SASSARI UNIVERSITY MEDICAL AND DENTAL SCHOOL

SARDINIA - ITALY

DentEd Site Visit Report

May 2000, 14-17
SASSARI UNIVERSITY MEDICAL AND DENTAL SCHOOL
DentEd Site Visit May 2000, 14-17

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Part I

Self Assessment Document

Visitors
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SECTION 1 Introduction and general description

This section was prepared according to the previous required Questionnaire for Dented-Site visit information

1.1 Please set out on one page a mission statement for your School identifying its primary functions and responsibilities. Do no exceed a page.

Function of Dental School of Sassari University as the other Dental School in Italy is to qualify undergraduate students in dental field and to prepare them to became dentist. Our students have and overall preparation on all dental disciplines but with no doubt our strength point is Paediatric Dentistry.

Dental School is part of the Faculty of Medicine, which accounts nowadays two under graduate curricula (Medical and Dental) and 8 Diploma curricula -3 year long- for auxiliary personnel (like Dental Hygienist). All the curricula are independent, under the control of singular Council, but final decisions and budget administration are under the control of the Faculty.

Regarding postgraduate dental students Sassari University has a Doctorate in Preventive Dentistry, a new Speciality School for Oral Surgery and a postgraduate advanced course in Paediatric Dentistry.

1.2 Please In that statement please includes your School's commitment to undergraduate, postgraduate, continuing, auxiliary education and training; patient services and researches. This should provide the visitors with a clear picture of what your responsibilities are and what you actually do.

1.2 (previous Questionnaire 1.3) Please provide a description of your dental school or organisation for the purpose to inform people from other countries about your school or organisation and its particular features of interest, including a brief historical references and its relationships within the University if it is appropriate (A format for this is provided in section 1 part 2)

- Dental curriculum in Italy
  History of Dental Schools is very short in Italy. Our country was unified in 1860. Only after 60 years (1920) Dentistry was recognised as being part of Medical profession and introduced in student curriculum of Medical Faculty. Dental practice was allowed to physicians (Medicine graduate). Afterward Speciality in Dentistry was also introduced in Medical post-graduate curriculum, but optional.

Dental Schools were established in 1980 due to the statement of European Community (EEC) after many quarrels not yet concluded. In 1985 Dental profession was allowed after a Dental curriculum, but until 1990 it was allowed to Medical graduate too, and only in 1993 Medical Speciality Schools in Dentistry were closed.

Nowadays Dental School is the only way to Dental profession. On the total of 45.000 dentists enrolled in Italy, 10.000 are Dental graduate, 10.000 are Medical graduate with Speciality in Dentistry, and 25.000 are physicians without any Speciality. A new law is under discussion in Italian Parliament, and some changes could yet be introduced.

- School of Dentistry in the University of Sassari
  In the year 1980 Dental School for undergraduate students and Dental Speciality for Medical graduate were introduced in the University of Sassari. Dental Speciality remained until 1993 and specialised during ten years about 130 physicians.

Dental School is organised (see Section 3) with a Dean and a Council for teaching problems, with the help of two Committees: Teaching Committee and Tutorial Committee. It graduated until now (1999) 140 dentists on 160 registered students.

Dental School is related in the Medical University Hospital, which, at the moment includes Dental Department (Institute), Orthopaedic and Urology Depts. Other Medical Clinical Depts. are directly connected with the National Health Service, supported by Minister of Health. Some other Biological Institutes.

Dental curriculum (see Section 5 to 16) includes Basic Sciences (Chemistry, Physics, Biology), that are attended in conjunction with Medical students, Bio-medical Sciences and Oral Sciences. We have bio-medical and basic versus dental disciplines 18 : 9 respectively; the dental disciplines include biannual and triennial courses so that results professional, and biomedical and basic sciences have a ratio 1:1 (18:18).

All professors are Medical graduates, and only some junior researchers are Dental graduates, recently entered in the staff.

Please, note that professors derived from Medical School and often keep teaching clinical and research responsibilities it. This is due partially to the short history of Italian Dental Schools and partially to budget problems.

In addition, Sassari is a small University with few professors, usually charged for both Medical and Dental Schools, or for other courses. Consequently, their time is divided in many different Schools, and only a part time is dedicated to Dental School.

Only the Staff at the Dental Institute is working full time to Dental School.

In the staff of Dental Institute are 9 persons (7 full time and 2 part-time. The seven ones are dedicated to clinical training, and 2 of them are junior researchers (clinical tutors). In addition 7 voluntary part-time tutors (3 post-graduate students and 4 appointed part-time professors in Dental Hygienist School).

Dental Institute provides pre-clinical and clinical training: Pre-clinical with 15 manikins and 8 phantom heads for clinical units.

SASSARI Visit Report August 2000.doc
Clinical with 28 dental units for different Departments.
Some lectures are done in the same Institute, and other lectures are done in lecture theatres of the Faculty of Medicine (see section 2.2).

**Preliminary Data from Dental School**

Please note that you need not complete the entire question at once. If some questions cause difficulty you may decide to leave them unanswered until a later date.

### 1.3 (previous Questionnaire 1.7) Basic data on students

- Average number of dental students qualifying per year: 9
- Average number of dental students admitted to the first year: 10 *
- Length of course in years and/or in semesters: 5 years (10 semesters)
- Is there a separate period of vocational training following graduation as dentist in your country? **NO**
- If yes to above, is that organised by the University/Dental School?

**Please note:** *because of forensic Court decision, many other students were admitted in the last past years; in Sassari only 7 more were admitted, but in other Italian Schools many other*

**Please note:** **the problem of training after graduation is under discussion at this moment in Italy**

### Statistics

Statistics of our Dental School, from 1980 to 1999, are as following:

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduated during the 5th year</td>
<td>37</td>
<td>26.4%</td>
</tr>
<tr>
<td>Winter late Session 5th year</td>
<td>30</td>
<td>21.4%</td>
</tr>
<tr>
<td>6th year</td>
<td>53</td>
<td>38.0%</td>
</tr>
<tr>
<td>Delayed</td>
<td>20</td>
<td>14.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>140*</td>
<td>until March 1998 (121)</td>
</tr>
</tbody>
</table>

- Students transferred n.6
- Missing n. 4
- New registered n.8

### 1.4 (previous Questionnaire 1.8) List the Departments or if more appropriate Sections within departments in the School and in brackets the total number of whole equivalent clinical academic staff (i.e. a full-time staff member = 1, a part-time staff member who attends for one half day per week = 0.1, two half-days = 0.2 etc.) and assigned to each one

