



UNIVERSITY OF L'AQUILA



Department of Health, Life and Environmental
Sciences

Profile of

SINGLE 2nd Cycle Degree in
DENTISTRY

Laurea Magistrale a Ciclo Unico in
ODONTOIATRIA

DEGREE PROFILE OF Laurea Magistrale in ODONTOIATRIA Single Second Cycle Degree in DENTISTRY	
TYPE OF DEGREE & LENGTH	Single Degree (360 ECTS-credits), 6 years
INSTITUTION(S)	Università degli Studi dell'Aquila - <i>University of L'Aquila</i> , ITALY
ACCREDITATION ORGANISATION(S)	Italian Ministry of Education and Research and Ministry of Public Health Albodei Medici Chirurghi e degli Odontoiatri/ <i>Register of Medical Doctors and Dentists</i> (www.fnomceo.it)
PERIOD OF REFERENCE	Programme validated for 3 years for cohorts starting in October 2012
CYCLE /LEVEL	QF for EHEA: Second Cycle; EQF level: 7; NQF for Italy: Laurea Magistrale

A	PURPOSE
	<p>The degree program in <i>Dentistry</i> is a single 2nd cycle and produces professional figures able to carry out the dentistry profession. The general objectives and this program refer to the contents of the new system laid down in the <i>Ministerial Decree n. 509/1999 (and following amendments/integrations)</i> concerning New Degree Classes – 2nd cycle degree program regulations, and defines the 2nd cycle degree programs in compliance with the Directives of the European Union and the University Teaching Regulations of the University of L'Aquila. The study plan includes 360 Credits (CFU) over 6 years, and 60 CFU per year. At the end of the six year program, graduates will have acquired the knowledge and technical skills to work professionally in both the public and private dentistry field. Graduates will also have developed the learning skills needed to continue specialist studies. They will be able to carry out activities relating to the prevention, diagnosis and treatment of congenital and acquired diseases and anomalies of the teeth, mouth, jaw bone, temporomandibular joints and relative tissues, as well as dental rehabilitation, prescribing all the medicines and products needed in exercising the profession.</p> <p>Degree holders obtain the credentials for National Certification as "Dentist" and to join the Italian Register of <i>Medical Doctors and Dentists</i> (www.fnomceo.it), established by Education Ministry.</p>

B	CHARACTERISTICS	
1	DISCIPLINE(S) / SUBJECT AREA(S)	Strong theoretical basis on Biology and Medicine, Dentist Practice (20:30:50)
2	GENERAL / SPECIALIST FOCUS	Specialist on Dentist Professionals
3	ORIENTATION	It is an academic research based degree with a professional orientation applied to the theory and practice of Dentist professional profile, according to International and National Directives on Health Professions.
4	DISTINCTIVE FEATURES	This degree has a strong component of interdisciplinary learning with other Health Care professionals and is developed in a stimulating research environment. Students have a 6/9-months compulsory placement in health departments in Italy and/or abroad for on-field working experiences and research activities.

C	EMPLOYABILITY & FURTHER EDUCATION	
1	EMPLOYABILITY	<p>Upon successful completion of the Program, graduates, having passed the state examination, are eligible to work as Dentists, and be enrolled in the Italian Register of Medical Doctors and Dentists (www.fnomceo.it), who have fulfilled the requirements of European Directive ("Professional Qualifications Directive" 2005/36/EC) on the Recognition of Professional Qualifications.</p> <p>Graduates carry out their professional activities in health care facilities, public or private,</p>

		either as employees or freelance workers.
2	FURTHER STUDIES	The Master Degree in <i>Dentistry</i> normally gives direct access to a wide range of PhD and specialization programs. Furthermore they can carry out research and teaching activities at university.

D	EDUCATION STYLE	
1	LEARNING & TEACHING APPROACHES	Lectures, tutorials/seminars/workshops; group-work and problem-oriented learning, individual study and autonomous learning, interprofessional learning, self directed study, practical and laboratory classes; work placement, reflective practice and integration of learning, observation and treatment of patients.
2	ASSESSMENT METHODS	Assessment is normally by means of an oral or written examination. The final exam consists in the discussion of a written text aimed at demonstrate that the candidate has acquired the essential professional skills and competences related to the professional profile. Degree holders obtain the credentials for accessing the state exam for the enrollment on the Register of Italian Register of Medical Doctors and Dentists (www.fnomceo.it)

