will appear after you click on "Send".
- **After each registration or statement has been successfully sent electronically, an electronic report in .pdf file format is automatically created, which appears if you click on Applications-> Application stages**. This file can be printed or saved [if your PC does not have Acrobat Reader and you cannot open .pdf files, you can download it free from <http://www.adobe.com/downloads> by clicking on Get Acrobat Reader].

ATTENTION. Checking on registration/statement by the Electronic Data Processing system is made as soon as the user clicks on «Send» and not during entering data. If the registration/statement is considered unsuccessful, necessary corrections have to be made and click on «Send» again, up to the moment a report file is available.

- In the case students have no subjects to attend, but only practice work and/or dissertation preparation, they just click on “send” [i.e. **there are no options for practice work or dissertation preparation**].
- Attention must be given to the Compulsory with Option Subjects group, so that no more than the required number of subjects is stated. By clicking on <Groups> on the right upper side, you can see, analytically which subjects each group comprises.
- ATTENTION. Registration renewal is required until graduation ceremony.

5.4 ACADEMIC ADVISOR

The Department offers academic advising with the mission to assist students with all aspects of their academic planning while providing a foundation for appropriate academic decisions throughout their undergraduate studies. Admission office hours are provided on the official website of the Department.

5.5 POSTGRADUATE STUDIES

Since academic year 2006-2007, according to the provisions of Articles 10,11,12 of Law 2083/92 and paragraphs 12γ and 13 of Article 5 of Law 2916/01 and the Ministerial Decision 110697/E5/ 10.10.2003, the Dental School of the National and Kapodistrian University of Athens and the Department of Dental Technology of the Technological Educational Institution of Athens run a joint Post-graduate Program with the title “Dental Technology Materials”. The Dental School of the National and Kapodistrian University of Athens, according to Article 11, paragraph 1β of Law 2083/92, is responsible for the administration of the Program.

To be admitted as a regular post-graduate student, an applicant must have earned a bachelor's degree or its equivalent from a college, university, or technical school of acceptable standing as follows:

- a) Graduates of Dental Departments of Greek Universities or of equivalent and accredited foreign universities
- b) Graduates of the Department of Dental Technology of the Technological Educational Institution of Athens

Graduates of other Greek or equivalent and accredited tertiary education Departments of related disciplines

Secretariat office hours: Monday, Wednesday, Friday

11 a.m to 2 p.m.

Tel. : 210 5385618 και 210 5385868

E-mail : dentech@teiath.gr

6. MODULES

6.1 PHYSICS

1. Structure of matter. Solid
2. Mechanical properties of solids
3. Fluids in equilibrium
4. Fluids in motion
5. Real fluids
6. Molecular phenomena
7. Heat – Calorimetry
8. Heat – Phase changes
9. Heat – Phase changes (evaporation – sublimation)
10. Heat – Transfer mechanisms
11. Basic principles of Laser function
12. Ultrasound
13. Applications of ultrasound and Laser in dental technology

6.2 CHEMISTRY

1. Atomic structure
2. The Periodic system
3. Chemical bond
4. Solutions
5. Chemical equilibrium
6. Electrolytes – Acids & Bases
7. Colloids
8. Oxidation – Reduction
9. Elements of electrochemistry

10. Metals & metallic character
11. Properties of metals used in dental technology
12. Classification and nomenclature of organic compounds, Homologous series, Isomerism & Stereochemistry
13. Polymers – Polymerization. Polymer structure and properties

6.3 PRINCIPLES OF DENTAL TECHNOLOGY

1. Introduction. Basic principles of the profession of dental technology
2. Legislation on practicing the profession of dental technician and operating a dental laboratory
3. Specifications – location – necessary equipment for starting up a dental laboratory
4. Basic terminology – Introduction to Fixed Prosthetics
5. Basic terminology – Introduction to Removable Prosthetics
6. Basic terminology – Introduction to Orthodontics
7. Function of basic dental machines – appliances. Presentation in the laboratories of the Department
8. Machinery for alloy casting – sandblasting – welding
9. Ancient civilizations – Romans, Arabs – Byzantium – Middle Ages
10. Renaissance – beginning of 20 th century
11. Dental fabrication materials. Plaster – wax – refractory investments – alloys
12. Latest achievements: laser –computer - CAD-CAM technology– wireless color estimation.
13. Comparative presentation of the past and the present works and mechanical equipment (slide projection)

6.4 DENTAL MORPHOLOGY

1. Anatomy of the oral cavity – generally about teeth – tooth formation and eruption – blood perfusion and innervations of teeth
2. Tooth histology – nomenclature – deciduous and permanent teeth
3. Morphology of deciduous teeth – differences between deciduous and permanent teeth
4. Terminology of individual characteristics of permanent teeth – common anatomical features of teeth – surface division into thirds – tooth numbering
5. Morphology of permanent teeth – incisors – maxillary central and lateral – morphological differences between maxillary incisors
6. Permanent mandibular central and lateral incisors – morphological differences between mandibular incisors
7. Permanent maxillary and mandibular cuspids (canines) – morphological differences between cuspids
8. First and second maxillary premolars – morphological differences between maxillary premolars
9. First and second mandibular premolars – morphological differences between mandibular premolars
10. First and second maxillary molars – morphological differences between maxillary a and b molars
11. First and second mandibular molars – morphological differences between mandibular a and b molars
12. Third maxillary molar – third mandibular molar – morphological differences between maxillary and mandibular molars
13. Distinction between maxillary and mandibular teeth or between the right and left quadrant teeth – basic principles of occlusion

6.5 ANATOMY

1. Introduction: Analysis of the concepts Histology, Embryology, Anatomy, (systematic and topographic), Tissue, Organ. Overview of skin stem cells and of tissue emaciation and formation.
2. Tissues, Systems, Organs, Tissue types (epithelial, connective, muscle,

nerve), Systems
3. Skeletal system: Important functions of bones, cartilage, ligaments. Brief overview of all human bones. Analytical study of bones of the head. Overview of joints.
4. Muscular system: (muscle function, muscle types (protagonists, antagonists, and synergists, intrinsic, extrinsic). Overview of human muscle groups. Analytical study of muscles of the head.
5. Circulatory system: overview of blood system (heart, vessels) and of lymphatic system (lymph vessels, lymph nodes)
6. Digestive system: overview of the digestive tube (pharynx, esophagus, stomach, small and large intestine, liver, pancreas and spleen. Analytical study of the oral cavity and the salivary glands.
7. Respiratory system: overview of pharynx, larynx, trachea, bronchi, lungs. Analytical study of the nasal cavity
8. Excretory (urinary) system: overview and description of kidneys, ureters, urinary bladder and urethra
9. Reproductive system: overview of male and female sex organs
10. Circulatory system: overview of blood and lymphatic system. Heart, arteries, veins, capillaries. Lymph vessels, lymph nodes.
11. Nervous system: overview of the cerebrospinal and the autonomic nervous systems and of the peripheral nerves. Sense organs: overview of the five organs. Analytical study of taste. Endocrine glands: overview
12. Skeleton of the Head. Detailed description of cranial and facial bones
13. Head Muscles: Description of masseter muscles. Description of mimic muscles (facial muscles and calvaria). Description of suprahyoid muscles Oral cavity: Detailed description of the oral cavity and its subdivisions (oral vestibule, particularly the hollow part of the mouth). Description of lips, cheeks and gingiva. Description of the tongue and the taste sensory. Description of the palate. Reference to the nasal cavity and the tonsils. Salivary glands: Detailed description of parotids, submandibular and sublingual glands. Temporomandibular Joint (TMJ): Detailed description of the temporomandibular joint (glenoid fossa, mandibular condyle, joint cartilage,

bursa)

6.6 REMOVABLE PROSTHODONTICS I

1.	Historical Overview. Introduction to complete dentures. Elements of the anatomy and physiology of the Stomatognathic System related to complete dentures
2.	Factors related to the function of complete dentures
3.	Hygiene of complete dentures. Initial casts. Custom trays. Boxing of final impression.
4.	Final cast. Record bases-Wax rims. Articulators.
5.	Mounting on the articulator. Occlusion of complete dentures.
6.	Artificial teeth selection. Arrangement of anterior maxillary and mandibular teeth.
7.	Arrangement of posterior maxillary and mandibular teeth. Creation of balanced occlusion. Linear occlusion.
8.	Maintaining occlusal plane on the articulator. Flasking. Dewaxing
9.	Materials for fabrication of complete denture bases
10.	Posterior palatal dam. Packing, curing. Microwave curing method
11.	Deflasking. Processing. Polishing-finishing of a complete denture
12.	Selective grinding. Repair of complete dentures
13.	Immediate complete dentures

6.7 DENTAL BIOMATERIALS I

1.	Introduction to Biomaterials. Historical overview
2.	Structure of the atom. Types of bonds
3.	Crystal grid. Crystal structure. Structure imperfections
4.	Thermal properties of materials
5.	Mechanical behavior of materials. Strain, stress and deflection diagram.

6. Mechanical behavior of materials. Mechanical testing.
7. Material surface properties
8. Metals and alloys. Phase diagrams
9. Dental alloys
10. Electrochemical behavior of alloys
11. Corrosion. Behavior of dental alloys in corrosion
12. Casting procedure in Dentistry
13. Welding procedure in Dentistry

6.8 BIOLOGY

1. The structure of macromolecules (DNA, RNA, Proteins, Saccharides) and bonds
2. Eukaryotic cell. Cellular organelles and their functions
3. Membranes and substance transport
4. Cytoskeleton, Endocytosis and Exocytosis
5. ATP and cellular energy production
6. Oxidative phosphorylation
7. Human genome, advancements and perspectives
8. DNA biological role and forms of chromatin
9. Replication
10. Transcription and translation.
11. The life cycles of cells and regulators
12. Oncogenes, anti-oncogenes and carcinogenesis. Cell division (Mitosis-Meiosis)
13. Molecular Biology techniques and applications (PCR, cloning, etc./ virus detection, genetic diseases, therapeutic cloning)

6.9 PHYSIOLOGY.

1. ESSENTIALS OF HUMAN PHYSIOLOGY. Principles of human body organization and function. Internal environment and Homeostasis. Cellular function systems. Movement through the cell membrane. Mitochondria structure and function. Apoptosis. Cell metabolism. Intercellular communication.
2. BLOOD. Blood cells. Hematocrit. Blood type. Rhesus system and transfusion. White cells: types of leukocytes. Body defense mechanisms – Basic principles of immunity. Allergy. Platelets. Blood clotting. Hemostasis. Fibrinolysis. Plasma: composition and function
3. CARDIOVASCULAR SYSTEM: HEART: Structural and Functional particulars. Excitation and contraction. Electrocardiogram. Cardiac cycle.

Cardiac output. Cardiac work. Acoustic phenomena – heart tones. Coronary circulation. Nervous and Hormonal control of the heart
4. PULMONARY AND SYSTEMIC CIRCULATION. Arteries – Veins. Arterial pulse. Arterial pressure. Capillaries function. Venous system. Nervous regulation of circulation. Lymphatic circulation. THERMOREGULATION: Homeothermia. Heat production mechanisms mechanisms of heat production and loss. Central body temperature regulation. Fever, Hyperthermia, Hypothermia
5. RESPIRATORY SYSTEM Elements of functional anatomy. The mechanics and work of breathing. Ventilation and blood perfusion. Respiratory volume and capacity. Regulation of the respiratory function. Respiration types
6. KIDNEYS – URINARY SYSTEM Kidney anatomy, histology of the nephron. Glomerular filtration. Reabsorption - Excretion. Urine concentration and dilution. Urine formation. Functions of the uriniferous tubule. Urination. ACID-BASE BALANCE
7. DIGESTIVE SYSTEM – Structure of the gastrointestinal tract. Salivary glands. Mastication - Swallowing. The stomach and its function. Function of the small and large intestines. Intestinal microbial flora. Gastrointestinal hormones. Emesis (vomiting). Pancreas. Liver. Bile. Digestion and secretions. Absorption
8. NUTRITION-METABOLISM. Regulation of food intake. Body composition. Energy consumption
9. NERVOUS SYSTEM Types of nerve cells. Synaptic transmission. Neural networks. Sensory receptors. Central – Peripheral nervous system. Autonomic nervous system.
10. Cerebral cortex - Memory. Electroencephalogram. Reflexes. Pyramidal – Extrapyramidal. Basal ganglia – cerebellum. Body senses. Pain. Special senses (sight, hearing, taste, smell).
11. MUSCULAR SYSTEM Είδη μυϊκών ιών. Νευρομυϊκή σύναψη. Μυϊκή συστολή. Τετανική συστολή. Μυϊκός κάματος. Μυϊκός τόνος. Μυϊκό έργο.
12. ENDOCRINE SYSTEM - HORMONES Hormones. Feed-back mechanism. Endocrine glands. Hypothalamus. Hypophysis (pituitary gland). Thyroid, parathyroid glands. Adrenal gland. Endocrine functions of the pancreas. Diabetes mellitus
13. MALE AND FEMALE REPRODUCTIVE SYSTEM – REPRODUCTIVE FUNCTION Reproductive hormones. Spermatogenesis. Female reproductive system. Sexual intercourse (coitus/copulation). Fertilization (conception)

6.10 INFORMATICS

1.	Examples & Practice in File/Folder Organization
2.	Communication of Applications with the Operating System
3.	Familiarization with Word Processing Software
4.	Word Processing - Fonts
5.	Word Processing - paragraphs, numbering
6.	Word Processing - Borders, Color, Background
7.	Word Processing - Tables
8.	Communication of Applications with the Operating System & Processing
9.	Calculations
10.	Simple Statistical Functions
11.	Logical Functions (IF)
12.	Absolute & Relative References
13.	Basic operations

6.11 REMOVABLE PROSTHODONTICS II

1.	Introduction -definition – classification
2.	Parts of a partial denture
3.	Clasps - types of clasps [Direct retainers]
4.	Indirect retainers
5.	Theory of partial denture design according to various classifications
6.	Cast analysis.
7.	Artificial teeth - types of teeth
8.	Laboratory procedures in fabricating a partial denture
9.	Construction of an investment die
10.	Waxing, investing, casting, finishing and polishing of the metal framework
11.	Base formation - Arrangement of artificial teeth
12.	Flasking – dewaxing – packing – curing -deflasking – polishing – finishing a partial denture
13.	Revision

6.12 DENTAL BIOMATERIALS II

1. Introduction to Biomaterials –course goals
2. Standardization of impression materials
3. Plaster
4. Standardization and properties of waxes
5. Chemical composition, coagulation mechanism and mechanical properties of investents
6. Element composition, physical and mechanical properties of dental porcelain
7. Metal ceramic bond
8. All-ceramic systems
9. Applications of synthetic resins in dental technology
10. Chemical composition and properties of synthetic resins
11. Welding systems of metals-polymers
12. Limitations to and clinical application of metal-polymer restorations
13. Laboratory hygiene

6.13 BIOCHEMISTRY

1. Introduction to Biochemistry (the role of water, chemical cell substrate, microelements, electrolytes)
2. Proteins-Peptides, properties, structure
3. Aminoacids, peptide bond, ampholytic character
4. Protein metabolism
5. Enzymes: study of the enzymatic activity, classification
6. Enzyme kinetics: suspension types, enzymes in clinical diagnosis
7. Carbohydrates: molecular structure, isomerism, properties, types of sugar
8. Carbohydrate metabolism
9. Biological oxidations
10. Lipids: properties, classification
11. Lipid metabolism
12. Hormones: chemical composition, properties, production, endocrine glands, mode of action
13. Vitamins: chemical composition, water-soluble, fat-soluble, properties

6.14 PHYSIOLOGY OF THE STOMATOGNATHIC SYSTEM – OCCLUSION

1. Introduction – Definition of SMG system. Description of the anatomic features of the SMG system - Functionality (in general)
2. Temporomandibular Joints – generally anatomical description of temporomandibular joints and muscular system of the SMG system
3. Nervous system- anatomy and function of the neuromuscular system, mandibular reflexes
4. Dentition-Teeth –Relationship of teeth to SGM function- Supportive tissues, periodontium and mucosa - pathology of the periodontium.
5. Mandibular positions: centric relation – centric occlusion - maximum intercuspation-rest position
6. Mandibular movements: border and functional movements– opening and closing -protrusion-laterotrusion- diagrams of mandibular movements
7. Main mandibular activities- mastication- masticatory forces – deglutition – stages of deglutition – speech
8. Occlusion: definition of occlusion – terminology – types of occlusion Occlusal interrelationships during functional movements of the mandible
9. Factors determining the morphology of occlusal surfaces α) in the horizontal plane, β) in the sagittal plane
10. Articulators – definition – description – types of articulators – face bow
11. Formation of occlusal surfaces in the anterior and posterior teeth – importance of the morphology of occlusal surfaces – Posterior and Anterior occlusal schemes. Techniques of occlusal surface constructions - PK Thomas technique –waxing.
12. Occlusion problems and the pathology of SGM system
13. Occlusal appliances – construction indications for occlusal splints – types of splints – techniques for constructing a splint