<table>
<thead>
<tr>
<th></th>
<th>WTE academic staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dental Institute</td>
<td>Conservative Dentistry</td>
</tr>
<tr>
<td>2 Dental Institute</td>
<td>Paediatric Dentistry</td>
</tr>
<tr>
<td>3 Dental Institute</td>
<td>Oral Surgery</td>
</tr>
<tr>
<td>4 Dental Institute</td>
<td>Prosthodontics</td>
</tr>
<tr>
<td>5 Dental Institute</td>
<td>Periodontology</td>
</tr>
<tr>
<td>6 Dental Institute</td>
<td>Orthodontics</td>
</tr>
<tr>
<td>+ other in Medical Faculty</td>
<td>(see 1.18)</td>
</tr>
</tbody>
</table>

### 1.5 (previous Questionnaire 1.9) Number of auxiliaries trained each year

<table>
<thead>
<tr>
<th></th>
<th>Annual output</th>
<th>Length of course (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dental nurses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>technicians</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>dental hygienists</td>
<td>5 *</td>
<td>3</td>
</tr>
<tr>
<td>dental therapists</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>other expanded duty auxiliaries (please explains)</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Please note:** *our Faculty Constitution establishes admittance of 10 students per year. This number can be reduced by decision of both Minister of Health and Minister of University. For this reason, we have now 7 students at 3rd year, 3 students at 2nd year and 5 students at 1st year*

### 1.6 (previous Questionnaire 1.10) Specialist and Higher degree training courses

SASSARI Visit Report August 2000.doc
<table>
<thead>
<tr>
<th>Subject/Speciality</th>
<th>Degree Awarded</th>
<th>Length of Course</th>
<th>Annual students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive Dentistry</td>
<td>Doctorate</td>
<td>3 years</td>
<td>1 - 3 *</td>
</tr>
<tr>
<td>Paediatric Dentistry</td>
<td>Postgraduate advanced course**</td>
<td>1 year</td>
<td>3</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>Speciality ***(<em>starting this year</em>)</td>
<td>3 years</td>
<td>1</td>
</tr>
</tbody>
</table>

**Please note:** *Doctorate is annually renewed under the authorisation of the Minister of University, nowadays (academic year 1999-2000) the authorisation of the University Academic has not yet arrived.

**Paediatric Dentistry is a course allowed by the Faculty each time only for no more than one year. We asked for a Speciality in Paediatric Dentistry (submitted to approval of the Minister of University)

***Specialities are submitted to approval of Minister of University; for Oral Surgery the Speciality School is recent approved and we are organising for starting in the current year.*
### Staff and Resources

#### 1.7 (previous Questionnaire 1.11) Breakdown of staff numbers in Dental School/Hospital (avoid double counting of any individual)

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Heads of Departments</td>
</tr>
<tr>
<td>B</td>
<td>Senior Clinical Academic Staff (Professor)</td>
</tr>
<tr>
<td>B</td>
<td>Associate Professors, Readers, Senior Lecturers or their equivalent</td>
</tr>
<tr>
<td>B</td>
<td>Associate Professors, Readers, Senior Lecturers or their equivalent</td>
</tr>
<tr>
<td>B</td>
<td>Associate Professors, Readers, Senior Lecturers or their equivalent</td>
</tr>
<tr>
<td>B</td>
<td>Associate Professors, Readers, Senior Lecturers or their equivalent</td>
</tr>
<tr>
<td>B</td>
<td>Senior Researcher/Academic Staff (excluding those in a) and b) above)</td>
</tr>
<tr>
<td>B</td>
<td>Senior Researcher/Academic Staff (excluding those in a) and b) above)</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>D</td>
<td>All other Clinical Teaching Staff</td>
</tr>
<tr>
<td>F</td>
<td>All administrative and secretarial staff</td>
</tr>
<tr>
<td>F</td>
<td>All administrative and secretarial staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>G</td>
<td>All nursing and auxiliary staff</td>
</tr>
<tr>
<td>H</td>
<td>Dental Technical Laboratory Staff</td>
</tr>
</tbody>
</table>

All clinical staff with exclusively service commitments, excluding those listed and who are not involved in academic dentistry

#### 1.8 (previous Questionnaire 1.12) Total number of all staff employed in Dental School (including those listed in question 11 above)

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>a+b+c</td>
<td>6 (whole time equivalent=4.0)</td>
</tr>
<tr>
<td>d+e</td>
<td>4 (whole time equivalent=0.8)</td>
</tr>
<tr>
<td>f+g+h</td>
<td>7 (whole time equivalent=6.5)</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

#### 1.9 (previous Questionnaire 1.13) Annual total salary budget for all staff of Institution (1998) in Euro (include all costs even if covered by another faculty/school/institution)

Euro 1,523,760.33

#### 1.10 (previous Questionnaire 1.14) What is the approximate ratio of full-time staff to part-time staff

In supervision of students’ clinical training

0.5:1

#### 1.11 (previous Questionnaire 1.15) what is the average number of hours per week spent by full time senior clinical academic staff treating patients?

18 hours per week
1.12 (previous Questionnaire 1.16) Please indicate the number of hours students spend in *patient* treatment* (on average) per week:

- year 1: none
- year 2: none
- year 3: 15 (as assistant)
- year 4: 15
- year 5: 21

*Patient treatment includes oral/dental treatment of actual patient and not simulation or time spent in pre-clinical laboratories*

1.13 (previous Questionnaire 1.17) Please indicate the number of hours students spend in “simulated” patient treatment (on average) per week (such as manikin or phantom head laboratory).

**Hours:**
- year 1: 2
- year 2: 4
- year 3: 4
- year 4: 2
- year 5: -

1.14 (previous Questionnaire 1.18) Total number of patient visits to the Dental School/Hospital per year by department or clinic

<table>
<thead>
<tr>
<th>Name/Department/Unit</th>
<th>N. of patients</th>
<th>N° of Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dental Institute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First visit</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Restorative Dentistry Dept</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>Paediatric Dentistry Dept.</td>
<td>400</td>
<td>1,200</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>200</td>
<td>2,400</td>
</tr>
<tr>
<td>Oral Surgery Dept.</td>
<td>100</td>
<td>250</td>
</tr>
<tr>
<td>Periodontology (including root scaling)</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

| **University Hospital**           |                |                  |
| Medicine                         | 200            | 200              |
| General Surgery                  | 10             | 10               |
| Neurology                        | 80             | 80               |
| Paediatrics                      | 160            | 160              |
| Dermatology                      | 20             | 20               |
| E.N.T.                           | 25             | 25               |

| Overall total (all departments)  | 2,745          | 6,845            |
SECTION 2 - Facilities (including Library, Lecture Theatres, Seminar rooms, etc)

2.1 Clinical Facilities
General Explanation - Dental Institute provides pre-clinical and clinical training:
Pre-clinical with 15 manikins and 8 phantom heads for clinical units
Clinical with 28 dental units for different Departments.