E	PROGRAMME COMPETENCES	
1	GENERIC	
	<p>The degree program meets the competences and quality assurance procedures required by the Italian Register of Medical Doctors and Dentists (www.fnomceo.it) and by the National Higher Education Quality Assurance Agency (AVA) requirements for degree courses at second level. This includes the Generic Competences expected for the second cycle graduated, as follows:</p> <ul style="list-style-type: none"> — Analysis and synthesis: Knowledge and understanding of the profession and ability to be critical and self-critical and to make autonomous judgments; — Flexible mind: Ability to make autonomous reasoned decisions and to interact with others in a constructive manner, even when dealing with difficult issues; — Leadership, Management and Team-working: Ability to work in a team and to interact constructively with others regardless of background and culture and respecting diversity; — Communication skills: Ability to communicate both orally and through the written word in first language and in another European language; — Field culture: Ability to apply knowledge in practical situations and to act on the basis of ethical reasoning — Learning ability: Capacity to learn and stay up-to-date with learning — Problem solving: Ability to identify, pose and resolve problems in new or unfamiliar environments within broader and multidisciplinary contexts in providing, organizing and optimizing health diagnostic services; — Other skills: Ability to plan and manage time and to evaluate and maintain the quality of work produced 	
2	SUBJECT SPECIFIC	
	<p>The Program meets all the Specific Competences as established and agreed in collaboration with the field stakeholders, clustered within the key overarching competences summarized below:</p> <p>Deep knowledge and understanding of :</p> <ul style="list-style-type: none"> - the basics of anatomy, histology and physiology, human pathology, integrating the physiopathological and pathological studies with clinical methodology and diagnostic procedures which allow the evaluation of the main disease scenarios; - main correlational conditions and therapeutic, medical and surgical procedures which are complementary to the dentistry profession, as well as basic knowledge of patient care and assistance following the pedagogical principles of psychology, sociology and health ethics; - the medicines which are directly and indirectly correlated to the dentistry practice and understand the implications of pharmacological treatment of systemic pathologies concerning dental treatments; - the science of biomaterials pertaining to the dentistry field; - demographic aspects, prevention and treatment of oral and dental disease. <p>Analysis:</p> <ul style="list-style-type: none"> - ability to identify treatment priorities that are coherent to needs, participating with other subjects in the planning of interventions aiming to reduce oral disease in the community based on the knowledge of the principles and 	

	<p>practice of community dentistry;</p> <ul style="list-style-type: none"> - ability to prevent physical, chemical and microbiological contamination when exercising the profession; <p>Application:</p> <ul style="list-style-type: none"> - ability to practice the full range of general dentistry activities in the context of global patient care without producing additional risks for the patient or the environment; - ability to apply the full range of anxiety and pain control techniques linked to dental treatment (within the limits permitted to the dentist). - ability to correctly interpret legislation concerning the dentistry profession in the country of the European Union they work in, in compliance with the medico-legal regulations and ethics in the country they exercise the profession in and to apply European regulations relative to the experimentation of medicines, in particular medicines for advanced treatments and tissue engineering products. <p>Synthesis:</p> <ul style="list-style-type: none"> - ability to autonomously manage the dental treatment of patients; - ability to recognize the interaction of their practice with the general health of patient; - ability to recognize their own limits in assisting patients and recognize the need to address patients to other medical spheres for treatment; - ability to recognize and assess the main ethical problems involved in experimentation protocols; - ability to formulate detailed autonomous judgments and opinions in order to solve specific problems linked to their professional activities; - Capacity to provide reasons for, analyze, interpret and document the chosen actions and solutions on the basis of reasoning, decision-making, documentation and evaluation processes; <p>Creativity:</p> <ul style="list-style-type: none"> - ability to plan and adapt instruction, guidance and advice as regards problems with time and equipment management; - ability to organize and guide dental teams using the full range of auxiliary dental staff available and plan and enhance the actions aiming to increase human, technological, information and financial resources of the structures where they work; <p>Evaluation and learning skills:</p> <ul style="list-style-type: none"> - ability to evaluate the efficacy of the treatment plan, interventions carried out and results achieved. - ability to organize and plan laboratory activities and to study experimental techniques in detail; - ability to consult databases in order to obtain scientific documentation and analyze scientific literature applying the results of research to treatment in a reliable manner in a continuously evolving field; - development of a study method and ability to work by objectives, both in groups and autonomously; - ability to select and interpret data and information; - acquisition of the learning skills required to continue studies with a high level of autonomy; - ability to perform continuous quality assessment and evaluation of outcomes and results of their work; <p>Problem managing:</p> <ul style="list-style-type: none"> - ability to identify and prevent the problems arising in the lab work and develop suitable solutions; - ability to coordinate, administer and manage specific services and general healthcare services offered to patients with a focus on health promotion, prevention and resilience; <p>Communication:</p> <ul style="list-style-type: none"> - ability to communicate effectively with patients and educate patients in appropriate and effective oral hygiene techniques, providing appropriate information, based on knowledge accepted by the scientific community, to obtain the informed consent to treatment; - ability to communicate both verbally and in writing scientific knowledge, both specialist and educational, also in English; - ability to develop an interdisciplinary approach to clinical cases, also and above all in collaboration with other medical and health professionals, developing knowledge of the rules and dynamics of group work in the healthcare field.
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F	COMPLETE LIST OF PROGRAMME LEARNING OUTCOMES
	<p>Upon a successful completion of the MA program of <i>DENTISTRY</i> students will gain</p> <p>advanced knowledge of:</p> <ul style="list-style-type: none"> - biomedical sciences which form the basis for understanding human growth, development and health; - oral biology, to include detailed knowledge of the form and function of teeth and associated structures, in health and disease;