6.15 BIOMETRY – BIOSTATISTICS

1. Introductory concepts – Biostatistical research outline
2. Descriptive statistics-Introductory concepts
3. Data presentation methods (Tables – Graphs)
4. Measures used in Descriptive Statistics (Measures of central tendency, Measures of Position, Measures of Dispersion, Measures of Assymetry,

Skewness).
5. Normal values
6. Measurement of experimental error
7. Essentials of Calculus of Probabilities, Distributions
8. Introduction to Inferential Statistics
9. Point estimation and Confidence Intervals
10. Hypothesis Testing and quantitative variables
11. Hypothesis Testing and qualitative variables
12. Linear correlation and regression
13. Non- parametric tests

6.15 FIXED PROSTHODONTICS I

1. Introduction in Fixed Prosthodontics. Definition, aim, conditions. Types of Fixed Prosthesis, description, indications, applications. Report in the clinical stages. Laboratorial stages.
2. The cast. Definition, description of essential anatomic elements. Types of casts, materials, proportions. Impressions, materials, handlings, disinfection. Working casts with mobile dies.
3. Mobile stumps with pins. Methods of manufacture before the placement of plaster and afterwards the placement of plaster. Methods of dies manufacture with mobile stumps without pins. Segregation of stumps.
4. Mounting on the articulator. The cervical limit of preparation. Types of cervical limits of prepared teeth. Treatment of plaster stumps. Preparation of cervical limits of the stumps.
5. The wax pattern. Types of waxes, handlings. Types of inlays - onlays, applications. Stages of manufacture of wax pattern of inlays – onlays.
6. Full crown, description, applications. Manufacture of wax pattern, cap, occlusal surface, buccal, lingual and lateral surfaces. Occlusion.
7. Partial crowns, 3/4, 4/5, pins retention. Description, support-retention, applications. Laboratorial stages of manufacture. Crowns for support partial dentures. Manufacture of cast, cast root-canal pin with artificial crown.
8. Veneer crowns. Description, materials, applications. Manufacture of wax pattern of metal framework in anterior and posterior teeth teeth.
9. Sprue design. Definition, aim, materials. The form, the size, the number, the point of connection, the reservoirs. Air sprues. Auxiliary sprues. Choice and placement of sprues in inlays – onlays, full crowns, veneer crowns, partial

crowns etc. Faults in casting.
10. Investment materials. Types, properties, choice. Preparation of ring, preparation of wax pattern. Placement of wax pattern in the ring. Method of investment. Faults in casting.
11. Wax burned out, preheating. Casting machines, appliances, techniques. Faults in casting.
12. Preparation of casting, finishing and polishing.
13. Manufacture of resin veneer in full crown. Review.

6.17 PROSTHODONTICS AND AESTHETICS

1. Introduction to the course objectives.
2. Aesthetics through the ages, from the ancient times up to present.
3. Dental aesthetics.
4. Light. Theories on the the nature of light.
5. Basic properties of light I.
6. Basic properties of light II.
7. About colors.
8. Primary and composite colors.
9. Color identification systems.
10. Light and color in dental technology.
11. Visual behavior of natural teeth.
12. Visual properties of restorative materials.
13. Color perception. Considering tooth shape and volume.

6.18 ORTHODONTICS I

1. Introduction. Description of the field of Orthodontics. Aim of Orthodontics. Levels of orthodontic treatment.
2. Historical review. The science of Orthodontics through the ages.
3. Basic orthodontic devices, instruments and materials used in the construction of orthodontic appliances. Metallic materials such as orthodontic wires and orthodontic bands. Non metallic materials such as acrylic resins and preformed

thermoplastic plates used in orthodontics.
4. Basic principles of orthodontic appliances construction. Forming of orthodontic wires. Elaboration of orthodontic resin materials.
5. Construction of acrylic plates by using preformed thermoplastic plates and the Biostar digital device.
6. Welding and soldering of orthodontic wires. Technics. Flux and anti-flux materials used in soldering of orthodontic appliances. Solders.
7. Orthodontic springs. Description of a typical orthodontic spring. Basic principles of orthodontic springs construction. Types of orthodontic springs and their modifications. Application and function of orthodontic springs.
8. Orthodontic screws. Definition and types of orthodontic screws and their application in the construction of orthodontic appliances.
9. Growth of the craniofacial complex. Postembryonic growth of the body in general. The newborn craniofacial complex. Growth of the cranial and facial complex. Growth of the midface and of the rhino-maxillary complex. Growth of the lower jaw.
10. Orthodontic study casts. Construction and measurements based on study casts.
11. Orthodontic appliances in general. Parts and properties of orthodontic appliances. Classification of orthodontic appliances. Advantages and disadvantages of the removable and fixed orthodontic appliances. Patient's compliance.
12. Orthodontic malocclusions. Dental, skeletal and dentofacial abnormalities. Classification of orthodontic malocclusions.
13. Orthodontic clasps. Choice, design and construction of orthodontic clasps. Various types of orthodontic clasps and their modifications. Major and minor orthodontic clasps.

6.19 ORAL MICROBIOLOGY

1. Microbes – General concepts
2. Bacteria, Protozoa, Fungi
3. Viruses
4. Conditions for microbial growth
5. Normal oral flora
6. Oral cavity environment
7. Host-Microbe relationship, the distribution of normal oral flora
8. Biomembranes, dental plaque, calculus
9. Caries
10. Gingivitis, periodontitis

11. Sialadenitis
12. Mycosis
13. Review.

6.20 PROFESSIONAL ETHICS

1. Ethics – Morality – Ethical theories.
2. Types of ethical theories.
3. Anatomy of an ethical dilemma. Decision making methods.
4. The graduate's personality, determining factor of decisions taken and solutions proposed by him/her. Ethics – codes of ethics.
5. The Hippocratic Oath.
6. Medical Ethics.
7. Biomedical research.
8. Patient rights.
9. Dentist ethics.
10. Dental technician ethics.
11. Duties of dentists – dental technicians.
12. Cooperation between dentists and dental technicians.
13. Dentist- dental technician relationship and dentists' contribution to the training of dental technicians.

6.21 FIXED PROSTHODONTICS II

1. Introduction. Definition of bridge, aim. Consequences of the loss of teeth. Conditions. Clinical stages.
2. Laboratory stages, impressions with mobile stumps, mounting on the articulator. The preparation of cervical limits of the stumps.
3. The parts of the bridge. Supporting, definition, conditions, choice of supports. Retaining, definition, types of retainers, choice.
4. The pontic. Definition, conditions, designing. Types of pontics, applications.
5. The connector. Definition, types of connectors, types of bridges.
6. Designing a bridge of anterior teeth. Records.
7. Designing a bridge of posterior teeth. Records.
8. Types of bridges. Materials, choice, applications.
9. Sprue design, placement of wax pattern in the ring, wax burned out, preheating, casting. Finishing and polishing.
10. Telescopic bridge, definition. Study of insertion, parallelism. Manufacture of telescopic crowns and bridges.
11. Polymers. Manufacture of veneers in metal framework. Manufacture of aesthetic restorations without metal framework such as veneers, inlays, full crowns.
12. Soldering of metallic parts of the bridge. Applications, materials, methods.
13. Composites. Manufacture of veneers in metal framework. Manufacture of inlays. Review.

6.22 MANAGEMENT OF OCCLUSION AND DYSFUNCTIONAL DISORDERS OF STOMATOGNATHIC SYSTEM

1. Determinants of stomatognathic system function. Determinants of Occlusal Morphology. Mechanical Characteristics of Occlusion, Border and Functional Mandibular Movements.
2. Occlusion analysis - Anterior and Posterior occlusal schemes. Criteria for optimum functional occlusion. Classification of Occlusal Disorders.
3. Occlusion Analysis: Occlusal relationships in maximum intercuspal position (ICP) and during mandibular movements (lateral excursions & protrusive and retrusive movements).
4. Occlusion Analysis: Point Centric, Long Centric. Premature Contacts in Centric Occlusion. Occlusal interferences during lateral excursions and protrusion.
5. Management of occlusion: Occlusal adjustment and equilibration in natural dentition. Occlusal management and adjustment of tooth supported restorations. Restorative considerations in occlusal therapy. Occlusal management in osseointegrated fixture supported restorations.
6. Function and Dysfunction of Stomatognathic system: Criteria for optimum

function of stomatognathic system. Classification of Stomatognathic System Disorders. Restorative Implications of dental problems of Psychogenic Origin and Bruxism. Restorative Implications of Internal Derangement.
7. Restorative Management of Dysfunctional Problems of Stomatognathic System: Conformative and Reorganized techniques.
8. Articulators: Principles and Types of articulators and cast holders. Applications and Requirements of dental articulators
9. Articulators: Semi-Adjustable articulators. Hanau Articulator, Whip-mix Articulator. Use of semi- adjustable articulators. Fully-Adjustable Articulators (Pantographic, stereographic)
10. Occlusal appliances: Types and Uses.
11. Stabilization appliances, basic principles of splints construction.
12. Surgical and athletics splints construction.
13. Revision

6.23 ORTHODONTICS II

1. Adams orthodontic clasp. Anchorage principles. Advantages, construction and modifications of Adams orthodontic clasp.
2. Orthodontic clasp according to Schwarz. Principles, application and advantages of Schwartz orthodontic clasp. Triangular, ball-end retainer clasps and Jackson orthodontic clasp.
3. Hawley orthodontic appliance. Applications. Construction of the labial arch and of the acrylic plate of the appliance.
4. Modifications of the Hawley retainer concerning the labial bow, the acrylic plate, the various clasps and the embodiment of various active orthodontic attachments.
5. Orthodontic bite planes.
6. Labial and lingual orthodontic arches. Application and modifications.
7. Rapid Palatal Expansion orthodontic appliance. Principles of function, various types of the appliance and modifications.
8. Essix orthodontic splints. Orthodontic retainers.
9. Functional orthodontic appliances. Principles of function. Applications.
10. Activator functional appliance. Modifications.
11. Bionator functional appliance. Principles of function, various types of the appliance and their modifications.
12. Fränkel Functional Regulator. Principles of function, various types and

modifications.
13. Repairing procedures of orthodontic appliances.

ORAL AND LAB HYGIENE

1. Aims and targets of the lesson. Definition of the concepts (meanings) of Hygiene, Oral Hygiene and Laboratory Sanitation. Prejudice, social security and commitment.
2. Anatomy of the oral cavity, Bones, vessels, nerves, soft tissues. Structure of teeth. Configuration (frames) of barriers. Periodontium. Salivary glands.
3. Saliva; commendation – features. The role of saliva in maintaining the oral health. Bacteriostatic and bactericidal action of saliva. Buffering capacity, conservation of the oral Ph. The role of saliva in recalcification of enamel.
4. Dental Microbial Plaque. Diseases of teeth and gingiva. In which way does Dental Microbial Plate forms, when and where? Ways of disclosure of Dental Microbial Plaque, material and devices.
5. Dental calculus (Tartar); definition, how and where formed. Ways of removal (ablation) of tartar. Ways of removal of the Dental Microbial Plaque, processes and frequency of brushing.
6. Sugar and Dental Health; Ways in which sugar acts against dental health. Substitutes of sugar, diet. Caries; definition, causes, prejudice. Current views, fissures sealands.
7. Fluorine; The fluorine in nature, affinity between fluorine and caries. Controlled action of fluorine against caries. Toxic effects of fluorine. Impact of ions F in dissolution of Enamel, in the microorganisms of the dental plaque and in recalcification of enamel.
8. Periodontitis; definition, causes, stages. Chemical control of Dental Microbial Plaque. Current methods of oral health. Toothbrush, electrical toothbrushes, dental floss, mouthwash solutions.
9. Laboratory Sanitation. Infection diseases that could be transferred from the dental clinic to the laboratory.
10. Preventive Measures; Vaccination, gloves, masque, glasses, clothing.
11. Factors affecting laboratory sanitation; Natural (illumination, noise etc.), Biological (Infection diseases) and Chemicals.
12. Decontamination of; Laboratory, Reception, Working surfaces, Instruments, etc. Disinfection methods. Solutions.
13. Sterilization–Methods; Water vapor sub pressure, Dry heat, Radiation, Microwaves. Control sterilization.

6.25 FIRST AID

1. Introduction, the goals of first aid, first steps in first aid, patient evaluation, and evaluation and clothing removal.
2. Injury and bleeding.
3. Causes of mechanical injury, excoriation, fracture, wound, dislocation, sprains, skull fractures, facial fractures, spinal fractures, limb fractures,

accident fractures, beating, bites.
4. Foreign bodies. Foreign bodies in the skin, the eye, the nose, the ear-swallowing a foreign body.
5. Injuries from natural phenomena. Heat (burn, heatstroke), cold (chilblain, frostbites, hypothermia), sun, sunstroke, electricity, (electric shock, lightning stroke), radiation, drowning, choking.
6. Pathological cases in need of first aid. Pulse, pain (headache, toothache, earache, abdominal pain, fever, diarrhea – emesis (vomiting), faint - shock – loss of consciousness, coma, stroke, epilepsy – seizures, heart attack – angina pectoris, pathologic bleeding (rhinorrhagia or epistaxis, otorrhagia, gastrorrhagia, hemoptysis, varices – hemorrhoids).
7. Introduction to artificial respiration and cardiopulmonary resuscitation (CPR). Schaefer-Emerson method of artificial respiration, Schaefer method of artificial respiration, Silvester method of artificial respiration, Holger-Nielsen method of artificial respiration, mouth-to-mouth artificial respiration.
8. Bandages– bandaging, variety of bandages. Triangular bandages: bandaging the head, upper limbs, chest, hand, foot, jaw, knee, and elbow. Tubular (roller) bandages: bandaging the wrist and upper limb. Spica splint bandaging of elbow, upper limb, fingers, toes and foot. Bandaging the head and the eye. Net bandages. Splints.
9. Patient and injured transport. Transporting using a stretcher. Other methods of transport: by hands, on the shoulder, in a car.
10. Poisoning and antidotes. Signs and symptoms of poisoning. First aid in case of poisoning. Classification symptoms, medication and poison antidotes.
11. Injections.
12. The content of a First Aid medicine cabinet. Emergency tracheostomy.
13. Oxygen and its use. The philosophy of risk, protection, prohibition and rescue indicator signs. Food chemicals and additives.

6.26 PRINCIPLES OF BUSINESS ADMINISTRATION AND LAB ORGANIZATION

1. Principles of business organization. Nature and content of administration. Historical development and characteristics of economic units. Categories of enterprises and organizations. Inner and outer enterprise/organization operating environment, positive and negative impacts. Development of organizational thinking.
2. The concept of organization. The importance and operation of organizational divisions. Organization aims and goals. Economy scales. Exchanged cost. Systemic approach of organization.
3. Planning and decision making. Planning, mission-vision, strategy. Decision making, decision theory, obstacles to decision making, whole brain technology.
4. Organization effectiveness. Efficacy, efficiency, competitiveness, the McKinsey 7S Framework. Organizational structures and planning, organizational structure models. Size, life cycle, technology, environment and organizational structures.
5. Basic issues of organizational planning. Planning job postings, planning and control hierarchies and range, planning departments –departmentalization, authority relations, coordination, current trends in organizational structures, control.
6. Motivation. The concept of employee motivation, motivation theories. Encouragement. Emotional Intelligence.
7. Leadership. Concepts and nature, influence, forces of influence. Theories of leadership behaviour, modern thinking about leadership, leadership development, leadership development plan.
8. Team dynamics. Team size, member characteristics, cohesion, procedures and rules, culture, confidence, roles of team members, team development stages, organizational conflicts. Organizational culture. Change management.
9. Communication. The concept of communication. Communication and effectiveness, communication process, basic communication barriers, communication improvement, basic interpersonal communication attitudes.
10. Trends in business administrations. The appearance of new technologies, globalization, new forms of employment, the new economic environment, the new social environment, facing the new challenges.
11. Knowledge organization-management. Steps in rational management of knowledge. Customer Relationship Management (CRM).
12. Total Quality Management (TQM). Replanning of business processes. Comparative assessment. International Management-foreign market entry strategies.
13. Review of the basic concepts and preparation for the final examination.