The Clinic is a part of the University Hospital. University Hospital follows the roles and the laws of national Health Service and at the same time of the University.

Strengths - With 28 units, each student during the clinical training may have one unit with own responsibility and can visit and treat a certain number of patients.

Weaknesses - Not all units are new and exactly functional. The clinical facilities are common for Dental School (20 students acting as operator + 10 students acting as assistant) and for Dental Hygienist School (10 students acting as operators + 5 acting as assistant).

Innovations - We are trying to renew the old units.

2.2 Teaching Facilities
General Explanation - Some lectures are done in the Dental Institute, and other lectures done in lecture theatres of the Faculty of Medicine or in rooms of other Institutes. We can also utilise rooms in the Student Center, in addition all teaching structures of the Medicine School are available for dental students.

Strengths - Students have not to move the clinic because most of lectures are done in the same building. Other ones are in the same campus not far from Dental Institute.

Weaknesses - Not all facilities are organised for the Dental School purposes.

Best Practices - The number of students is ten per year and so the relationship between teachers and students can be more friendly than formal.

Innovations - We are planning to use in the future internet and Informatics facilities to help students.

2.3 Teaching Laboratories
General Explanation - Students can do pre-clinical training with 15 manikins + 8 phantom heads to be placed on the dental unit. They can also be present in technical Dental laboratory. They utilise laboratories of Medical Faculty in different Institutes during the courses of Bio-medical lectures.

Strengths - A ratio of one mankin/ one student is sufficient for Pre-clinical training in Conservative Dentistry and Endodontics, Paediatric Dentistry.

Weaknesses - No pre-clinical training is used until now for Prosthodontics

Best Practices -

Innovations -

2.4 Research Laboratories
General Explanation - We use Research Laboratories in the Faulty of Medicine. University has some Centres (like SEM) for research utilised by all the Depts.

Strengths - Students are directly involved in research field. Their research work is oriented to prepare a thesis for final examination.

Weaknesses - Few students are involved in Basic and Clinical Research Projects both in Medical and in Dentistry fields. The research grants are too few.

Best Practices -

Innovations -

2.5 Library
General Explanation - Students may have access in some different libraries: University library, Faculty one, Student Center. Other small libraries on specific matters such as Dentistry, Hygiene, Anatomical Pathology and General Pathology are also available.

Strengths -
Weaknesses - Few books and Journals devoted to Dentistry in the other libraries. The small libraries have no dedicated personnel.

Best Practices -
Innovations -

Visitors comments -
2.6 Students Facilities

2.6.1 General Explanation

Students is supported by ERSU (Regional Authority for University Students) for grant, accommodations, and cultural activities. ERSU works as an independent organisation, and receiving funds by the Regional Government. The budget of 5.500.000.000 Italian Lira (Euro 2,750,000) is reserved for grants, for all students following to the number of students in each Faculty. The grant varies between 1,000 and 2,500 Euro for each student, who should fill in an application form for it; he/she can receive according to academic merit and financial family situation. Dental students receive in the 1998/99 11 grants with the following statistics:

<table>
<thead>
<tr>
<th>University Students</th>
<th>Dental School students</th>
<th>Requests for Grants</th>
<th>Grant requests</th>
<th>Grants obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,612</td>
<td>55</td>
<td>2,870 (17%)</td>
<td>16 (29%)</td>
<td>11 (20%)</td>
</tr>
<tr>
<td>1,630 (&gt;10%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Budget for cultural activities is utilised mainly for cultural travels in foreign countries. Dental students utilised this fund in the past for individual travel in France (Reims University) for achieving materials for their thesis, or for collective travels to visit foreign Faculties. In the current year (1999/2000) a visit to Strasbourg (France) and Belgian Faculties (Brussels, Gent, Leuven) was organised for the students of 3rd, 4th and 5th year. In the past, Erasmus and Socrates programmes were used by dental students, for interchange with French Faculties (Paris V, Reims). At moment several programmes for co-operation with some foreign Schools are being carried out:

♦ Jordan University in Amman (Jordan), we received a Jordan post-graduate student and we have a research project in collaboration with that University, granted by Sardinian Regional Authority and Italian Foreign Office;
♦ Granada University (Spain);
♦ La Plata University (Argentina);
♦ La Paz University (Bolivia);
♦ Avana University (Cuba);

Strengths - These contacts allow a culture interchange between different students. The Dental School send all the students to a visit Academic Institution of other countries.
Weaknesses - Not all students can use this way.
Best Practices -
Innovations -

Visitors comments –

2.6.2 Describe briefly student-counselling services in the University

The University organise a tutorial service. In our Dental School a Tutorial Committee (chairman professor Tadolini) organises the service as following:

at the beginning of each semester, the curriculum is presented to all students;
at the end, every student should fill a questionnaire regarding the evaluation of their education and the teaching quality;
each student has a professor as personal tutor for personal counselling;
during the clinical training, junior tutors (junior academic staff or voluntary postgraduate students) assist students Students can ask directly the Committee (Chairman) for solving his personal curriculum problem.

According to a National Law in Italian University each professor should be tutor for his own students. Every professor reserve, usually one hour per week for specific counselling regarding the professor specific matter, usually assisted by a junior tutor.

Strengths - Students are really helped by professors for specific counselling on teaching matter.
Tutorship is really accepted and asked for the clinical training (iv)
Weaknesses - only sometime some students ask for the personal curriculum problems (v). Students don’t ask for other services, particularly for the general counselling (iii)
SECTION 3 - Organisational and Administrative Structures

Person in School who will explain and show this to visitors:

Name: Rag. Luciano Nuvoli
E-mail: 

Please explain (in simple diagram form if possible) the organisational structures under which the school operates including its relationship to hospital, university, medical school/faculty as well as the departmental structures within the dental school.

3.6 - Organisational structures
The Dental School has not full-time secretarial staff. Sometimes the School is supported by the staff of the Faculty of Medicine, but mostly is the secretarial staff of Dental Institute to support if necessary.