- modern developments in biomolecular sciences that may impact upon the practice of dentistry;
- human diseases and pathogenic processes, including genetic disorders, and the manifestation of those
- diseases which are particularly relevant to the practice of dentistry;
- diseases and disorders of the oral cavity and associated structures, their causes and sequel together with the principles of their prevention, diagnosis and management;
- sources of infection and the means available for infection control;
- medical emergencies that may occur in the dental surgery and their prevention and management, including basic life support;
- patients' responses to dental care and an understanding of how these may be affected by experience and psychological, social and cultural influences;
- specific dental topics including behavioral sciences, biomaterials science, pain and anxiety control, dental public health, oral and maxillo-facial surgery, oral medicine, oral microbiology, oral pathology, oral radiology, orthodontics, pediatric dentistry, pharmacology and therapeutics, preventive dentistry, restorative dentistry;
- the medico-legal and ethical principles upon which the practice of dentistry is based, especially those relating to treatment of patients and involvement of patients in research and the system for the delivery of health care in Italy with special reference to oral health care;
- the importance of clinical audit, peer review and continuing professional education and development

Ability to:

- exercise initiative and personal responsibility;
- communicate effectively at all levels in both the scientific and professional contexts using verbal, non-verbal and written means;
- work effectively as members of a team;
- use information technology as a means of communication, for data collection and analysis, and for self-directed learning;
- analyze and resolve problems, and deal with uncertainty;
- make decisions based on sound ethical, moral and scientific principles;
- manage their learning in the context of establishing a philosophy of continuing professional development;
- acquire, analyze, process and communicate information in a scientific manner to solve problems and to guide clinical decision-making;
- evaluate the evidence published in refereed scientific journals and other publications for sound experimental design and statistical analysis;
- evaluate the validity of claims related to products or techniques.

Capacity to:

- understand the role and function of the Register of Dentists in regulating the dental profession, and be familiar with its issued guidelines;
- understand the role, function and obligations of the National Health Service;
- apply jurisprudence to the practice of dentistry and manage the arising ethical issues;
- understand the ethical and legal basis of confidentiality, including the need to maintain accurate and complete patient records in a confidential manner;
- provide empathetic care for all patients, including members of diverse and vulnerable populations, and respect the principle of patient autonomy;
- base their care of patients on a sound knowledge and experience of the psychological aspects of human behavior particularly in the management and treatment of the child patient;
- agree dental treatment plans with patients of all ages and, where necessary, through the intermediate consent of a parent, guardian or carer;
- display appropriate behavior towards all members of the dental team;
- assess personal progress, including the identification of strengths and weaknesses and use the principles of peer review and quality assurance in dental practice;
- evaluate social and economic trends and their impact on oral health care;
- recognize their role in and responsibility for improving the general and oral health of the community through treatment strategy, education and service;
- assess the need for, and provide, preventive procedures and instruction in oral health methods that incorporate sound biological principles in order to preserve oral hard and soft tissues, and to prevent disease;
- recognize the changes that occur with normal growth and ageing and apply their knowledge in the management of the oral environment;
- apply their knowledge of the etiology and processes of oral diseases in prevention, diagnosis and treatment;
- understand the legal basis of radiographic practice;
- implement and perform satisfactory infection control and prevent physical, chemical or microbiological contamination in the practice of dentistry;
- recommend and prescribe appropriately pharmaco-therapeutic agents, monitor their effectiveness and safety, and be aware of drug interactions;