6.27 DENTAL CERAMICS I

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| 1. Introduction – Historical Overview. |
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2. Materials of dental metalceramic prostheses: a) metals and alloys b) porcelain.
3. Light transmission through dental porcelain.
4. The metal-ceramic bond.
5. Metal framework designing.
6. Metal framework fabrication.
7. Packing and baking of the ceramic material.
8. Occlusion.
9. Aesthetics.
10. Metal-ceramic restoration with ceramic cervical.
11. Porcelain fused to titanium.
12. Galvanoceramics.
13. Review

6.28 MAXILLOFACIAL PROSTHETICS

1. Introduction. Historical overview. Epidemiology.
2. Impacts of maxillofacial deficiencies. Maxillofacial prosthetics. Materials, devices, armamentarium.
3. Intraoral defects, classification.
4. Construction of a palatal obturator for edentulous maxilla (preliminary cast, custom tray, working cast, record base, wax rim, artificial tooth set up, curing, finishing and polishing) Conventional obturator, open-hollow obturator, closed-hollow obturator.
5. Palatal obturator for the dentate patient.
6. Pharyngeal obturator. Treating congenital abnormality deficiencies.
7. Restoration of the mandibulectomy patient.
8. Extraoral prosthesis. Auricular restoration.
9. Extraoral prosthesis. Orbital restoration.
10. Extraoral prosthesis. Nasal restoration.
11. Retention techniques for extraoral maxillofacial prostheses. Prostheses survival expectancy.
12. Color, stains and coloration.
13. Review

6.29 IMPLANT PROSTHODONTICS

1. Historical overview. Introduction to implantology.

2.	Subject of implant prosthodontics. Students grouping and assignation for review projects.
3.	Terminology. Osseointegration. Survival rate of implant restorations.
4.	Biomechanics in implant prostheses. Occlusion in implant prostheses.
5.	Treatment planning, diagnostic wax-up, radiographical and surgical stent.
6.	Fixed implant prosthesis. Screw retained. The “hybrid” bridge.
7.	Fixed implant prosthesis. Screw retained. The metalceramic bridge.
8.	Fixed implant prosthesis. Cement retained.
9.	Removable prosthesis. Overdenture on ball attachments.
10.	Removable prosthesis. Bar retained overdenture.
11.	Removable prosthesis. Overdenture on magnets. Reinforcements of implant retained overdentures.
12.	Presentation of educational DVDs and the students’ projects.
13.	Presentation of educational DVDs and the students’ projects.

6.30 METHODOLOGY – RESEARCH

1.	Acquaintance with research methodology. Brief description of the steps of research process.
2.	Science and research. Creating questions. Knowledge acquisition methods. The contribution of Ancient Greeks. Research models.
3.	Starting and selecting the topic. The initial hypothesis or stating the question. The relevant field of study. Keywords describing the topic. Writing the title.
4.	Method selection and research approach to the problem. Research classification. Consulting bibliography. Defining research parameters. Searching in libraries and on line. Bibliography archiving.
5.	Research organization. Time organization. Pilot study. Signing the research contract. The use of Software and Hardware. The research protocol. Archiving in research. Data collection and analysis. Databases. Tables and diagrams. Review of statistical terms.
6.	Statistical evaluation of results. Use of statistical software. Examples of statistical evaluation of data with the use of software such as SPSS and Origin.
7.	Presentation of results. Dissertation writing. Writing a paper for a scientific journal. Conference papers or posters
8.	Special Part. Research in Dental Technology. Research methods in dental materials and prosthetic works. Study of mechanical properties of dental materials. Methodology, specifications, scientific instruments. Presentation of relative researches.
9.	Introduction to stress and strain in dental prostheses. Photoelasticity. Principles and methods. Two dimensional and three dimensional photoelasticity. Presentation of relative researches.

10. Strain gauges. Principles and methods. Presentation of relative researches.
11. Brittle veneering materials and the method of the finite element. Principles and methods. Presentation of relative researches.
12. Fatigue in dental materials. Fatigue of dental prostheses. Fatigue measurements. Presentation of relative researches.
13. Study methods of other besides mechanical material properties. Presentation of relative researches.

6.31 ENTREPRENEURSHIP

6.32 PRINCIPLES OF HEALTH SERVICES ORGANIZATION AND ADMINISTRATION

1. Conceptual approaches – clarification of the concept of health
2. Conceptual clarification of the term ‘organization’
3. Basic principles of healthcare services organization and management.
4. Systemic organization of healthcare services.
5. Organizational structure of services.
6. Organization of healthcare services at national level.
7. Organization of healthcare services at regional level.
8. Organization of healthcare services at prefecture level.
9. Primary healthcare and primary care.
10. Hospital care.
11. Problems and weaknesses in the organization of healthcare services.
12. Relationship of healthcare services to social security.
13. Review.

6.33 DENTAL CERAMICS II

1. Introduction – Historical overview.
2. Aesthetics: the reason for manufacturing all-ceramic restorations.
3. Light transmission through hard dental tissues.
4. The dental porcelain. Chemistry, physics, mechanical properties.
5. Light transmission through all-ceramic restorations
6. The Jacket crown.
7. The all-ceramics reinforcement techniques.
8. Pressurable ceramics. Colorization with stains.
9. Pressurable ceramics. Colorization by layering technique.
10. All-ceramic preparation for bonding procedure. Etching, adhesives.
11. CAD – CAM systems.
12. Metal-ceramic versus all-ceramic restorations.
13. Review

6.34 REMOVABLE PROSTHODONTICS III

1. Soft liners: Aim and use. Types and properties of soft liners. Application methods.
2. Duplication of complete dentures and copy denture techniques.
3. Overdentures. Description. Advantages and disadvantages. Designing of metal copings for the selected abutment teeth
4. Selection of the appropriate precision attachment for the overdenture. Indications for a stud attachment. Indications for bar attachment.
5. Construction of impression trays according to the selected impression technique. Construction of work casts and transfer of metal copings on them. Construction of base plates and occlusion rims.
6. Mounting on the articulator. Arrangement of artificial teeth. Construction of recording keys using laboratory silicone.
7. Placement of selected precision attachments and conjunction with fixed prostheses. Principals of selecting and positioning precision attachments. Presentation of several cases
8. Designing of the overdenture base. Types of bases. Basic rules of designing overdentures bases. Presentation of several cases. Construction of the casting metal framework for reinforcement. Presentation of several cases.
9. Laboratory procedure of constructing metal frameworks. The Technique of constructing casting lingual surfaces on the frameworks.
10. Presentation of several cases of overdentures according to Jamper. Laboratory procedure of constructing telescopic overdenture.
11. Overdenture with bar attachment, laboratory procedure of construction, according to Jamper. Overdenture with stud attachments. Requirements of applying stud attachments. Resilient and non resilient attachments, principals of application.
12. Introduction to the reinforcement of acrylic complete dentures. Review of the bibliography related to the reinforcement. Chemical modification of PMMA, insertion of metallic wires.
13. Reinforcement using fibers. Incorporation of carbon fibers, glass fibers, Kevlar fibers and polyethylenium fibers. Full and partial base reinforcement. The use of nets and roving.
14. Factors with affect the strength of reinforced denture bases. Laboratory procedure of reinforcing a complete denture by incorporating polyethylenium nets according to Chow methodology.

6.35 COMBINED PROSTHODONTICS – PRECISION ATTACHMENTS

1. Introduction to the precision attachments. Definition. The use of attachments in prosthodontics. Description. Resilient and non resilient connection of removable prosthesis on to the fixed one. Classification of attachments. Advantages and disadvantages, indications and contraindications.
2. The parallilograph – milling unit. Description of its parts. Basic principles of operation. Several kinds of burs for milling (Wax burs, burs for cutting metal, polishing burs. Recording the path of insertion and reestablishment of the path. Other useful equipments (hydrogen flame generator).
3. Analysis of the most known methods of conjuncting the basic part of attachment to the fixed prosthesis. Conjunction trough casting procedure, conjunction using metal welding procedures and conjunction through anaerobic glue. Advantages and disadvantages of the above mentioned methods.
4. Facing the problem of reciprocation with precision attachments. General outlooks and principals. The necessity of stabilizer. Precision attachments combined with the problem of bilaterally free end saddles. Measures for decreasing the moments developed on the abutment teeth. Intracoronal attachments. Description. General principals of operation. Presentation of the commercially available representative intracoronal attachments. Laboratory procedures of application.
5. Extracoronal attachments. Description. General principals of operation. Resilient and non resilient extracoronal attachments. Presentation of the commercially available representative extracoronal attachments. Laboratory procedures of application.
6. Bars. Presentation of the commercially available representative bar attachments. Auxiliary attachments. Presentation of the commercially available representative extracoronal attachments. Laboratory procedures of application
7. Stud attachments. Description. General principals of operation. Presentation of the commercially available representative intracoronal attachments. Laboratory procedures of application. Dental magnets. General principals of operation. Presentation of the commercially available representative intracoronal attachments. Laboratory procedures of application.
8. Telescopic prostheses. Types of telescopic prostheses. Methods of increasing the retentive force telescopic crowns. Designing and materials for the construction of telescopic crowns.. Primary and secondary splinting. Telescopic crowns, milling clasps, conical crowns. Description and techniques of application.
9. Combined telescopic prosthesis with primary and secondary crowns made by gold alloys and a frame made by Cr-Co alloy. Concise presentation of the laboratory steps. Determination of the path of insertion.
10. First diagnostic wax up with replacement of missing teeth. Milling of the waxed primary crowns. Formation of the lingual shoulder and proximal channels. Placement of sprues, casting of primary crowns.
11. Construction of base plates, mounting of final casts on the articulator, reestablishment of the path of insertion. Positioning of primary crowns on the

<p>milling unit by embedding them in a plaster base. Milling of the metallic primary crowns, grinding and final polishing on the milling unit. Mounting of the final casts on the articulator.</p>
<p>12. Modeling of secondary crowns. Second diagnostic wax up. Construction silicon key for recording the position of artificial teeth. Modeling of secondary crowns.</p>
<p>13. Spruing, casting polishing of secondary crowns. Fitting of secondary crowns on the primary. Designing and construction of metal frame of the removable partial denture. Soldering of secondary crowns on the metal frame. Presentation of method for constructing a combined telescopic prosthesis where the primary and secondary crowns as well as metal frame are made by Cr-Co alloy.</p>

6.36 ENGLISH FOR DENTAL TECHNOLOGY

<p>1. Introduction. Basic terminology on tooth identification. Principal differences between deciduous and permanent teeth. Dental materials, gypsum products, investments, synthetic resins.</p>
<p>2. Acrylic resins - Waxes – Abrasive and polishing agents. Impression materials. Reversible-irreversible hydrocolloids.</p>
<p>3. Dental casting alloys. Properties. Dental porcelain. Revision and consolidation exercises.</p>
<p>4. Dental anatomy: Description of maxillary central incisor and first molar. Landmarks of the edentulous arches.</p>
<p>5. Occlusion rim fabrication. Armamentarium-procedure.</p>
<p>6. Packing the complete dentures. Armamentarium-procedure.</p>
<p>7. Build-up technique for the acrylic resin veneer crown. Armamentarium-procedure. Spruing, investing and casting the wax pattern.</p>
<p>8. Polishing. Armamentarium-procedure. Porcelain fused to metal restoration. Framework design. Revision and consolidation exercises.</p>
<p>9. Porcelain application (for single crowns and fixed partial dentures). Armamentarium-procedure.</p>
<p>10. Precision attachments and their use. Advantages and disadvantages.</p>
<p>11. Functional requirements of a removable partial denture. Undercuts, surveying.</p>
<p>12. Preformed stainless steel clasps for orthodontic appliances. Repairs, armamentarium-procedure.</p>

13. Business letter writing. Revision and consolidation exercises.
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6.37 SOCIOLOGY OF HEALTH

1. Introduction: changing domains of the Sociology of Health and illness (Biomedical model versus Sociology of Health).
2. Social formation of medical knowledge (Social Formation of the body – criticism and Metamodernism).
5. Population beliefs about Health: Health, Modus Vivendi and Consumer Cultural Models.
4. Risks in modern society: high risk groups and behaviours – the case of AIDS.
6. The role of the patient: the individual, the identity and illness.
6. Chronic illness and disability – Stigma – Coping strategies.
7. Sociology of the body – Feminism and new reproductive technologies.
8. Sociology of Interactions between “the Public and the Professionals” – The professional – patient relationship: norms – challenges – conflicts.
9. Gender – Healthcare Professionals and Ideology.
10. Social inequalities and Level of Health.
11. Late Modernity and the changing social relations of Healthcare sciences – The sociology of Healthcare professions (what constitutes a profession – social gender and strategies of social protection and labour control).
12. Sociological Analyses of Contemporary Developments in UK Health Policy: a new Healthcare Model – formulating the concepts of Health Promotion and New Public Health.
13. Review of the all the above units

6.38 PRINCIPLES OF MARKETING

1. The science of Marketing and its importance for decision making in Strategics planning.
2. Marketing, in general, and its role in Businesses/Organizations.
3. The special sphere of Marketing activities.
4. Content and Marketing criticism.
5. Economic and social environment of Marketing, in general.
6. Information system and Marketing research (in general).
7. Labour market size and boundaries in various Marketing activities.
8. Market segmentation.
9. Factors affecting product/service Pricing and Promotion in local, domestic, international and global markets.

10. Consumer marketing and consumer behaviour (in general).
11. Organization buying behaviour (in general).
12. Greek enterprises and Marketing.
13. Review of the main points and preparation for the final exams.

14.2 Statutes of the post-graduate program

STATUTES OF THE JOINT POST-GRADUATE PROGRAM OF THE DENTAL SCHOOL OF THE NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS AND THE DEPARTMENT OF DENTAL TECHNOLOGY OF THE TECHNOLOGICAL EDUCATIONAL INSTITUTION OF ATHENS

(After the correction by Ministerial Decision, National Government Gazette 1352/B'/14-9-06)

CANDIDATE CATEGORIES

To be admitted as a regular post-graduate student, an applicant must have earned a bachelor's degree or its equivalent from a college, university, or technical school of acceptable standing as follows:

- c) Graduates of Dental Departments of Greek Universities or of equivalent and accredited foreign universities
- d) Graduates of the Department of Dental Technology of the Technological Educational Institution of Athens
- e) Graduates of other Greek or equivalent and accredited tertiary education Departments of related disciplines

DOCUMENTS TO BE SUBMITTED

Every year, the Dental School of the University of Athens, in cooperation with the Department of Dental Technology of the TEI of Athens publishes a notice calling for candidate students for the Postgraduate Program, according to the existing provisions. The graduates of the Department of Dental Technology of the TEI of Athens constitute at least 50% of the total students to attend the Program.

The Interdisciplinary Coordinating Committee (I.C.C.) decides on the number of students to attend the Program each year as well as the time the notice is published in Press during the semester before the beginning of the new course. The relative announcement to candidates includes:

- α) admission requirements for the PGP "Dental Technology Materials"
- β) document submission deadlines
- γ) candidate assessment and
- δ) address for document submission

The required documents are either directly submitted or sent by registered mail to the Secretariat of PGP within the time limit determined in the notice.

The documents to be submitted by the candidates are:

1. Printed and electronic application (word file)
2. Certified copy of degree certificates
3. Transcripts or other confirmation of dates of study, awards achieved, exams undertaken etc.
4. Curriculum Vitae
5. Document proof of work experience (if any).
6. Foreign language certificates
7. Scientific publications, distinctions (if any).
8. Extra qualifications (specialization seminars, courses in foreign Universities, studies, postgraduate degrees, other certificates, etc.).

ADMISSION

1. Candidates take exams in the following subjects of the graduate program of the Dental Technology Department:

- a) Technology of Materials, b) Research Methodology and c) English for Dental Technology.

The teaching staff members responsible for the corresponding subjects taught in the Dental School, in cooperation with the teaching staff of the corresponding subjects taught in the Dental Technology Department decide on the examinations syllabus, and the evaluation of written papers.

2. Admission to the PGP additional criteria taken into consideration:

- The cumulative grade point average
- Grades achieved in subjects of the undergraduate program, related to PGP
- Dissertation performance, if required at undergraduate level
- Research experience (if any)
- Scientific publications and papers presented at Conferences
- Computer skills
- Results of written examinations in the above mentioned subjects at undergraduate level
- Sufficient knowledge of the English language and terminology. Knowledge of any other foreign languages (French, German, Italian) will be taken into consideration
- Foreign graduates must have sufficient knowledge of the Greek language proven by either a graduate or a postgraduate diploma from a Greek university or by Certification from the Centre for the Greek Language
- Interview
- Scholarships (if any)

The assessment of candidates, who have submitted their documents within the prescribed period, is carried out in three phases:

Phase A:

Control of all submitted documents. Drawing up of a list.

Phase B:

Conduct of Examinations by Interdisciplinary Coordinating Committee (I.C.C) and candidate assessment according to the above mentioned qualifications.