There is a Council of the School with a Dean, and two Committees, Teaching Committee and Tutorial Committee;

Each problem regarding teaching, tutorial and clinical training are submitted to the Council of the School.

3.7 - Relationship to Hospital University
From administrative point until this year (2000), the University hospital included only three Departments (Dentistry, Urology, Orthopedics). All other departments and clinics of the faculty of Medicine were intermingled with the NHS. Starting from the next few months all departments and clinics of the faculty will join together to build up a new University Hospital directly connected to NHS with own administrative staff.

Of course, a good co-operation and co-working with the School and all the Departments of the faculty has been established since Dental School started.

3.8 - Relationship to University
by means the Faculty

3.9 - Relationship to Medical Faculty
Dental School is a part of the Faculty of Medicine. The Faculty includes two Schools (Medicine and Dentistry) and seven Diploma courses. The Faculty should approve all Dental school’s Council Administrative deliberations.

3.10 - Departmental structures within the Dental School
In the Faculty there are several departments shared by Medicine, Dental School and Diploma courses.

Please explain what information technology systems your school employs in respect of student education/training, patient records, and management and finance system. Explain if any of these systems are innovative or potentially useful to other dental schools.

17 Information technology for student education/training
At the moment we are planning to put in University Website all the information about curricula, objectives, textbooks, assessment methods and organisation of the Dental courses.

18- Information technology for patient records
Some clinics have an informatic patient records technology and this technology is used for clinical and research work. In the dental Institute a informatic system will be carried out in this period. The system works under Windows NT4.0® server; the software Pcdental® Softwork-Italy allows to schedule patients records archives and the day time-table work.

19- Information technology for management and finance system
### SECTION 4 – Staffing

1) **List of Academic Staff, by Department and their Qualifications** (list below)

<table>
<thead>
<tr>
<th>N°</th>
<th>NAME</th>
<th>ROLE</th>
<th>Institute/ Department/ Faculty</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agnetti Virgilio</td>
<td>A.P.</td>
<td>Neurology</td>
<td><a href="mailto:clineuro@ssmain.uniss.it">clineuro@ssmain.uniss.it</a></td>
</tr>
<tr>
<td>2</td>
<td>Amato Romano</td>
<td>F.P.</td>
<td>Institute of Dentistry</td>
<td><a href="mailto:dental@ssmain.uniss.it">dental@ssmain.uniss.it</a></td>
</tr>
<tr>
<td>3</td>
<td>Arena Nicolo’</td>
<td>A.P.</td>
<td>Institute of Dentistry</td>
<td><a href="mailto:istomed@ssmain.uniss.it">istomed@ssmain.uniss.it</a></td>
</tr>
<tr>
<td>4</td>
<td>Baldoni Edoardo</td>
<td>A.P.</td>
<td>Institute of Dentistry</td>
<td><a href="mailto:profbald@ssmain.uniss.it">profbald@ssmain.uniss.it</a></td>
</tr>
<tr>
<td>5</td>
<td>Bar Umberto</td>
<td>Ap. P.</td>
<td>Institute of Dentistry</td>
<td><a href="mailto:dental@ssmain.uniss.it">dental@ssmain.uniss.it</a></td>
</tr>
<tr>
<td>6</td>
<td>Bossu’ Mario</td>
<td>R.</td>
<td>Institute of Dentistry</td>
<td><a href="mailto:mabossu@ssmain.uniss.it">mabossu@ssmain.uniss.it</a></td>
</tr>
<tr>
<td>7</td>
<td>Cappozzo Aurelio</td>
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<td>20</td>
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<td>Pasquali Francesco</td>
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<td>Sesenna Enrico</td>
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</table>
Aurea Lumbau  
R. Institute of Dentistry  
alumbau@ssmain.uniss.it

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The Dental Curriculum

SECTION 5 Biological Sciences

Name of Course: Chemistry.
Number: 5.1
Lecturer: Gian Gavino PINNA Associate Professor in Faculty of Medicine, Acting Professor, Dental School.
Contact person (if different to the teacher): ---
e-mail: pinnagg@ssmain.uniss.it
Fax: +39 079 228120

An Introduction:
Chemistry is fundamental for the comprehension of basic biomedical disciplines, such as Molecular Biology, Biochemistry, Pathology, Pharmacology etc. For this reason it represents one of the first subjects in the Curriculum.

Primary Aims:
The Student should learn a scientific approach and become aware of his potential. The comprehension of the general principles of Chemistry is invaluable towards this objective.

6-10 Main objectives:
i) Knowledge of the organization of Atoms;
ii) Chemical bonds and formulae of Bases, Acids and Salts:
iii) Chemical equilibrium and solutions, the meaning of pH, preparation of solutions, pKa and the function of Buffers in the Human Organism:
iv) The classification of organic molecules and identification of functional groups in biomolecules:
v) The structure of carbohydrates, lipids, proteins and nucleic acids:
vi) Principles of biomolecular interaction.

Hours in the curriculum:
Lectures and Seminaries: 60 Hrs.
Examination in itinere: 8 Hrs.
Final Examination: 10 Hrs.
Total: 78 Hrs.

Teaching/Learning Method:
Theoretical approach along with use of audio-visual or multimedia facilities.

Assessment Procedure:
Written and Oral Examinations.

Course Strongpoints:
Preclinical Curriculum gives Students a basic knowledge, this becoming more specific at the next Clinical phase. Students may use audio-visuals and multimedia and consult teaching personnel.

Course weaknesses:
Difficulty in motivating dental students to detailed study of topics not directly related to oral system.
The Course is shared by Dental and Medical Students.
Weakness of laboratory facilities for practical work.

Innovations and best practices:
Newly introduced use of audio-visuals and multimedia; i.e. interactive chemistry CD-ROM

Plans for future changes:
The planned recruitment of a Lecturer for the Dental Faculty for the next academic year.
Name of course     Medical  Physics
Number    5.2
Lecturer      Aurelio Cappozzo, Full Professor, Faculty of Medicine
Acting Professor, School of Dentistry.

Contact person
(if different to the teacher): ---
e-mail     cappozzo@ssmain.uniss.it
'phone       079 - 228340   -   06 - 85300364   -   0348 - 6002215
Fax             079 - 228340   -   06 - 85833206

An Introduction
Students are taught the elements of statistics useful to them for inductive reasoning and for the analysis of experimental data. Operative knowledge of Geometry and Calculus is also stimulated.
Special emphasis is placed on Mechanics (both of solids and fluids) for the following reasons:
1) it forms an effective conceptual basis for further studies in Physics;
2) it is particularly effective when the aim is student formation (ideas versus facts);
3) it is a prerequisite for understanding many aspects of Human Physiology.