	<ul style="list-style-type: none"> - recognize abnormalities of facial growth and development in dental patients and arrange appropriate management of such disorders either within the dental practice or by referral to the relevant specialist; - manage patients with facial pain, disease and disorders of the oral cavity and associated structures, including a recognition of when it is appropriate to refer for specialist help and advice; - manage basic dento-alveolar surgical procedures, including intra- and post-operative complications and recognize when it is appropriate to refer for specialist help and advice; - understand the importance of and procedures for submitting specimens for laboratory diagnosis and demonstrate the ability to interpret diagnostic reports; - manage diseases and conditions involving the pulpar and periradicular tissues in both primary and permanent teeth; - manage and integrate the procedures necessary to provide biocompatible, functional and aesthetic dental prostheses (fixed and removable) in sympathy with patient requirements or needs; - assess patient risk for dental caries and non-bacterial tooth surface loss and be able to provide dietary counseling and nutritional education for the patient relevant to oral health and disease, based upon knowledge of disease patterns and etiology; - restore teeth to form, function and appearance with appropriate materials, using techniques that preserve the health of the pulp and avoid the unnecessary loss of tooth tissues; - manage the health and care of the supporting structures of the teeth; - recognize their duty of care to manage the oral health of the patient with special needs (including the additional considerations for the dental team) and involve the patient's career where appropriate.
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Comprehensive Scheme of the Single Second Cycle Degree in DENTISTRY				
YEAR	CODE	COURSE	Credits (ECTS)	Semester
I	D3388	Basic and Applied Human Anatomy	11	1 and 2
	D3104	Biochemistry	12	1 and 2
	D0260	AppliedBiology	8	1
	D3384	Applied Physics	7	1
	D3396	General and Applied Histology	7	1
	D3402	Scientific Methodology, Informatics and English Language	15	2
II	D4053	General and Applied Physiology	10	1 and 2
	D4339	Clinical Biochemistry and Molecular Biology	3	1
	D1758	General Pathology and Immunology	7	1
	D3454	Hygiene and Microbiology	14	2
	D3430	Foundations of Preventive and Community Dentistry	15	2
III	D3346	Laboratory Diagnostics	9	1
	D0488	Pharmacology	6	1
	D3464	Dental Materials and Prosthetic Technologies	15	1
	D3142	Special Odontostomatologic Pathology	10	1 and 2
	D4353	DiagnosticImaging and Radiotherapy	8	2
	D3514	MedicalSciences I	10	2
	D3528	MedicalSciences II	9	2
IV	D4361	OralSurgery I	5	1 and 2
	D3552	Neurology, Psychiatrics and Psychology	6	1
	D3560	SurgicalSciences	15	1
	D4360	Forensic Medicine	4	1
	D3592	Orthodontics and Gnathology	10	1 and 2
	D3584	Cariology and Conservative Dentistry	9	2
	D3602	Periodontology and Prosthodontics	11	2
V	D3612	Endodontics and Restorative Dentistry	8	1
	D3632	Periodontology	7	1
	D3650	Pathology and Maxillo-Facial Surgery	10	1
	D3696	Prosthodontics	4	1
	D4381	Clinical Odontostomatology	6	2

	D3728	Impantology	9	2
	D3714	Pediatric Dentistry	9	2
	D3702	Orthodontics	7	2
VI	D3754	<i>Work Placement I:</i> ✓ Restorative Dentistry (5 ECTS)	23	1
	D3756	✓ Endodontics (5 ECTS)		
	D3758	✓ Pediatric Dentistry (4 ECTS)		
	D3760	✓ Preventive and Community Dentistry (4 ECTS)		
	D3762	✓ Clinical Odontostomatology(5 ECTS)		
	D3624	<i>Work Placement II:</i> ✓ Periodontology(5 ECTS)	23	2
D3704	✓ Orthodontics and Gnathology (5 ECTS)			
D3766	✓ Gnatology (3 ECTS)			
D3772	✓ Prosthodontics(5 ECTS)			
D3778	✓ Oral Surgery (5 ECTS)			
		<i>Optional Activities/Courses</i>	8	1 or 2
		<i>Thesis</i>	10	2