Phase C:

Candidate interview by two (2) I.C.C members, one from the University teaching staff and one from the TEI teaching staff.

Upon completion of Phase C, a list of the final candidate assessment and the selection of the first three successful candidates is drawn up.

Successful candidates must, by registered mail and within fifteen(15) days, state if they accept or not to attend the PGP, according to its rules and regulations.

No response by a successful candidate, within the prescribed period, is taken as denial of acceptance.

LOCATION - TEACHING

Classes of the PGP «Dental Technology Materials» take place in both the Dental School and the Dental Technology Department campus during hours and days determined by the I.C.C.

The teaching staff is members of the University and the TEI teaching staff and is appointed by the I.C.C.

The I.C.C. can enter into new arrangements with domestic and foreign educational and research institutions, with the teaching staff of other Universities and TEIs, as well as with domestic and foreign Scientific Experts, aiming at the diffusion of new scientific methods and advancement of knowledge.

STUDIES PROGRAM

Student workload is 525 hours of theory classes and 75 hours of Practice Work in the 4th semester, with a corresponding total of 60 ECTS.

Total teaching hours per semester: 150

Total ECTS per semester: 15

1. Class attendance and assignments are compulsory.
2. In case of serious and verified reason of absence from classes, absences can be justified, provided they do not exceed the 1/5 of the total semester taught hours.
3. In case absences exceed the allowed limit, the student must repeat the same semester during the next academic year.
4. Assignment assessment grading employs a scale from 0 to 10. Students have successfully passed only if they have been marked with grade 6 (six) and above.
5. Upon completion of the the 4th semester, students have to prepare a dissertation of at least fifty pages.

Each semester ends with an examinations period.

Students are allowed to attend the next semester without having sat the examinations of the previous one, as they can sit the examination of each subject whenever they wish. Yet, in case of failure or not having sat an exam, they have the right to resit the exam only according to the corresponding to the subject semester schedule. In any case, in order to graduate, students must have successfully passed all exams.

6. Every postgraduate student has his/her supervisor whose role is to advise him/her on each part of his/her project – research proposal, literature search, methodology, data collection, data analysis and writing the dissertation. The I.C.C. approves of the dissertation topics proposed to them by the supervisors. The supervisor also proposes his/her grading of the dissertation to the I.C.C. A supervisor cannot supervise more than three students.

7. Dissertation presentation and defense takes place in front of an open audience in the Dental School of the University of Athens during the semester. Students are obliged to be present during a dissertation defense, which lasts one academic hour.

8. For the final grading of the student, the Grade Point Average of each semester is taken into consideration, i.e. written examination grades and dissertation grade.

9. Students who fail in written examinations or in Dissertation are allowed to take part in two (2) more exam periods of the corresponding subject semesters. In case they fail for a third time, they are unenrolled from the PGP.

In exceptional cases, the I.C.C., at its absolute discretion, can allow students to register as part-timers. In these cases, the Program must have been completed in, at most, eight (8) semesters. Part-timers and students, who fail their exams, are obliged to re-register for each additional semester, paying the corresponding tuition fees.

10. The maximum time a student can take to complete the PGP cannot exceed four (4) academic years.

Student Requirements

Postgraduate students are required to respect and obey the decisions taken by the I.C.C. of the PGP “Dental Technology Materials”.

PROGRAM COORDINATION- STAFF

For the coordination of the PGP a four-member Interdisciplinary Coordinating Committee (ICC) is formed, composed of: 1) the Head of the Dental Biomaterials Laboratory of the Dental School, 2) the PGP Scientific Responsible for the Dental Technology Biomaterials Laboratory of the Dental School, 3) the PGP Scientific Responsible for the Dental Technology Department of the TEI of Athens 4) a teaching staff member of the Dental Technology Department of the TEI of Athens.

The President of the ICC comes from the Dental School of the University of Athens, is appointed by ICC and in case of a tie his/her vote counts double.

ICC responsibilities:

a) responsible for candidate selection and for the final postgraduate students evaluation upon completion of the course, as anticipated by the Program.

- b) decides on issues related to the content of the program and the subject matters.
- c) appoints the teaching staff as well as the hours of each subject course.
- d) decides on issues brought up by the scientific responsible members of the Program.
- e) decides on any expenditure as anticipated by the Program.
- f) works out a solution to every issue or objection concerning the uninterrupted conduct of the PGP.
- g) decides on the written examination topics in accordance to the teaching staff's propositions.

Responsibilities of the scientific responsible members:

- 1) Monitor the implementation progress of the PGP, as anticipated by the decisions of the I.C.C.
- 2) Present and propose to the I.C.C. all issues that concern PGP.
- 3) Are in charge of every activity concerning the organization and coordination of both the teaching and administrative staff as well as financial issues.

The Scientific Responsible members from both Institutions, members of the I.C.C., can propose to the I.C.C. the undertaking of issues concerning the organization and coordination of the teaching and administrative staff as well as economical matters by the other part of the I.C.C. of the corresponding Department.

ADMINISTRATIVE SUPPORT OF THE JOINT POST-GRADUATE PROGRAM

The Secretariat is composed of permanent staff, who will be assisted by temporary administrative staff.

The following fall under its authorization:

- 1. Call for postgraduate candidature procedure
- 2. In receipt of candidature documentation
- 3. Registration, after completion of candidate selection
- 4. Listing of registered students in the program and courses
- 5. Personal student file recording and updating during studies
- 6. Preparation of the course program and timetable
- 7. Issue of study and other certificates by student application
- 8. Provide any required information
- 9. Degree award procedure. Deliverance of student files to the Sector in charge

The Secretary of the Dental School of the National and Kapodistrian University of Athens is appointed Secretary of the Joint Postgraduate Program.

The Secretary can transfer part of his/her responsibilities to the Head of the Secretariat of the Department of Dental Technology of the TEI of Athens, permanent administrative staff. In this case, she/he will be assisted by a permanent or temporary administrative staff member of the TEI of Athens.

Technical support of the Postgraduate Program in the TEI of Athens campus is provided by either an employee of the TEI of Athens or an off campus employee paid by the Postgraduate Program.

The Scientific responsible of the Biomaterials Laboratory will be assisted by a temporary employee, will belong to the Laboratory and will be paid by the Program.

TUITION FEES & COSTS

Candidature participation costs 100 euros. Tuition fees are 4500 euros per year for each student. Upon decision of the SIC and with the approval of the General Assembly of the Department, fee cost can be altered. The financial management of the PPS can be undertaken by the Special Account of TEI of Athens.

4.3 Curriculum vitae and recent scientific-research work of the educational staff of the department.

14.3.1 Stavros Yannikakis Professor

Surname: Yannikakis
 First name: Stavros
 Birth: May 28, 1965: Ierapetra, Greece
 Marital Status: Married, two children
 Nationality: Greek
 Work address: 6 Navarinou str 106 80, Athens, Greece
 Ag. Spyridonos, Egaleo, 12210, Athens
 Tel: 0030210-3600005, 0030210-5385617
 e-mail: yannista@teiath.gr

He graduated from the Dental School of the University of Athens in 1988. PhD in removable prosthodontics in 1998. He is practising dentistry in his private office since 1989. He had been a member of the scientific faculty of the Dental School of Athens as clinical associate of the removable prosthodontics department from 1990 to 2000. In particular, during 1995-1999 he participated in clinical and laboratory practice of postgraduate students. Since 2001 he is a member of the educational staff of the Dental Technology Department of the Technological Educational Institution of Athens. He has served as Head of the department and today he teaches as a professor. He has written books on complete dentures and implant prosthetics. He has also published more than 30 articles in Greek and international dental journals and has accomplished more than 100 presentations in Greek and international conferences. There are at least 100 citations on his research and he is member of 5 Dental and Research Associations.

Recent publications (five years)

1. Yannikakis S, Dimitropoulou E, Ioannidou F, Ioannides M: «Identification of ELF Magnetic Field as a Risk Issue in the Dental Laboratory». HAAMAH03, Rome 26-30 May 2003.
2. Yannikakis S, Dimitropoulou E, Ioannidou F, Ioannides M: Evaluation of acoustic noise emission by electric motors of bench engines. Proceedings of the Fourth IASTED International Conference on Power and Energy Systems. June 28-30, 2004, Rhodes, Greece
3. Δημητροπούλου Ε, Γιαννικάκης Στ: Η επίδραση ορισμένων παραμέτρων στη σκληρότητα χυτών από χρωμιοκοβαλτιούχα κράματα. Στοματολογία 2004;61:102-11
4. Γιαννικάκης Σ, Ζήσης Α: Προδιαγραφές κατασκευής στεφανών για την υποδοχή των συγκρατητικών στοιχείων μερικής οδοντοστοιχίας. Ελλ Στοματολ Χρονικά 2005;49:81-91
5. Γιαννικάκης Σ, Δημητρίου Αικ, Ζήσης Α: Ξηροστομία και Ολικές Οδοντοστοιχίες. Ελλ Στοματολ Χρονικά 2005;49:179-187.
6. Zissis A, Yannikakis S, Harrison A: Comparison of Denture Stomatitis prevalence in 2 population groups. Int J Prosthodont 2006;19:621-625
7. Zissis A, Yannikakis S, Polyzois G, Harrison A: A long term study on residual monomer release from denture materials. Eur J Prosthodont Rest Dent 2008;16:81-4
8. Yannikakis S, Zissis A, Harrison A: The prevalence of temporomandibular disorders among two different denture-wearing populations. Eur J Prosthodont Rest Dent 2009;17:35-40

9. Yannikakis S, Polychronakis N, Zissis A. Temperature rise during intraoral polymerization of self-cured hard denture base liners. Eur J Prosthodont Rest Dent 2010;18:84-88

14.3.2 Eugenia Dimitopoulou, Professor

Tel. 210 5385619, e-mail eudimitr@teiath.gr

Graduate of Dental Faculty of University Athens and PhD of same Faculty on the subject "Study of the influence of various factors in porosity of casts from Co-Cr alloy, with the method of non destructive testing".

She practised the Dental profession on 22 years in her private surgery.

She has taught the theoretical and laboratory courses "Removable Prosthodontics", "Fixed Prosthodontics" and "Dental Ceramics".

Today teaches the courses "Fixed Prosthodontics I and II" as well as "Dental Technology" of postgraduate program.

She is Head of Department and has been Sector Head of A' Sector of Fixed Prosthodontic and Associate Head of dep.

She is author and editor of science textbook titled, "the laboratorial procedure in Fixed Prosthodontic" which is distributed in the students.

She was scientific leader for the attendance of Department of Dental Technology in work "ESTIA-NET Opening Up Electrical Engineering, Computer Technologies and Applied Sciences to Successful Women Careers", in the frames of Socrates Erasmus 3 Thematic Network, in collaboration with the Faculty of Electricians, Mechanics and Computers Engineers of National Technological University of Athens, which was the general coordinator of 63 collaborating Greek and European institutions, participating in this program.

Also, she was the scientific leader of the sub-project "Reformation of Undergraduate Curriculum of Department of Dental Technology", in the frames of EUROPEAN TRAINING PROGRAM II.

She has nine publications and lectures in Greek and international scientific magazines and congresses.

She speaks French, English, Italian.

She is member of Hellenic Prosthodontic Society, of Greek Dentistry Society and founding member of Greek Society of Biomaterials Εταιρείας Βιοϋλικών.

Recent publications (five years)

1. Yannikakis S, Dimitropoulou E, Ioannidou F, Ioannides M: «Identification of ELF Magnetic Field as a Risk Issue in the Dental Laboratory». HAAMAHA03, Rome 26-30 May 2003.
2. Δημητροπούλου Ε, Γιαννικάκης Στ: «Επίδραση ορισμένων παραμέτρων στη σκληρότητα χυτών χρωμιοκοβαλτιούχων κραμάτων». ΣΤΟΜΑΤΟΛΟΓΙΑ 2004, 61-3, 102-111.
3. Ioannides M., Papadopoulos P., Dimitropoulou E : «Electric Field Prediction for a Human Body-Electric Machine System», International Journal of Occupational Safety and Ergonomics (JOSE)2004, Vol. 10, No 1, 87-100.
4. Yannikakis S, Dimitropoulou E, Ioannidou F, Ioannides M : «Evaluation of acoustic noise emission by electric motors of bench engines», Proceedings of the Fourth IASTED International Conference on Power and Energy Systems. Rhodes, June 28-30, 2004 p 615-619.

5. Yannikakis S, Dimitropoulou E, Ioannides M, Ioannidou F: «Consideration of the acoustic noise as a risk issue in the dental laboratory». 7th World Conference on Injury Prevention and Safety Promotion. Vienna June 6-9, 2004.
6. Σπυρόπουλος Κ., Παπαδοπούλου Χ., Δημητροπούλου Ε.: «Τεχνολογία και Τεχνικές στη χύτευση του Τιτανίου», ΣΤΟΜΑΤΟΛΟΓΙΑ 2005,62-2, 76-86.
7. Σεϊμένης Ι., Δημητροπούλου Ε., Παπαδόπουλος Τ.: «Συγκριτική μελέτη της αντοχής του δεσμού ρητίνης επικάλυψης, σε κράμα Ni – Cr, μετά από διαφορετικές επεξεργασίες σύνδεσης», Ελληνικά Στοματολογικά Χρονικά 2006, 50-1, 9-14.

14.3.3 Aristidis A. Galiatsatos, Assistant professor

Address: 60 Rogakou str. 15125 Athens-Greece
 Technological Educational Institution of Athens, Ag. Spyridonos, Egaleo, 12210, Athens
 Tel: +302106848640
 E-mail: agal@teiath.gr

Degree: Dr Galiatsatos attended the Aristotel University of Thessaloniki, school of Dentistry, Greece, where he received his degree in dentistry in 1988.

Postgraduate studies and titles:

1990-1991: Postgraduate course of Dental School of the University of Athens-Greece (duration 1 year).

1996: Doctorate degree in Department of Fixed Prosthodontics, Dental School, University of Athens, Greece. The title was: “Study of the bonding mechanism of resin to metal bonding systems on alloys that are used in fixed prosthodontics.

1988-1998: Fellow in Department of Fixed Prosthodontics, Dental School, University of Athens, Greece.

1998-1999: Instructor in Department of Fixed Prosthodontics, Dental School, University of Athens, Greece.

1999-2005: Fellow in Department of Fixed Prosthodontics, Dental School, University of Athens, Greece.

2003-2009: Fellow in Department of Dental Technology, Faculty of Health and Caring professions of Technological Educational Institution (T.E.I.) of Athens, Greece.

2009–present: Assistant Professor in Department of Dental Technology, Faculty of Health and Caring professions of Technological Educational Institution (T.E.I.) of Athens, Greece.

Occupation: Dr Galiatsatos maintains a private practice in Athens-Greece from 1988.

Publications: in national journals: 30

in international journals: 11

Presentations: in national congress: 55

in international congress: 12

Lectures in continuing education programs of dental societies: 20

Citation index: 20

Memberships:

1. Membership of FDI (Federation Dentaire Internationale).
2. Membership of Balkan Stomatological Society.
3. Membership of Society of Contemporary Dentistry.
4. Membership of Hellenic Prosthodontic Society.
5. Membership of Society of Hellenic Dentistry.

6. Membership of Stomatological Society of Greece.

Recent publications (five years)

1. Galiatsatos A.A. Bergou D. Six-year clinical evaluation of ceramic inlays and onlays. *Quintessence International* 2008,39(5), 407-412.
2. Galiatsatos A.A. An indirect repair technique for fractured metal-ceramic restorations. A clinical report. *J Prosthet Dent*, 2005, 93(4), 321-323.
3. Galiatsatos A.A. Overlay metal-ceramic crown for fractured restoration. *Dental Abstracts*, 2005, 50(6), 349-350.
4. Μερτζάνη Ν. Γαλιατσάτος Α.Α. Πελεκάνος Σ Σύγχρονες απόψεις για τη χρήση των προκατασκευασμένων ολοκεραμικών αξόνων ζirkονίου στην επανορθωτική οδοντιατρική. *Σύγχρονος Οδοντίατρος* 2005, 25(3), 135-146.
5. Γαλιατσάτος Α.Α. Εμβιομηχανική θεώρηση της αποκατάστασης ενδοδοντικά θεραπευμένων δοντιών με χυτούς ενδορριζικούς άξονες. *Σύγχρονος Οδοντίατρος* 2004,24(2), 87-100.
6. Μερτζάνη Ν., Γαλιατσάτος Α.Α. Κλινικοί παράγοντες που διέπουν την κατασκευή ενδοδοντικών αξόνων. *Νεογιλές Απόψεις* 2003,1, 20-23.
7. Γαλιατσάτος Α.Α. Μερτζάνη Ν. Η εφαρμογή των κεραμικών ενθέτων και επενθέτων στην αισθητική οδοντιατρική. Έχει γίνει δεκτή για δημοσίευση στο περιοδικό *Σύγχρονος Οδοντίατρος*.