Stress is also placed on the study of Calorimetry and Thermodynamics. These, along with Mechanics train the student to reason in terms of Energy.
Electricity, elastic and electromagnetic waves, and optics are studied very little, if at all.

Primary aims:
1) Teaching the conceptual mechanisms that lead to the definition of physical quantities and to the formulation of physical laws.
2) To become acquainted with the deterministic and probabilistic models used to interpret experimental data and solve problems in the dental field.

Main objectives: (6 - 10)
1) To be able to set-up a mathematical problem using the tools of Algebra and analytical plane Geometry.
2) To be able to describe a random variable in the hypothesis of normal distribution.
3) To be able to evaluate association and dependence among variables through correlation analysis and regression.
4) Given a natural phenomenon, to be able to distinguish between the variables that can or must be measured from those that can or must be estimated using the above-mentioned mathematical models.
5) To be able to use the mathematical models in order to foresee, in quantitative terms, the evolution of a natural phenomenon.
6) To gain familiarity with Units of Measurement and the order of magnitude typical of the physical quantities used.
7) To have perception of the accuracy with which a given quantity may be measured or estimated.

Hours in the curriculum:
60 Hrs.

Teaching/ Learning method:
University lectures and small group tutoring.

Assessment Procedure:
Course objectives are reached if:
1. The student can solve numerical problems formulated so that the mathematical model to be used is not implicit in the relevant text, but, on the contrary, is the result of the student's thought. In addition, the student can identify the variables that, in real circumstances, should be measured and is able to associate realistic numerical values to them.
2. The student expresses himself in a proper and rigorous manner when describing a physical phenomenon.

Course Strongpoints
Priority is given to student formation rather than "information". 
Adoption of a pragmatic approach aimed at training the student to solve problems connected with practical Dentistry and keeping everything well-rooted in his mind.

Course weaknesses:
Many important subjects in Physics are not dealt with in the Course. However, these could be of importance to the dental student. Laboratory lectures are totally absent. The Course is shared by medical and dental students, therefore loosing its specificity

Innovations and best practices:
At present, the Course is mainly conventional. The only difference from courses in Physics given in other Faculties is the pragmatic approach and the great emphasis placed on practical "know-how".

**Plans for changes in the future:**
The use of specific teaching "modules" characterised by a homogeneous content. These may be assembled according to various guidelines, depending on specific student requirements, whether for Degree or Diploma Courses.

By doing this we would hope to reach six fundamental objectives:
- Teaching resources are put to best use avoiding time wasting repetitions.
- Courses may be tailored to suit the specific requirements of a particular group of students.
- To guarantee the high quality of tutoring offered to all students, whether on Degree or Diploma Courses.
- Given the specificity of the topics dealt with in each module, these may be thought by teachers highly competent in that specific area.
- To offer a wider range of topics within which the student may be allowed to make an elective choice.
- Credits may be better managed also transversally, that is among different educational pathways.
Name of course: General Biology (Biologia Generale)
Number: 5.3
Teacher: Francesco Pasquali, Professor of Medical Genetics, University of Insubria, Varese

Contact person
(if different to the teacher): ---
Email pasquali@pop.unipv.it
Fax ++38 0382 525030

An introduction:
General Biology is fundamental for dentistry students to approach the study of all basic biomedical disciplines such as Genetics, Molecular Biology, Biochemistry, Pathology. In particular principles of General and Human Genetics may be included in the Course of General Biology, and are necessary to further study.

Primary aims:
Goal of the Course is to give the students the methodological basis to approach the study of all biological phenomena in man, and, more in particular, of the normal and pathological genetic variability; this includes specifically the mechanisms of transmission and of expression of genetic information at cell and molecular level.

6-10 main objectives:
- Methods in formal genetics;
- Methods in molecular genetics;
- Methods in cytogenetics;
- Models of gene mutation;
- Models of chromosome mutation;
- Monogenic and multifactorial disorders in man;
- Chromosome aberrations in man.

Hours in the curriculum:
Lectures and seminars: 71 h.

Method of learning/teaching
Lectures and seminars.

Assessment methods
Oral examination.

Strengths

Weaknesses
The course is shared by medical and dental students. No laboratory facilities for practical work.

Innovations and best practices

Plans for future changes
The recruitment of a teacher for the dental curriculum should be considered.
Name of Course:    Biochemistry
Number       5.4
Lecturing Staff      Bruna TADOLINI, Full Professor, School of Dentistry
Dr. Gianfranco Pintus - Tutor
Contact person
(if different to the teacher): ---
e-mail        tadolini@ssmain.uniss.it
Fax       +39- 079- 228120

An Introduction:
Biochemistry is taught in the first term of the second year in the curriculum. It is intended to give students a broad, organic knowledge of general Biochemistry and molecular biology, in particular, of the biochemical processes which occur in the oral cavity. Its timing in the course is due to the fact that students are required to have knowledge of Chemistry, Physics and Biology before learning Biochemistry, and to the fact that this course is introductory to other courses such as Physiology, Pharmacology and Pathology.

Primary Aims:
The student should learn the molecular logic intrinsic to life, understand the molecular basis of a) normal and pathological processes in the body and, in particular, in the oral cavity; b) clinical chemistry, and c) preventive and curative pharmacology.

Main Objectives (6-10)
The student should learn the fundamental role exerted by catalysis on life
- the role of proteins and nucleic acids
- the processes involved in the biosynthesis of these molecules, and in their control
- the thermodynamic aspects of metabolism
- the metabolism of carbohydrates, lipids, aminoacids proteins, in particular of collagen, proteoglycans and glycoproteins
- the metabolism of calcium and phosphorus
- the function of hormones and their role in the control of metabolism, in particular, of calcium and phosphorus,
- the signal transduction pathways
- the composition, properties and biochemical aspects of saliva
- the phases and theories concerning the mineralization process

Hours in the curriculum:
Lectures     2 Hrs., five days a week on alternate weeks    (total approx. 70 Hrs.)
Computer classes for interactive individual work on selected main topics  Approx. 10 Hrs.
Individual study on notes and recommended textbooks (after each lecture)  Approx. 2-3 Hrs
Individual study period required to successfully pass end-of-term exam:   At least 200 Hrs.

Teaching/ Learning Method:
Biochemistry is taught in Lectures. During Lectures, students are encouraged to ask questions about the subject under discussion. In order to arouse students' interest, a special effort is made to associate the biochemical topics with everyday situations, with particular attention to aspects of dental biology, or the altered biochemistry in disease. During the Course, multiple -choice questionnaires are presented to students for self -evaluation purposes.

Assessment Methods:
End -of -term assessment consists of:
- written exercises, where students write down simple biochemical reactions
- oral examination to evaluate the student capability to integrate the acquired knowledge

Course strongpoints:
Pre clinical curriculum is aimed at giving good basic knowledge for the next clinical phase of training. Small classes allow for good student / lecturer interaction, covering student training requirements properly. Computer classes and self -evaluation are good for establishing a "feedback" control mechanism.

Weaknesses:
Difficulty in getting students to be interested in subjects which are not directly pertinent to their future career as Dentists.

Innovations and best practices:
At present a project is underway to get greater integration between pre-clinical and clinical courses and to improve multimedia facilities and CD-ROM programs.
Name of Course: Physiology
Number: 5.5
Lecturers: Eusebio TOLU, Full Professor, Faculty of Medicine
           Acting Professor, Dental School.
           Franca DERIU Acting researcher, Tutor

Contact person
(if different to the teacher): PODDA
e-mail: tolue@ssmain.uniss.it
Fax: +39-079-228156

An Introduction:
Physiology is a subject of basic importance. It is held over two semesters in the 2nd. year of the course, after the courses in Anatomy and Biochemistry.

Primary Aims:
The course in Physiology is divided over two semesters. The first one is for the study of the physiology of organs and systems, and the second, for the more specific study of the stomatognathic apparatus.

Main Objectives:
- fundamental knowledge of organs and systems
- functions of the stomatognathic area and its particularities
- composition of blood and its function
- physiology of nervous tissue
- somatic and visceral sensitivity
- mastication and the control of same
- physiology of the: circulatory, digestive, respiratory, renal emunctory and endocrinous systems.

Hours in the curriculum
80 Hrs
40 Hrs for Physiology of organs and systems
40 Hrs. study of the stomatognathic system.

Teaching/ Learning Method:
Lectures and Seminaries. Interactive work on topics chosen by both lecturer and student.
Practical exercises.

Assessment Method:
Oral test at the end of the first semester, this gives credits towards the final examination, which is always an oral exam at the end of the second semester. During the course, students have tests which do not count for final credits, but help for self-evaluation of levels reached.

Course strongpoints:
The study of physiology is important for student training. It builds up motivation, stimulates curiosity and helps in the acquisition of thinking from a clinical viewpoint, which carries on into future studies. It also teaches methodical behaviour, critical sense and constructive learning.

Course weaknesses:
Difficulty in getting the student to understand that he must study thoroughly all human physiology and not just that of interest to him as a dentist.

Innovations and best practices:
It is hoped that during the course of studies, the student will realise the global importance of the oral system with regard to all other body systems, and its capacity to modify or be modified by these.
SECTION 6 Preclinical Sciences

Name of Course: Anatomy (Normal Human and Stomatognathic apparatus)
Number: 6.1
Lecturing staff: Andrea MONTELLA, Full Professor, Faculty of Medicine
Acting Professor, School of Dentistry.
Pierluigi DELOGU, Appointed pre-clinical Professor.

Contact person (if different to the teacher): ---
e-mail: montella@ssmain.uniss.it
Fax: +39 - 079 - 228538

An Introduction:
The Course is made up of two parts: 1) General study of normal human anatomy at macroscopic and microscopic level, of the organs and systems making up the human body. 2) Oral anatomy: systemic, topographic, radiological and clinical anatomy of the head and neck with particularly detailed study of the Oral system.

Primary Aims:
To learn of the morphology of the human body along with its functioning

Main objectives: (6-10)
- Systemic anatomy of the human body.
- Development of the facial area, mouth and the teeth.
- Anatomy of the gingivo-dental arch.
- Dental anatomy in detail and dental patterns.
- Temporomandibular joint.
- Blood and lymph vascularization of the head and neck.
- Anatomy of the CNS.
- Cranial nerves.

Hours in the curriculum:
Lectures: 50 Hrs. + 40 laboratory Hrs (laboratory of osteology, laboratory of microscopic anatomy and laboratory work for dental modelling).

Learning/Teaching Method:
Lectures. Exercises in macroscopic anatomy (Osteology) and microscopic anatomy. Dental modelling.

Assessment Methods:
Tests during the Course.
Examination with microscope.
Final examination.

Course strongpoints:
Favourable course size.

Course weaknesses:
No cadaver dissection exercises.

Innovations and best practices:
Greater than ever use of multimedial facilities.

Plans for future changes:
An increase in teaching and learning aids.
Name of Course  Histology
Number  6.2.
Lecturer  Nicola ARENA associate Professor, Faculty of Medicine  Acting Professor, School of Dentistry.

Contact person  
(if different to the teacher): ---
e-mail  istomed@ssmain.uniss.it
Fax  +39 - 079 - 228523

An Introduction:
Students begin their Biology Course learning the technique of use of the microscope. Units of measurement along with the various types of microscopy, evolution in study and research techniques, including cell and organ cultures and immuno-histo-chemical structural labelling. After this first encounter with the microscope, the students visit the laboratories and see the instruments in everyday use. These include ocular microscopes, TEM, SEM, CO2 incubators and other equipment.

Primary aims:
The main objective is for the student to learn the fundamental biological functioning of cells and tissues. This implies a knowledge of intercellular transmission mechanisms with notions of the mechanisms of molecular biology and genetics, these being fundamental in Physiology and Pathology.

Main Objectives (6 - 10)
Knowledge of tissue formation mechanisms and cellular differentiation. Obviously, more attention is centred on organs and tissues important in Dentistry, i.e. mucous membranes, dental and bone tissue, blood, connective and nerve tissues.

Hours in the curriculum:
Lectures:  45 Hrs.
Small group tutoring and guided study  15 Hrs.
Practical exercises  10 Hrs.
(including laboratory exercises - decalcification and dental histo-staining.)

Teaching/ Learning Method:
Audio-visual facilities - colourgrams, slides and videos.

Assessment procedure:
Oral examinations over several periods. These take the form of an individual interview in the presence of other students who can intervene to clarify points of interest to them, or to ask for further details on a subject under discussion.

Course strongpoints:
The small number of students in the group is an extremely positive factor. Students may judge their Tutor not only from a professional point-of-view.