14.3.4 Ourania Boulouchou, Assistant professor

I was born in Chalkis, Greece in 1962. After completing the high school education I received my dental training at the University of Athens Dental School – DDS (1986). Further studies led to successful completion of Doctoral Dissertation from the Friedrich – Alexander University Erlangen-Nuremberg (Grade magna cum laud 1989) and postgraduate qualification in Orthodontics and Dentofacial Orthopedics (1993). From October 1986 until March 1996 I have been working at the Friedrich – Alexander University Erlangen-Nuremberg as a member of the scientific staff of the Department of Orthodontics and Dentofacial Orthopedics on research and clinical practice including teaching in the field of Orthodontics. Since June 1996 I perform clinical work in my own orthodontic practice in Athens, Greece.

From March 2005 till present I am Assistant Professor in Orthodontics (tenured from 2008) at Technical Educational Institute (T.E.I.) Athens, Department of Dental Technology, responsible for research and teaching several courses in the field of Orthodontics including orthodontic biomaterials and management of dental practice, which are taught in the frame of two corresponding postgraduate programmes.

I am co-author of the scientific book “Kleines Lehrbuch der Angle-Klasse II,1 unter besonderer Berücksichtigung der Behandlung”, Quintessenz, Berlin, Rottach-Eggern, Chicago, London, Sao Paolo, Tokio, 1996.

I have also published referred journal scientific articles and in addition I have given lectures nationally and internationally.

I am also a Fellow in: Greek Orthodontic Society, Greek Association for Orthodontic Study and Research, Greek Stomatological Society, German Orthodontic Society, European Orthodontic Society and World Federation of Orthodontists.

14.3.5 Anthony Prombonas, Assistant Professor

Surname: Prombonas
 First name: Anthony
 Birth: December , 1960: Athens, Greece
 Marital Status: Married, two children
 Nationality: Greek
 Work address: Skiathou 40-42, Glyfada 16561, Athens, Greece
 Ag. Spyridonos, Egaleo, 12210, Athens
 Tel: 0030210-9634492, 0030210-5385647
 e-mail: aprob@teiath.gr

He graduated from the Dental School of the University of Athens in 1988. PhD in removable prosthodontics in 1997. He is practising dentistry in his private office since 1988. He had been a member of the scientific faculty of the Dental School of Athens as clinical associate of the removable prosthodontics department from 1991 to 1997. Between 1981 and 1994 he was a member of the educational staff of the Dental Technology Department of the Center of Higher Technological and Professional Education of Athens. Since 2000 until today is a member of the educational staff of the same department in the Technological and Educational Institute of Athens. Today he teaches as an Assistant Professor. He has written two books on complete dentures and one book on partial removable dentures. He has published 26 articles in Greek scientific dental journals and 7 articles in international scientific journals. He has accomplished 5 presentations in Greek and international conferences. There are 16 citations on his research.

Recent publications (five years)

1. Προμπονάς Α, Κατσαρός Ι, Κυπαρισσίδης Σ, Ζαβόλα Α, Σαλαμάρας Π, Παραλίκα Μ. Μελέτη της ενίσχυσης της θλιπτικής αντοχής της κοινής γύψου με προσθήκη πλαστικών ινών Οδοντοστομ Πρόοδος 2008
 2. Προμπονάς Α, Πούλης Ν. Ο ρόλος των μηχανικών ιδιοτήτων στη σωστή σχεδίαση των αγκίστρων των μερικών οδοντοστοιχιών από κράματα χρωμίου-κοβαλτίου. Οδοντοστομ Πρόοδος 2008
 3. Προμπονάς Α. Ανασκόπηση του προβλήματος της θραύσης και συγκόλλησης των μεταλλικών σκελετών των μερικών οδοντοστοιχιών. Οδοντοστομ Πρόοδος 2008
 4. Προμπονάς Α. Το πρόβλημα της μεταβολής της συγκρατητικής ικανότητας των συνδέσμων ακριβείας εξαιτίας της λειτουργικής χρήσης. Σύγκριση με τα χυτά άγκιστρα. Οδοντοστοματολογική Πρόοδος 2007, 61:108-124.
 5. Προμπονάς Α, Προμπονάς Ε. Η επιλεκτική τήξη με laser και η χρήση της στην κινητή προσθετική. Οδοντοστοματολογική Πρόοδος 2007, 61:389-399.
 6. Προμπονάς Α. Μελέτη των τάσεων που αναπτύσσονται από τα συγκρατητικά μέσα στα δόντια στηρίγματα και στις βάσεις των μερικών οδοντοστοιχιών. Σύγκριση μεταξύ αγκίστρων και συνδέσμων ακριβείας. Οδοντοστοματολογική Πρόοδος 2006, 60:370-387.
- Prombonas Α, Vlissidis D. Analysis of stresses in complete upper dentures with flat teeth at differing inclinations. Medical Engineering and Physics 2009, 31:314-319.
7. Prombonas Α, Vlissidis D. Comparison of the midline stress fields in maxillary and mandibular complete dentures: A pilot study. J. Prosth. Dent. 2006, 95:63-70.

PERSONAL DETAILS

Sex: Female *Date of Birth:* 26.7.1955 *Marital Status:* Married, one son *Nationality:* Greek

Office Address: Kosti Palama 13, Neo Psychiko, Athens 15451. Tel: (030210)6710313, e-mail: ptsolka@otenet.gr

TEI Address: Ag. Spiridonos, Aigaleo 12210, Athens. e-mail: ptsolka@teiath.gr

Qualifications: 1981 Diploma of Dental School (DipDS), University of Athens.
1990 Doctoral Thesis (DDS), University of Athens.

Languages: Greek, English.

POSTS HELD

1981 (Sept) -1983 (June): Honorary Clinical Assistant.

Department of Oral and Maxillofacial Surgery, Evangelismos Hospital, Athens, Greece.

A post in a very busy department in an Athens teaching Hospital providing wide experience in all kinds of maxillofacial operations and patients follow-up.

1983 (Nov) - 1988 (March): Honorary Clinical and Research Assistant.

Department of Stomatognathic Physiology, Division of Prosthetic Dentistry, Athens University Dental School, Greece, and Private Practice (General Dentistry), Athens.

A combined clinical and research University post. During these years I had been involved in:

- The management of patients with temporomandibular disorders using miscellaneous treatment modalities such as physical exercise, biofeedback, splints, occlusal adjustment and full mouth rehabilitation.
- The clinical training of dental students, includes teaching of the Whip-Mix articulator, splint construction and selective grinding.
- In research projects including my doctoral thesis studies.

1988 (April) - 1993 (Dec): Research Fellow & Honorary Clinical Assistant, Department of Prosthetic Dentistry, United Medical and Dental Schools, University of London, Guy's Hospital.

A post in a leading University Department with clinical and research activities. My research has focused on two main fields:

A. Assessment of the function & dysfunction of the craniomandibular system using the kinesiograph K6 and the electromyograph EM 2. B. Dental implants

In the Prosthetic Department of UMDS, Guys Hospital, I pursued further clinical experience in different fields of prosthodontics.

- Occlusion and TM disorders

In the treatment of the TM disorders, by using advanced computerised technology and employing novel therapeutic modalities.

- Prosthodontics & Implant Prosthodontics. In the field of Prosthodontics, I have worked in close collaboration with Mr Preiskel a renowned authority on attachments, overdentures and implant prosthodontics

1994 (March) - 1995 (Sept)

Honorary Clinical Assistant and Research Fellow, Department of Crown and Bridge, Division of Prosthetic Dentistry, Athens University, Dental School, Greece. Private Practice (General Dentistry and Prosthodontics), Athens.

Present appointment: Private Practice (General Dentistry and Prosthodontics), and from 5/2/2010 Assistant Professor, Physiology of Stomatognathic System and Occlusion, Division of Fixed Prosthodontics, Department of Dental Technology, Faculty of Health and Caring Professions, TEI

Doctoral Thesis: The relation of psychiatric disorders with the stomatognathic system dysfunction. Athens 1990.

A three - year research project at the Department of Psychiatry, NIMTS Hospital of Athens, in collaboration with the Department of the Stomatognathic Physiology, Division of Prosthodontics, Dental School, University of Athens.

Presentations in Dental Congresses: Three

Publications: International journals 12, Greek Journals 5.

Citation index : 70

Recent publications (five years)

1. Preiskel HW and Tsolka P: Cement and Screw Retained Prosthesis. An up to 10 year's follow-up of a new design. *Int J Oral & Maxillfac Implants* 2004; 14: 87-91.

2. Tsolka P and Katritsis D. Infective Endocarditis Prophylaxis for Dental Procedures in 2009: What has changed? *Hellenic J Cardiol* 2009; 50: 493-497.

14.3.7 Anna Zavola, Lab Instructor

ADDRESS: 9 -13 N Christofi Faliro Piraeus, 185 47

Telephone +30210-4815801

DATE OF BIRTH: February 22, 1957

PLACE OF BIRTH: Piraeus

MARITAL STATUS: Married mother of two children.

EDUCATION: 1975; Graduated from High School for Girls Piraeus, 1978; Diploma of Dental Technologist KATEE Athens, 1986; Bachelor Degree Dental School, University of Athens, 2000; Master of Science Degree Dental School, University of Athens in dental biomaterials.

PROFESSIONAL ACTIVITY: License to practice dental profession activated from 03.10.1986

PROFESSIONAL EDUCATIONAL EXPERIENCE: Teaching lab courses;

1. Dental morphology

2. Removable prosthodontics I (complete dentures)

3. Removable prosthodontics II (partial dentures)

4. Fixed prosthodontics (Bridges)

Teaching of theoretical subjects;

1. Oral Health (prevention, treatment, rehabilitation)

1979-1983 Worked as an hourly assistant at Dental Section of KATEE Athens.

1985 Appointed to the position of the temporary grade of assistant at Dental Section of KATEE Athens.

1987 Joined the grade of Lab Instructor (University Degree of Dentistry, professional experience, foreign language proficiency) in the Dental Technology department at the Technological Educational Institutions (T.E.I.)

2002 Evaluated with the Law N.2916 \ 2001 as the regular Lab Instructor.

EDUCATIONAL RESEARCH ACTIVITIES: Participated in B.CSF and C.CSF and I worked for programs COHEHRE ERASMUS TEMPUS and LEONARDO DA VINCI. I continue to hold the position of Lab Instructor at the department of Technological Educational Institutions (T.E.I.).

Recent publications (five years)

1. Προμπονάς Α, Κατσαρός Ι, Κυπαρισσίδης Σ, Ζαβόλα Α, Σαλαμάρας Π, Παραλίκια Μ. Μελέτη της ενίσχυσης της θλιπτικής αντοχής της κοινής γύψου με προσθήκη πλαστικών ινών Οδοντοστομ Πρόοδος 2008

14.3.8 Alexandra Ioannidou, Lab Instructor

ADRESSE: 38 Kalamakoiu Av, Alimos 17455
 Ag.Stryridonos Aigaleo 12210
 TELEPHONE:00302109849510
 00302105385632
 FAX:00302108986199
 Email:alexdent@otenet.gr

STUDIES

1990:Graduated from the School of Dentistry of Aristoteleion University of Thessaloniki (A.U.T.)

2007:Post graduated Studies “Master of Science” in Dental biomaterials from the Dental School of the National and Kapodistrian University of Athens

PROFESSIONAL EXPERIENCE

1991-today: Working as a general dentist in her private practice

1997-2007:Laboratory collaborator in the Removable Prosthodontics in the Department of Dental Technology of the Faculty of Health and Caring professions in the Technological Educational Institute of Athens (TEI)

2007-2009: Laboratory collaborator on a yearly renewable bases contract with the qualifications of professor on laboratory applications in the Removable Prosthodontics in the Department of Dental Technology of the Faculty of Health and Caring professions in the Technological Educational Institute of Athens (TEI).

2009: She was appointed to TEI of Athens as an ordinary professor on laboratory application with specification to the lab of complete dentures in the Removable Prosthodontics in the Department of Dental Technology of the Faculty of Health and Caring professions in the Technological Educational Institute of Athens.(appointment date12/11/09)

AUTHORING WORK

Thesis presented to the committee of the Dental School of Athens for the graduation of the Master of Science with the issue: “Study of the polymerization method and the thickness of a conventional acrylic resin on the development of porosity”

Participation in authorship of two chapters of the book «Professional lung diseases» Edition of the Hellenic Thoracic Society Athens 2007

MEMBER OF A SCIENTIFIC SOCIETY

Member of the Piraeus Dental Society (professional order)

Member of the Hellenic Biomaterials Society

14.3.9 Theodoros Balourdas, Lab Instructor

Family status: Married with two children

Education: 1977, graduated from K.A.T.E.E. (Center of higher technological education) with a certificate in Dental Technology.

1984, graduated from Dentistry School of the University of Athens.

1990, equalization of K.A.T.E.E. certificate of Dental Technology with a diploma of Dental Technology from T.E.I. (Technological Educational Institution) of Athens.

2000, Master of science in Dental Biomaterials from university of Athens.

Professional Experience: from 1977 to 1984 part time (trustee) in the school of Dental Technology of T.E.I. of Athens.

In 1984 he was assigned as permanent trustee of the above school ranked as Laboratory Instructor.

Since 2002 he is full Laboratory Instructor in School of Dental Technology.

Since 1985 he practices as Dental Surgeon in private practice.

Educational experience: Laboratory instructor mainly in removable prosthodontics.

Texts Writing:

1. Text book in Professional Deontology which is taught in the 7th semester.
2. Text book for Laboratory Procedures of Removable Partial Dentures.

14.3.10 Panagiotis Salamaras, Lab Instructor

ADDRESS: 95 Dionyssou srt, Maroussi, Athens, Greece

FAMILY SITUATION: Married with two [2] children

POSITION: Lab Instructor in the Department of Dental Technology, Faculty SEYP, Technological Institution of Athens

EDUCATION: Graduate of Dental Technician School of Athens [KATEE], in 1977. Graduate of Dental School of University of Athens in 1984.

Equalisation of degree KATEE with Technological Institute of Athens in 1989.

Acquisition of postgraduate title of specialization in Dental Biomaterials in 2000.

PROFESSIONAL ACTIVITY: From 1977-78 and from 1980 – 84 as paid hourly rates teacher branch 26, in Dental Technician School, faculty SEYP of Technological Institute of Athens. In 1984 was named as permanent to temporary rank.

In 1989 was included in the rank of Professor of Applications. Since 2003 in position regular Professor of Applications. At the same time from 1985 he practises the profession of dentist, maintaining private dentistry.

INSTRUCTIVE WORK: Laboratorial courses primarily in fixed prosthetic I.

Also from 2005, teaching of theoretical course “Aesthetic Colour and Characteristics.”

WRITING WORK: Writing notes for “AESTHETIC COLOUR AND CHARACTERISTICS.”

RESEARCH: Participation in research project, run by Assistant Professor A. Promponas, titled “Study of enhancing the compressive strength of common plaster, by adding plastic fibres.”

Recent publications (five years)

Προμπονάς Α, Κατσαρός Ι, Κυπαρρισίδης Σ, Ζαβόλα Α, Σαλαμάρας Π, Παραλίκα Μ. Μελέτη της ενίσχυσης της θλιπτικής αντοχής της κοινής γύψου, με προσθήκη πλαστικών ινών. Οδοντοστομ Πρόοδος 2008;2:35-39

14.3.11 Konstantinos Spyropoulos, Lab Instructor

Education: 1978, graduated from Dental Technology School of K.A.T.E.E. (Center of higher technological education) Athens.

1990, he gets the equalization of the certificate of the above school with a diploma of Dental Technology of T.E.I. (Technological Educational Institution) of Athens.

1984, graduated from Dentistry School of the University of Athens.

2001, graduated from University of Athens with a Master of science in Dental Biomaterials.

2006, graduated for University of Athens with a PHD in Dental Biomaterials.

Member of the following scientific societies:

Hellenic Dental Society

Dental Society of scientists in biomaterials

Educational experience:

1978 – 2010, Laboratory Instructor in the Department of Dental Technology of T.E.I. of Athens.

He taught the following laboratory lessons:

Dental morphology, Removable Partial Dentures, Removable Dentures, Crowns and Bridges, Dental Ceramics.

Work experience:

1987 – 1997, Private practice of Dentistry.

1978 – 2010, Lab Instructor in the Department of Dental Technology of T.E.I. of Athens.

Recent publications (five years)

1. Σπυρόπουλος Κ, Παπαδοπούλου Χ, Δημητροπούλου Ε: Τεχνολογία και τεχνικές στη χύτευση του τιτανίου. Στοματολογία 2005;62(2):76-86
2. Σπυρόπουλος Κ, Παπαδοπούλου Χ, Δημητροπούλου Ε: Εργαστηριακή προσέγγιση της κατασκευής των σκελετών των μερικών οδοντοστοιχιών από τιτάνιο. Οδοντοστοματολογική Πρόοδος 2006;60(2):221-229
3. Spyropoulos Κ, Papadopoulos Τ. Development of a ceramic coating for the production of Ti-castings. Journal of Dental Technology 2008;25(2):25-30
4. Papadopoulos Τ, Spyropoulos Κ: The effect of a ceramic coating on the cpTi porcelain bond strength. Dent Mater 2009;25:247-253

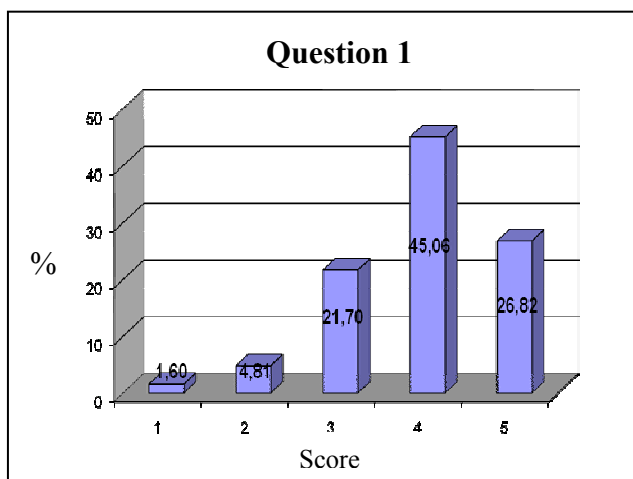
14.4 Evaluation graphs of the students' questionnaires on subject/teaching assessment

HQAA Criteria

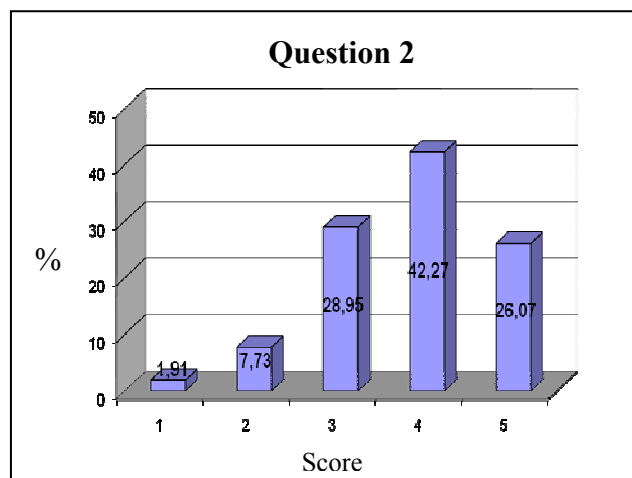
Very poor	Poor	Fair	Good	Very good
1	2	3	4	5
Unacceptable	Non-satisfactory	Moderate	Satisfactory	Very good

A. The course

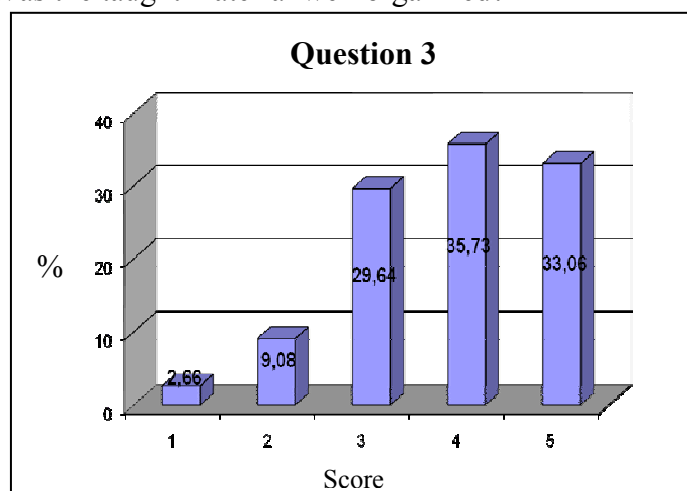
1. Were the course's goals clear?



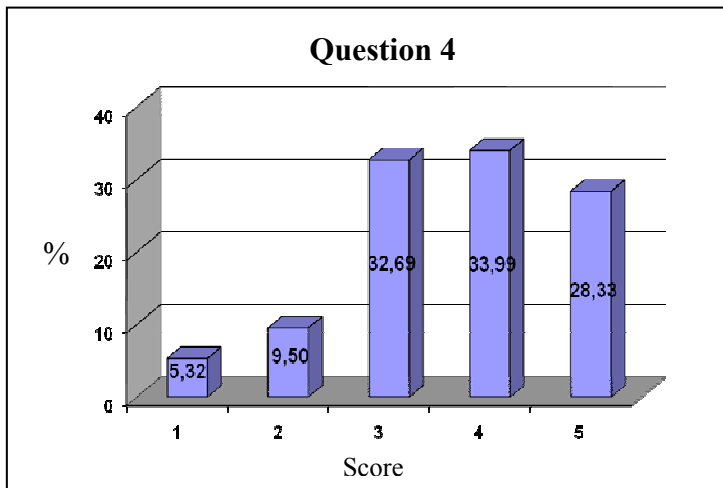
2. Has the taught material met the course's goals?



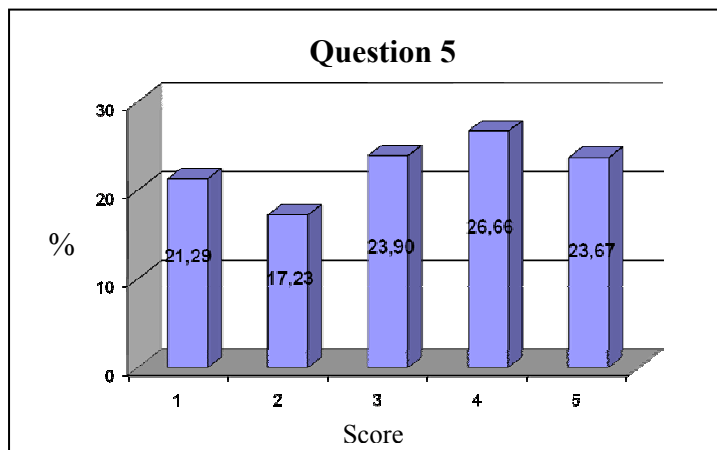
3. Was the taught material well organized?



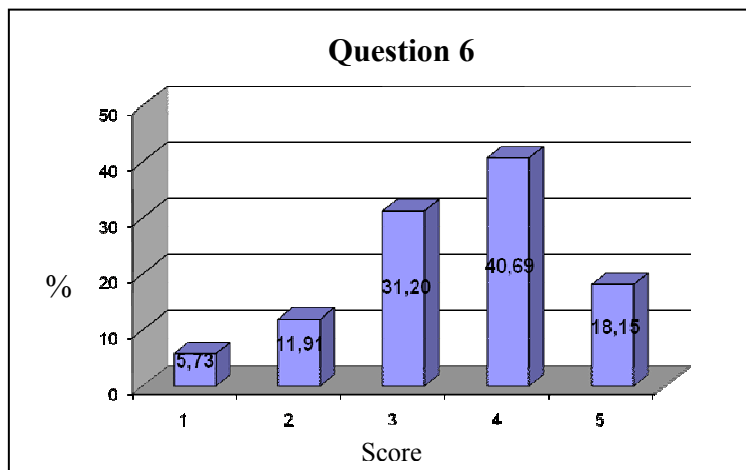
4. Did the educational material used contribute to a better understanding of the subject?



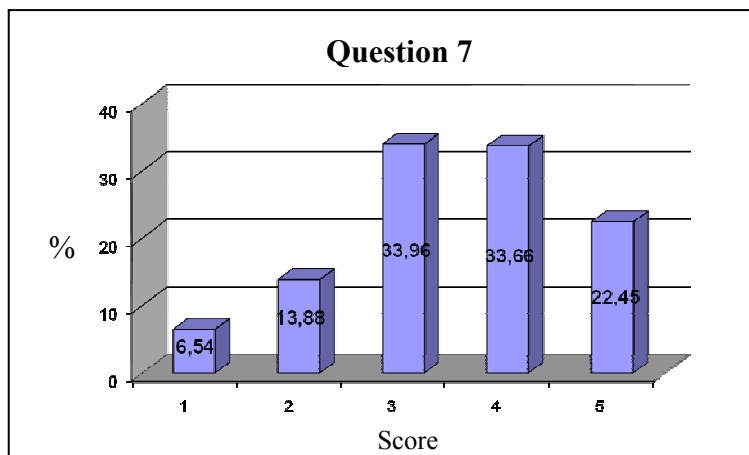
5. Were manuals, books, notes and additional bibliography provided in due course?



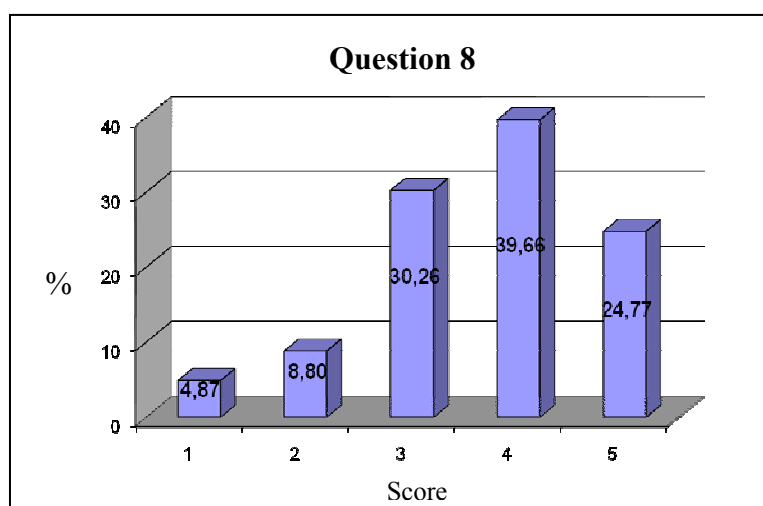
6. How satisfactory were the book(s) or notes?



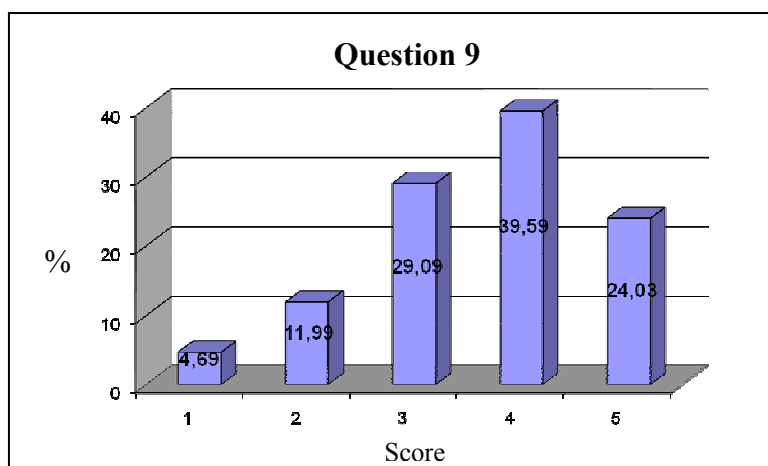
7. How easily available is bibliography in the Institution Library?



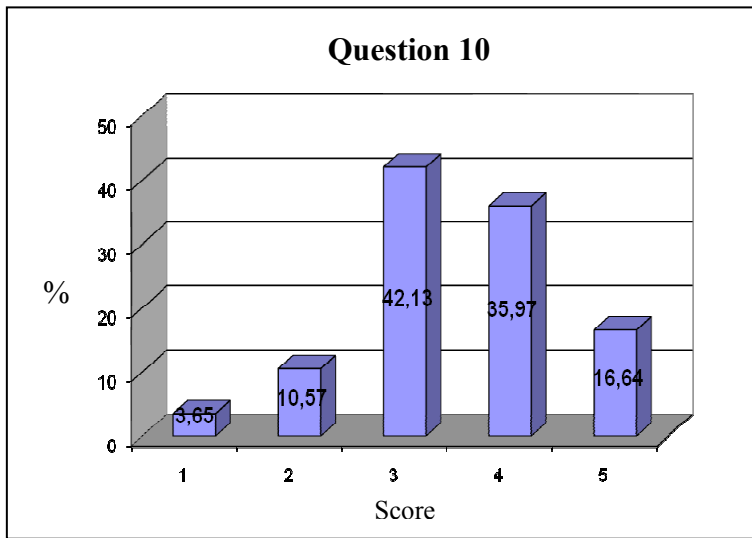
8. How necessary do you consider prerequisite subjects?



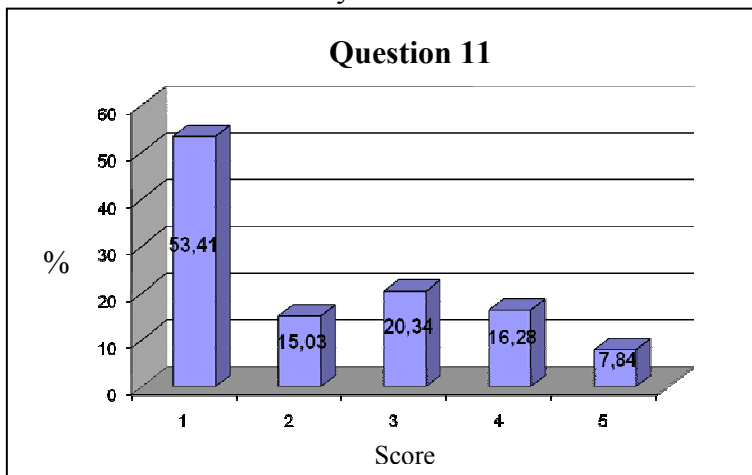
9. Use of knowledge from other subjects.



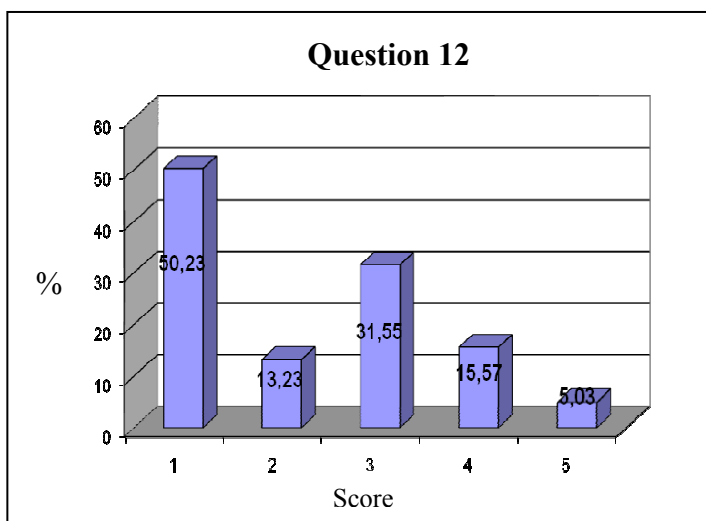
10. How do you assess the difficulty level of the subject in relation to the semester it is taught?



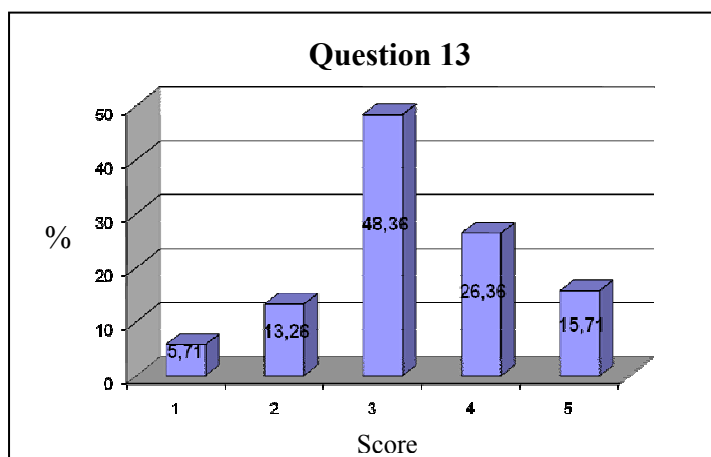
11. Usefulness of contributory courses.