Course weaknesses:
The Course timetable is not well-fitted to the students' needs.

Innovations and Best practices:
An increase in practical training compensated by a decrease in Lecture sessions. For example, 18-20Hrs. of practical exercises and 35-37Hrs. for Lectures.

Plans for future changes:
The Histology Course would change to the 2nd. semester, and be preceded by the Chemistry and General Biology courses.
SECTION 7 Paraclinical Sciences

Name of Course: Dental Materials
Number: 7.1
Lecturer: Edoardo BALDONI Associate Professor, School of Dentistry

Contact person (if different to the teacher): ---
e-mail profbald@tin.it
Fax. +39-079-228541

An Introduction:
Materials and instruments are very important in Dentistry, much more so than in many other medical branches. This will continue well into the future. This subject is the first of those regarding dentistry alone, in the curriculum, having a part devoted to basic dental mechanics.

Main Objectives: (6-10)
Students should:
- acquire a knowledge of physical and chemical properties of dental materials
- understand market technology of dental materials and instruments
- learn the rudiments about the clinical use of dental materials
- understand material interaction
- understand dental material and human body interaction
- learn a capacity to judge dental material performance on review in literature

CURRICULUM TIMETABLE:
Total curriculum: 80 Hrs. as follows:
- lectures 50 Hrs.
- laboratory practical 8 Hrs.
- seminaries 4 Hrs.
- final examination 10 Hrs.

Teaching / Learning Method
Lectures with use of multimedial and audio-visual facilities
Textbook, lecture notes and scientific review study:

Assessment Method:
Oral examination at the end of course to judge the degree of student preparation on all matters taught regarding dental materials, basic principles and logical links.

Course strongpoints:
- imparts a knowledge of the basic principles of dental materials
- introductory knowledge of dental instruments, dental devices, dental appliances.
- keeps up-to-date with lectures and information.

Weaknesses:
- little time for practical laboratory demonstrations

Innovations and best practices:
- shorter and more frequent lectures
- further development of arguments after discussion of problem-solving techniques.
Name of Course: Pharmacology. (Farmacologia)  
Number: 7.2  
Lecturer:  Guglielmo DE NATALE, Full Professor, Faculty of Medicine  
Acting Professor, School of Dentistry.  

Contact person  
(if different to the teacher): --- PROF. EGIDIO MIELE.  
e-mail pharmaco@ssmain.uniss.it  
Fax. #39-079-228525

An Introduction:  
The course is 3rd. year. It is introductory to Physiology, General Pathology, Microbiology and Biochemistry.

Primary Aims:  
Use of pharmaceuticals for diagnosis and therapy, not only in the dental field.

Main Objectives (6-10)  
To bring students to know thoroughly about general pharmacology in all its branches (pharmacokinetics, pharmacodynamics, pharmacotherapy, toxicity and interaction with other substances).  
Specialized pharmacology, (certain groups of drugs and their individual properties). Therapeutic use of drugs.

Hours in the curriculum  
As necessary for study programs: 25-30 Hrs.

Teaching / Learning Method:  
It is practically impossible to study specialized pharmacology in great depth, due to the vastity of the subject, in constant evolution, and the length of time available on the course. It is therefore necessary to teach the student limited groups of drugs during the lectures (those most frequently met with) using a scale of importance when choosing between them, according to their various properties The student must study the other groups during private study periods.

Assessment Methods:  
Oral examination to evaluate the study level by discussing the characteristics of drugs and their precise use, whether taken in groups or given to patients already on other therapies for not necessarily dental pathologies.

Course strongpoints:  
Students learn the correct use of pharmaceuticals.

Weaknesses:  
Insufficient time to teach the entire subject in lesson-time because students are following other courses.

Innovations and best practices:  
Breaking-up of the pharmacology course with seminars organized by the students outside the official course curriculum timetable.  
Organization of a full-immersion course, five days a week without interruption until the course timetable has been completed.

Plans for future changes:  
Take into consideration once more the possibility of first obtaining a degree in Medicine and a subsequent specialization in Dentistry.
Name of Course     Microbiology
Number             7.3
Lecturer           Salvatore RUBINO, Associate Professor, Faculty of Medicine
                   Acting Professor, School of Dentistry.

Contact person
(if different to the teacher): ---
e-mail                 rubino@ssmain.uniss.it
Fax                  +39-079-212345

An Introduction:
Basic course of medical microbiology comprises: general microbiology, bacteriology, virology, mycology, parasitology, interest towards dental diseases.

Primary Aims:
Understanding of biology, and mechanisms of pathogenicity in microrganisms and the interaction between microrganisms and host cells.

Main Objectives: (6-10)
- description of morphology and pathogenesis of bacteria
- interaction antibiotic - bacteria
- genetics of microrganisms and relationship with antibiotic resistance
- how to cultivate bacteria in the laboratory
- how specific bacteria can be the cause of oral disease, i.e. caries, gingivitis, periodontal disease etc.
- description of morphology and pathogenesis of viruses

Hours in the curriculum
Total 45 Hrs.
Lectures 40 Hrs.
Small group laboratory work 5 Hrs.

Teaching / Learning Method:
Lectures
Laboratory experiments
Training in basic bacteriological skills.

Assessment Methods:

Course strongpoints:
The students make up a small group.

Weaknesses:
Insufficient personnel for practical work.

Innovations and best practices:
During laboratory course, students learn techniques to process clinical samples and do small genetic experiments on bacteria.

Plans for future changes:
More laboratory work linked with dental practice.
Name of Course  General Pathology
Number  7.4
Lecturer  Maria Maddalena SIMILE, Associate Professor, Dental School.

Contact person
(if different to the teacher): ---
e-mail  simile@ssmain.uniss.it
Fax  +39-079-228305

An Introduction:
This is an independent discipline taught during the 2nd year. It is made up of formal lectures and practical exercises.

Primary aims:
Training in concepts of normality and pathology. The process and states of disease and sickness

Main Objectives (6-10)
The student should:
- know the physical, chemical and biological causes of damage to tissues.
- be conscious of the consequences of this damage, how to heal or repair. The causes leading to chronic inflammation or neoplasia
- understand the concept of pre-malignancy, benign and malignant tumours.
- understand the molecular mechanisms in tumour growth, and the biology of tumoral cells.
- learn the pathology of metabolic diseases, especially diabetes.
- understand blood circulatory disorders along with related diseases. (thrombosis, embolism, ischaemia.)

Hours in the curriculum  60 Hrs

Teaching / Learning Methods:
Lectures
Practical work.