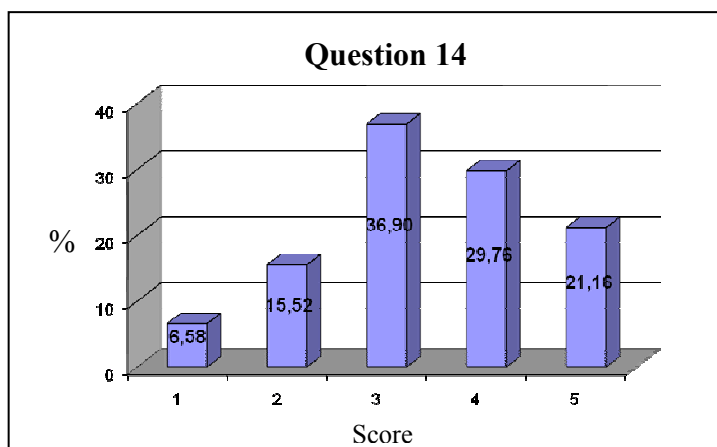
12. Quality assessment of contributory courses.



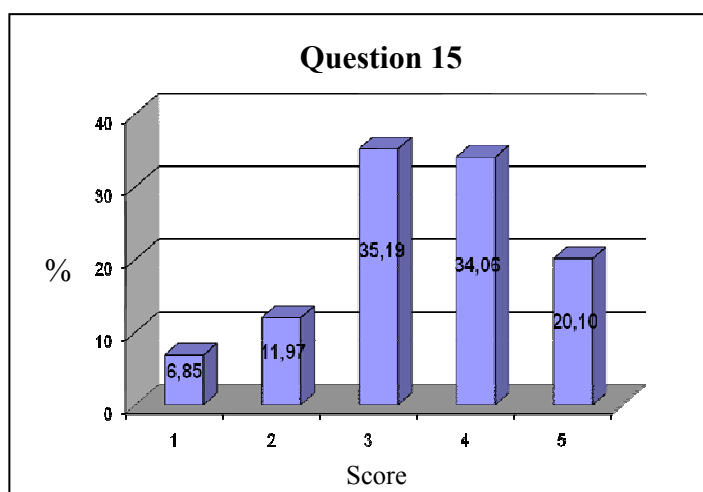
13. What is your opinion of the awarded ECTS in relation to the workload?



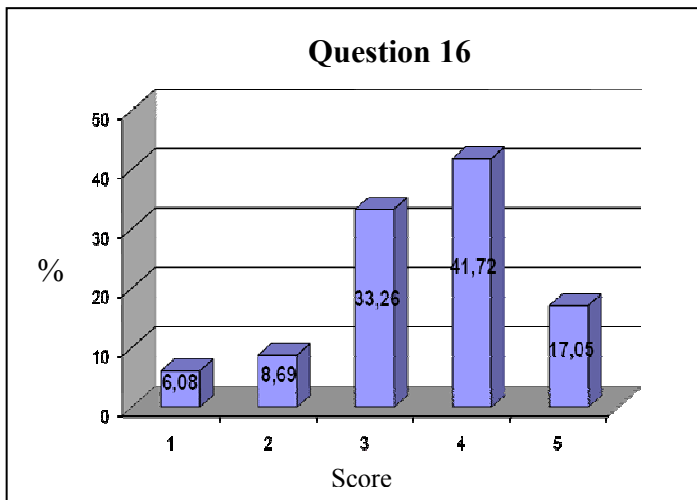
14. Transparency in marking criteria.



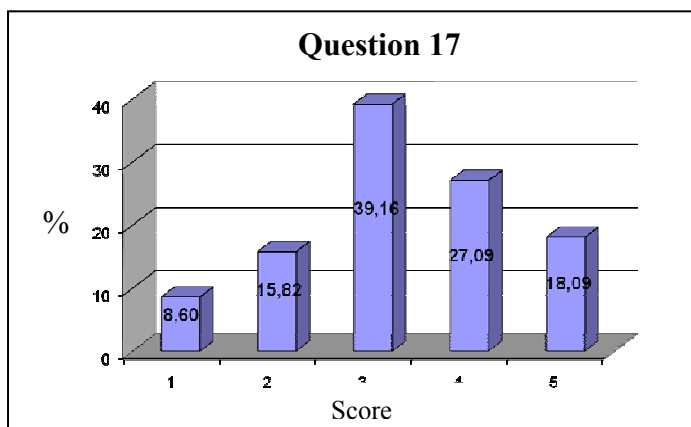
15. In the cases in which written or oral tasks were assigned was the topic given on time?



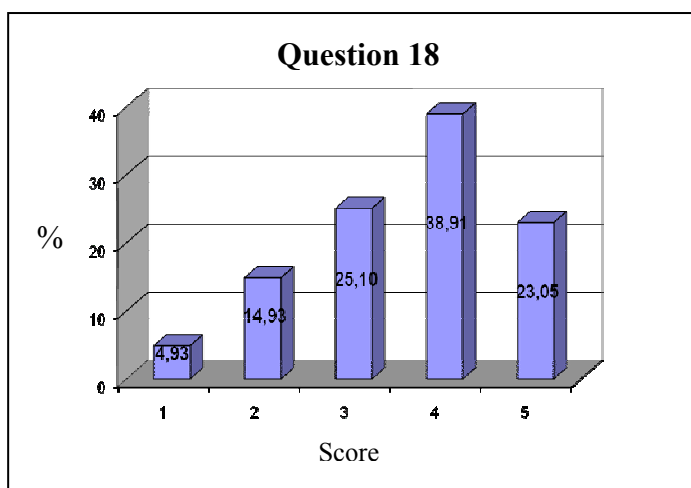
16. Was the deadline date for the submission or presentation of the assignments reasonable?



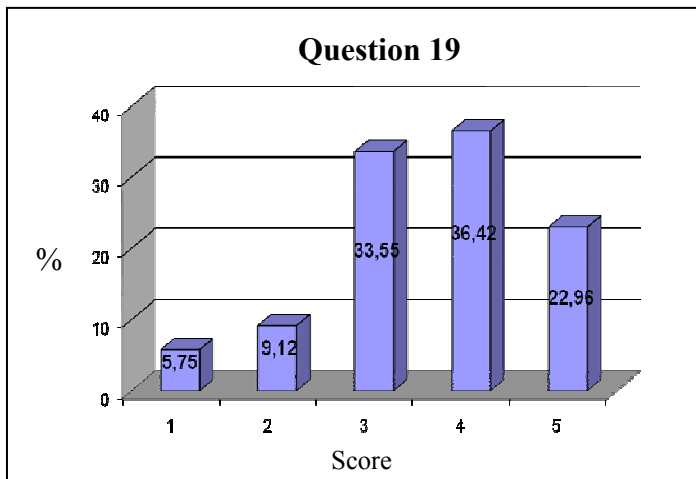
17. Was there relevant research material in the library?



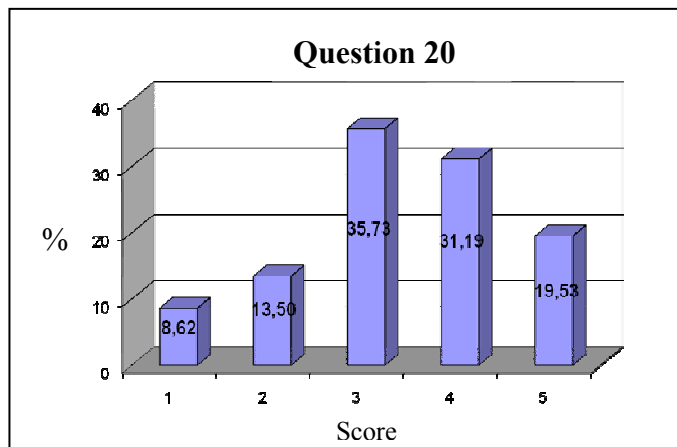
18. Was there support and instructional assistance by the supervising instructor?



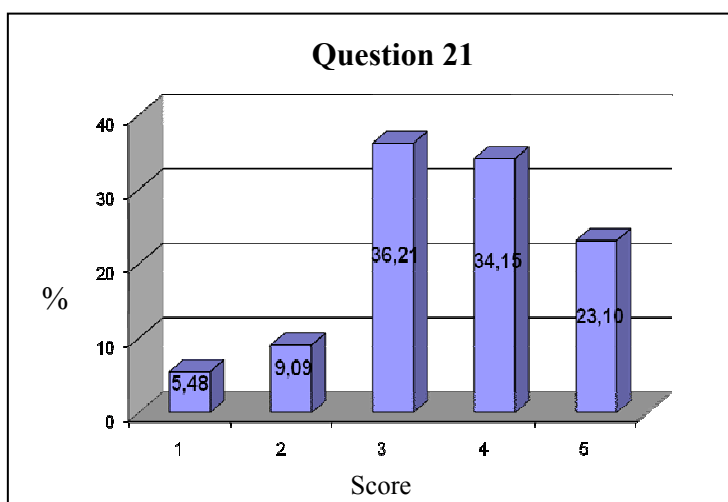
19. Were the instructor's comments detailed and constructive?



20. Was there a chance of assignment improvement given?

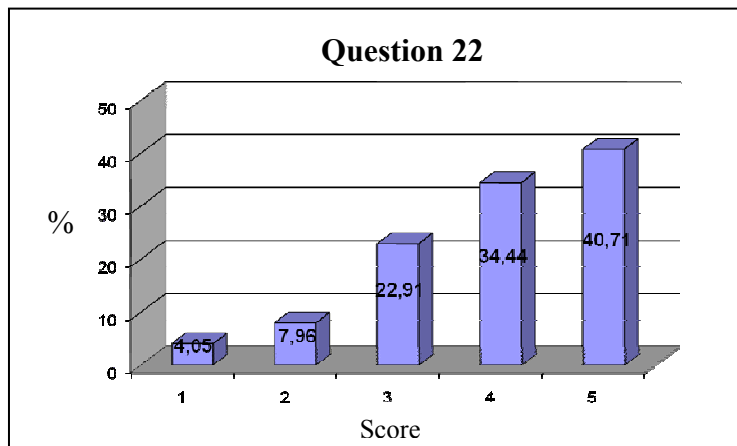


21. Did the specific assignment contribute to understanding the specific object?

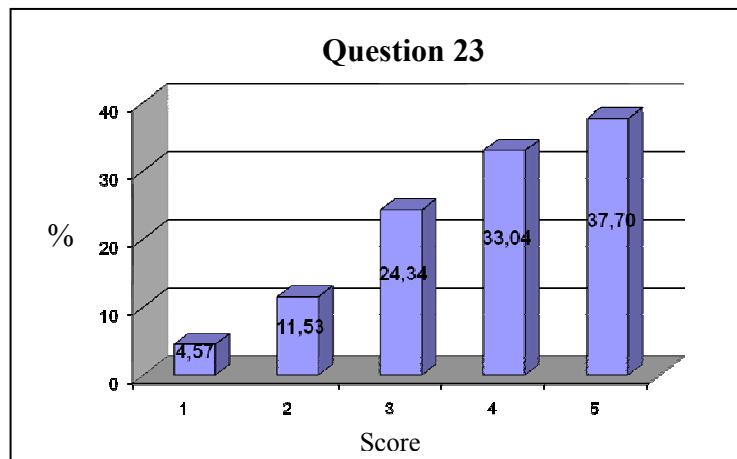


B. The instructor/professor:

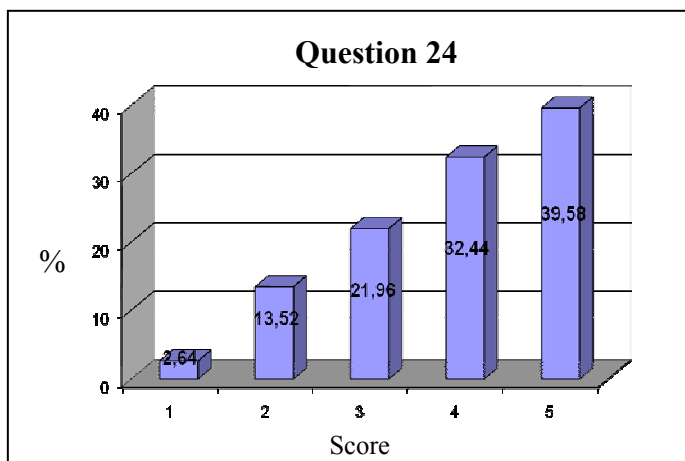
22. Does he/she organize the lesson presentation well?



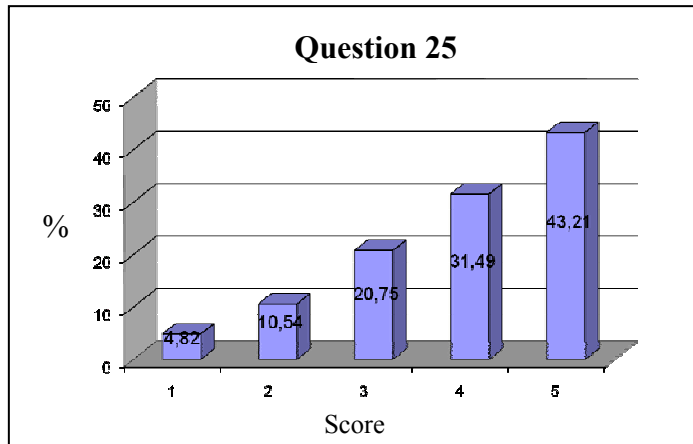
23. Does he/she manage to motivate the students' interest in the course content?



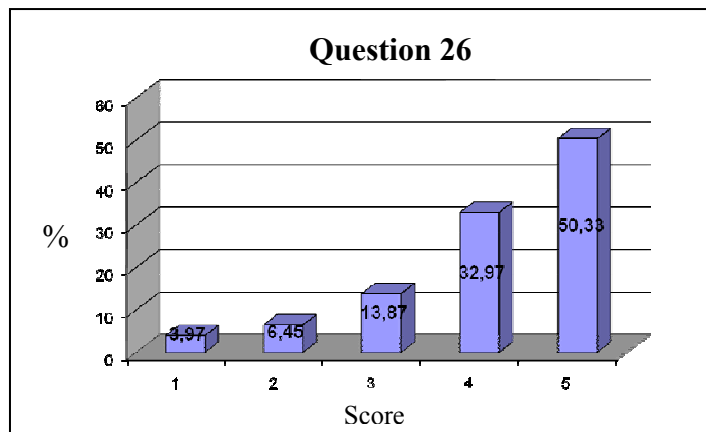
24. Does he/she analyze and present the concepts in an easy and interesting way by using examples?



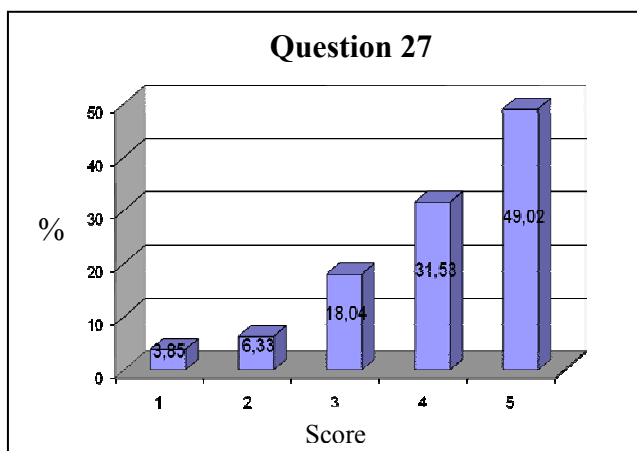
25. Does he/she encourage students to ask questions and develop their judgment?



26. Was he/she consistent with his/her duties (not being absent, timely assignment correction, office hours for students)?

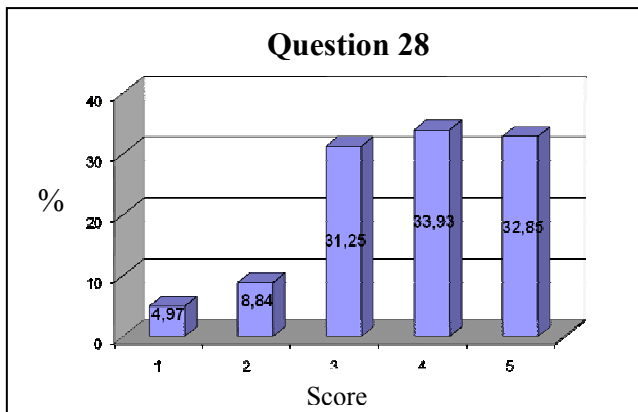


27. Is he/she generally approachable to students?



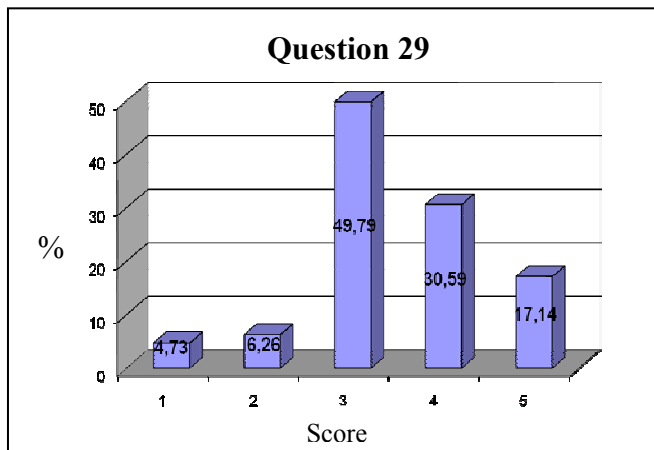
G. Auxiliary staff:

28. What is your opinion of the auxiliary staff's contribution to a better understanding of the material?

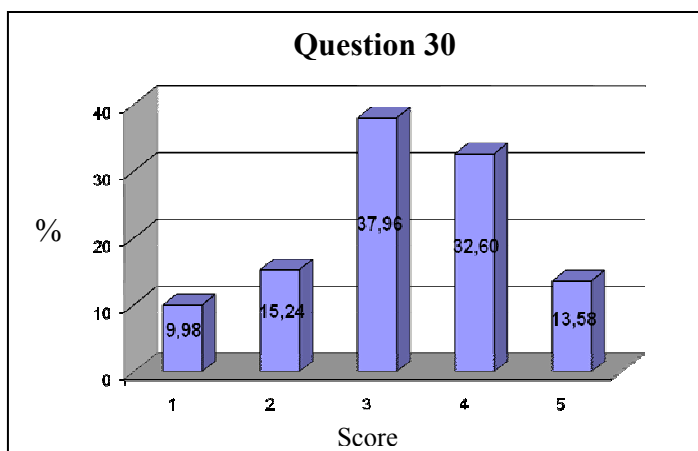


D. The Lab:

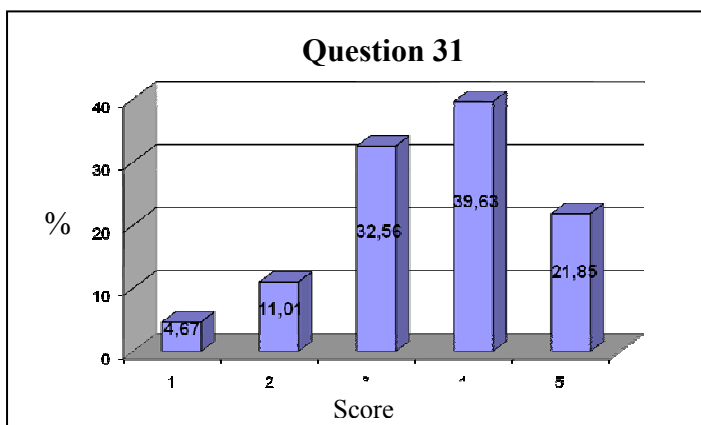
29. What is your opinion of the lab difficulty level in relation to the semester it is taught?



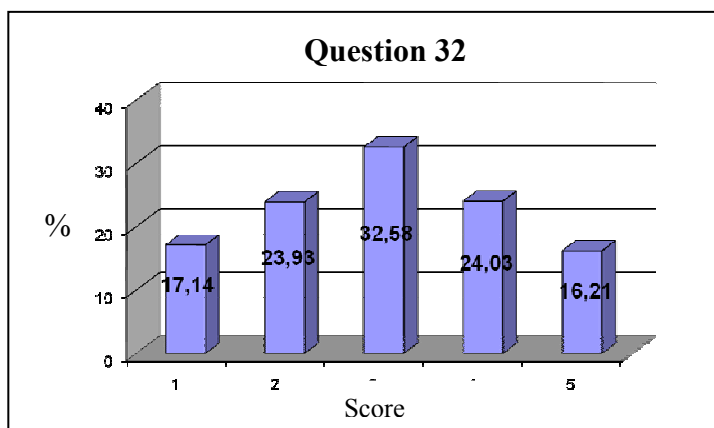
30. Are the provided Lab exercise notes adequate?



31. Are the basic principles of the experiments/exercises explained well?

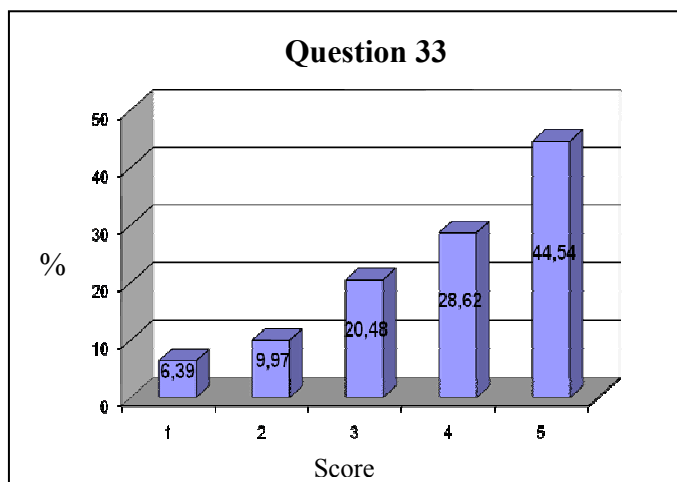


32. Is the laboratory equipment adequate?

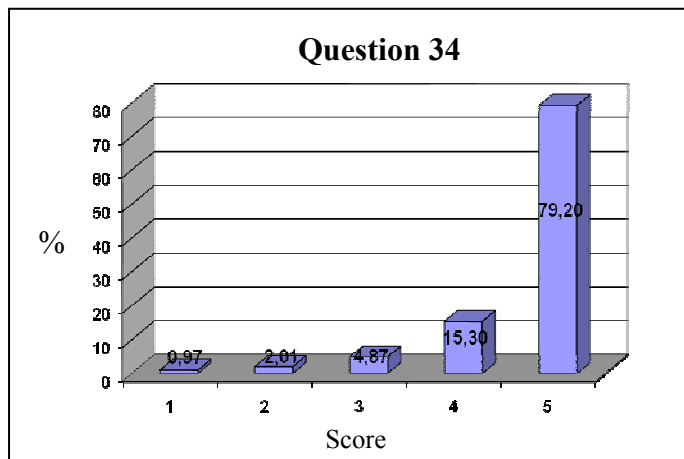


E. The student:

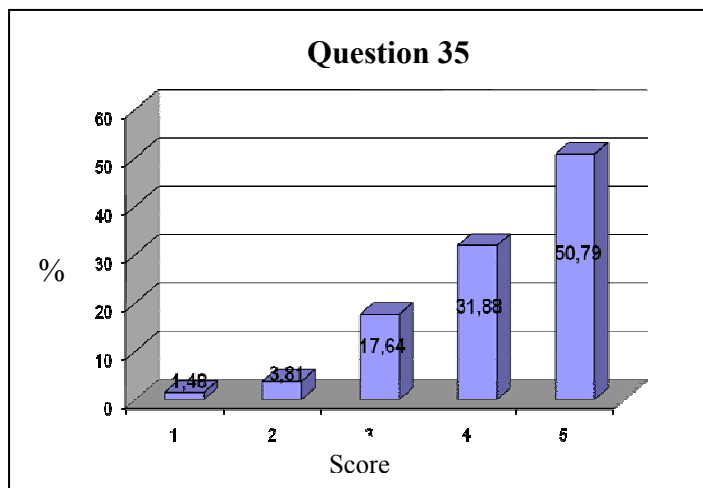
33. I regularly attend lectures.



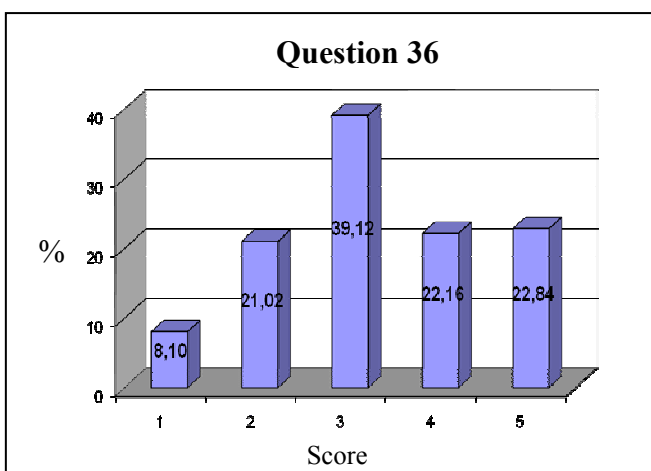
34. I regularly attend lab courses.



35. I systematically do the written assignments/exercises.

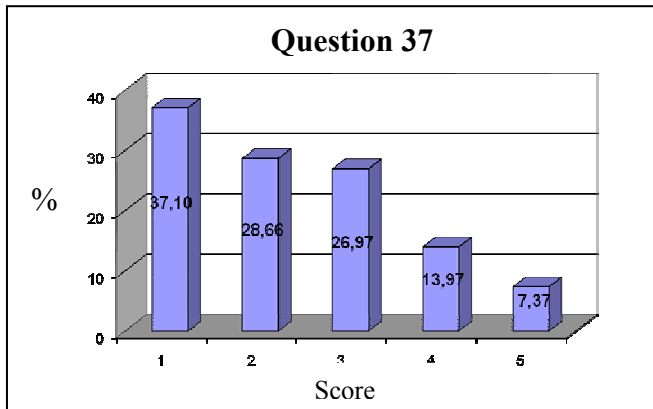


36. I systematically study the material.



37. For the specific subject, per week, I study:

1= <2 hours, 2=2-4 hours, 3=4-6 hours, 4=6-8 hours, 5= >8 hours



14.5 Writing guidelines for the final year dissertation (No ΣΤ, 17/24-11-09)

Dissertation constitutes a significant intellectual work for the students of the Dental Technology Department. They acquire experience in collecting and managing data from various print or electronic information sources, in carrying out a scientific project and they also get more informed about the specific study topic.

The dissertation topic is given to the student after a draw among topics submitted by the teaching staff. The first step to be taken is contact the primary supervisor. In this first meeting, the supervisor analyses the topic and presents some information sources related to it. The student then starts collecting information from the relevant to his/her topic bibliography. Once he/she understands the topic, in cooperation with the supervisor, they make a plan of writing.

Guidelines:

Cover page: according to the model (in the end) without pictures and colorful covers.

Cooperation with the supervisor: must start early enough so that there is time for corrections. Frequent meetings must take place, in which the progress is assessed and corrections are made as for example, digressing from the topic, etc. The student cannot present himself/herself at the last moment just before dissertation submission date and call for urgent cooperation with the supervisor.

Bibliography: reference to the up-to-date bibliography. Undoubtedly, there are articles and books, which even if they are old, they are ‘classic’ and are essentially considered contemporary. Bibliography is limited to journals and books. Brochures and prospectuses offer descriptions of techniques and appliances as well as useful pictures, but the values of the technique or the material or the appliance together with the advantages and disadvantages must come from science-based studies.

Dissertation structure:

Contents: Contents are written on the page after the cover page in the order and numbering they are found in the dissertation. Chapters are divided into subchapters. This is done by selecting different fonts (capitals, small case, bold, italics, etc.) or with a different numbering:

1. UnitX,
 - I. Subunit Y,
 - II. Etc.

Introduction: The subject of the dissertation must be clear throughout the whole project. It is recommended that the aim of the dissertation must be clearly described in a separate paragraph of the introduction.

Historical Overview: the historical overview, for example, may generally refer to prosthodontics and orthodontics, but it is preferable to refer to the specific topic of the dissertation.

General part: the General Part aims at informing the reader and enabling him/her to understand the specific topic treated in the specific part. If, for example, the topic of the dissertation is «Occlusal equilibration of Complete Dentures», the general part must have one unit about Occlusion in general, and about Occlusion in complete dentures, as well as a unit about the properties of materials used, which can lead to “occlusal disharmony” after curing which is a lab procedure and in which denture base is deformed and leads to selective grinding, and of course any other unit considered essential.

Specific Part: The specific part constitutes the main text of the dissertation. All views, if possible, about the under study topic are presented. The method used is described and pros and cons are analyzed. As dissertations of the specific Department deal with laboratory techniques of construction prosthetics or orthodontic works, candidates, themselves, must present their work (constructions) and photos of them are taken into consideration.

Argumentation: Argumentation constitutes the most important part of a dissertation. The writer tries to explain, as explicitly as possible, the various components regarding the topic. Thus, argumentation includes the views of other writers on the topic related to the point or the method presented in the paper. Advantages and disadvantages are mentioned, without being explained again (this has taken place in the general part) and the student has to state his/her point of view. Reference to other writers is always accompanied by documentation.

Conclusions: Conclusions constitute a separate part of a dissertation and are never given in combination with argumentation. They are concisely and in numerical order mentioned. They are never accompanied by in-body citations, as they are the candidate's findings of the whole project. Conclusions are always mentioned starting from the overall ones and ending with the most particular ones.

Summary: 250-300 words describing the subject and generally about the dissertation.

Summary: 250-300 words in English.

References: The numerals you assign to citations in the text of your paper are used to organize the reference list at the end of your paper. List all sources used, beginning with the citation given the numeral 1. List the remaining sources in ascending order. If there more than one citations on the same topic, they are listed in chronological order. If the source is the same and has already been cited, the numerical index is repeated. Citation is written at the end of the paragraph or of the chapter (if the chapter is short).

When citing an author or authors, the index is superscripted after the author's name (e.g. Papadopoulos et al^y). If it has already been cited, you only write the corresponding number. Pictures, photos or graphs, together with their captions, are also cited in the Reference section of the dissertation.

The style followed is the Vancouver Documentation Style.

Examples

Scientific journals: Author of article AA, Author of article BB, Author of article CC. Title of article. Abbreviated Title of Journal. year; vol(issue):page number(s).

- Davenport JC, Heath JR: The copy denture technique. Variables relevant to general dental practice. Br Dent J 1983;155:162-163
- Ζήσης Αλ: Μέθοδος όπτησης οδοντοστοιχιών με μικροκύματα. Ελλ Στοματολ Χρονικά 1993;37:29-34

Scientific books: Author/editor AA. Title: subtitle. Edition(if not the first). Vol.(if a multivolume work). Place of publication: Publisher; Year. p. page number(s) (if appropriate).

Examples

- Δημητρίου Π, Ζήσης Α, Καρκαζής Η, Πολυζώης Γ, Σταυράκης Γ: Κινητή Προσθετική. Ολικές Οδοντοστοιχίες. 4^η έκδοση. Εκδόσεις Μπονισέλ. Αθήνα 2001 Σελ 235-240
- Graig Gr: Restorative dental materials. 8th ed. The CV Mosby Co. St Louis 1989 pp 335

It is advisable that references are written down the moment the sources are collected, so that mistakes and plagiarism are avoided.

Extent and language: The dissertation must be written in Dimotiki, the vernacular form of Modern Greek proper, must be concise and cohesive (e.g. using the third person singular and the passive voice), must be at least 35 pages A4 paper type, justified, font 12, line spacing 1.5. Pages with photos, pictures, tables and graphs must be normally numbered but do not count for the total number of pages.

Submission date: The Dissertation cannot be presented unless 4 copies of it are submitted to the Secretariat of the Department, at least 15 days before presentation due date. Otherwise, it will be presented during the next period. One of the copies must be signed by the primary supervisor, together with the date and the indication: To be presented.

Presentation: Candidate is given maximum 15 minutes in order to present the dissertation and is expected to provide a concise description of it. In doing so, the Candidate must be fully prepared as he/she is expected to describe:

- a. The problem examined and its importance
- b. The research methodology (e.g., sample, data collection, data analysis)
- c. The findings of the study
- d. Study conclusions and implications

Dissertation Committee Members ask the Candidate questions that they consider warrant discussion with the Candidate prior to approval of the Dissertation. These questions may pertain to such matters as why particular approaches were or were not taken by the Candidate, the meaning of the data contained in the Dissertation, or the relationship of the Dissertation findings to other studies.

Dissertation presentation takes place, provided all three Dissertation Committee Members are present.

Marking: The Dissertation criteria assessment embraces the following areas of the work: Task Definition and Methodology, Literature Review and Conceptual Framework, Data Collection, Analysis, Findings and Conclusions, Presentation and Communication of Ideas.

A cover page sample follows.

**TECHNOLOGICAL EDUCATIONAL INSTITUTION OF ATHENS
FACULTY OF HEALTH AND CARING PROFESSIONS
DEPARTMENT OF DENTAL TECHNOLOGY**

TITLE

STUDENT' S NAME

SUPERVISOR: NAME

ATHENS DATE

*14.5 Subject and module semester reports**

*14.6 Students questionnaires**

*14.7 Research protocols of the teaching staff of the Department **

** Kept in the Department archives*