Assessment Method:
Oral examination of work covered in the program.

Course strongpoints:
Students are given an adequate basic knowledge of subjects treated, giving a good biomedical background.

Weaknesses:
Students are not motivated by the study of a subject not always directly connected with dentistry.

Innovations and best practices:
Helping students learn a new "university" method of studying, taking into account their previous High School methods.

Plans for Future Changes:
Better integration of pre-clinical studies with clinical.
Name of Course: Health Statistics.
Number: 7.5
Lecturer: Paolo CASTIGLIA, Associate Professor of Hygiene, Dental School. Acting professor.

Contact person
(if different to the teacher): ---
e-mail: castigli@ssmain.uniss.it
Fax: +39-079-228032

An Introduction:
The Course is held in the 4th year. It requires mathematics algebraic calculation knowledge

Primary Aims:
To teach:
- Organisation and summarising of data.
- On the basis of data gathered in the field, the capability to calculate large masses of data.

Main Objectives: (6-10)
Data space and time measurement.
Display of frequency in tables and on graphs.
Calculation of statistics in the above data.
Use of Bayes' theorem to calculate probability, and for the purpose of diagnosis.
Estimation of the likely distribution of random variables.
Execution of common tests in statistics to analyse sample differences.
Judgement of events in contingency tables.
Simple linear regression and relationship models.

CURRICULUM DURATION:
Lectures: 20 Hrs.
Training activity: 10 hrs.

Teaching / Learning Method:
Practical approach to problems in learning.

Assessment method:
Written and oral examinations.

Course strongpoint:
Low student numbers, consequently better tutoring.

Weaknesses:
Lack of Laboratory for Informatics.

Innovations and best practices:
Computer simulation classes to be held in the Department of Hygiene.

Plans for future changes:
None, if the Informatics lab becomes available.
SECTION 8 Human Diseases

Name of Course: General Medicine.

Number: 8.1

Lecturing staff: Andrea SATTA, Full Professor, School of Dentistry;
Alessandro CIGNI, Tutor and Postgraduate.

Contact person
(if different to the teacher):
e-mail: amesatta@ssmain.uniss.it
Fax: +39-079-216282

An Introduction:
The course runs in the 1st. semester of the 3rd. year. Theory lectures are held for one hour, three times per week to teach the principle illnesses, methods of carrying out clinical examinations and to compile clinical records.

Practical lessons, one hour per week, comprise the actual examination next to the patient's bed, and a correct diagnosis of the illness.

Primary Aims:
To give practical training to the dentist in order to make him capable of resolving any general emergency he might meet with later on. To teach the relationship between oral and systemic diseases, and how to correctly use pharmacotherapy.

Main Objectives:
The student must be able to:
- foresee, recognize and treat acute conditions met up with in new patients, or those after dental treatment.
- recognize other possible pathologies present when examining a patient, and to send the patient for further consultation.
- identify relationship between oral and systemic diseases.
- recognize possible cross-therapy interference between oral and systemic conditions.

Hours in the curriculum
Lectures: 40 Hrs.
Practical: 20 Hrs.

Teaching / Learning Method:
The first 40 mins. of the 1-hour lecture are to explain definition, cause, symptoms and treatment in General Medicine. The remaining time goes on questions and solving uncertainties. Slides, films etc. are used in the latter part of lectures. The practical part consists in following a complete clinical examination, repeating it in the presence of a tutor, putting data into the clinical record and going over this later with the tutor.

Assessment Method:
The student has informal tests during the course of lectures, and a formal oral examination at the end of the Course.

Course strongpoints:
The Course is run by a medical consultant with normal access to hospital wards, therefore students are trained in the wards by the chief lecturer and other tutors.

Weaknesses:
Basic training of students is not focalized on General Medicine, therefore the time they spend studying, and their general interest for the topic is not great. Not enough time is devoted to practical work.

Innovations and best practices:
Access to the hospital wards, and discussion of cases between Dental and Medical students.

Plans for future changes:
Computerizing of outlines discussed in lectures, to be used for individual study. Personal evaluation tests. Classrooms on the ward area for discussion.
NAME OF COURSE:  General Surgery.
NUMBER:  8.2
LECTURERS:  Antonio M. SCANU,  
Researcher, Faculty of Medicine
Acting Professor, School of Dentistry.
Dr. Giorgio GINESU,
Tutor and post-graduate student.

Contact person
(if different to the teacher):
e-mail:  ascanumd@tin.it
ascanumd@ssmain.uniss.it
FAX  +39-079-228394

INTRODUCTION:
The course is held in the 2nd. semester of the 3rd year and is divided in two parts: the first covers general topics, such as shock, and the main clinical and surgical aspect of: acute and chronic abdominal pain, surgical jaundice, limb ischaemia, thoracic pain of gastroenteric origin, blocked intestine; the second, which is more specific, covers different methods of diagnosis and therapy of most important surgical disease.
The course involves both formal lectures and on patient practice under the supervision of a tutor.

PRIMARY AIMS:
- Clinical manifestation and diagnosis of most important surgical disease.
- Main suture techniques + medication and treatment of surgical wounds.

MAIN OBJECTIVES:
- learning and practising a physical examination of the neck, chest, abdomen, vascular system.
- guidelines for differential diagnosis in main surgical disease.
- medication and treatment of surgical wounds.

HOURS IN THE CURRICULUM
- Lectures  40 Hrs
- In the hospital practice  20 Hrs

TEACHING / LEARNING METHODS:
- Interactive (Problem Based Learning) and formal lectures, practice on patients. Pre-course-quizzes and during the course tests.

ASSESSMENT METHODS:
- Oral examination at the end of the course, considering credits gained during the course.

COURSE STRENGTH:
- direct in hospital practice
- analysis of paradigmatic clinical cases.
- use of audio-visual facilities.

COURSE WEAKNESSES:
- No computers available for private purposes.

INNOVATIONS AND BEST PRACTICES:
- Possibility to attend most common surgical operations

FUTURE PLANS:
- greater participation of students in clinical practice
- on patients examination as part of the final exam.
Name of Course:     Anaesthesiology. (General and Dental )
Number:     8.3
Lecturer:     Maria MULAS, Researcher, Faculty of Medicine, Acting Professor, School of Dentistry.

Contact person (if different to the teacher):     Antonio M. Scanu

E-mail:     merysan@tiscalinet.it
Fax.     +39-079-210585

An introduction:
The Course is held in the 2nd. semester of the 3rd. year, before the beginning of the practical course. The course covers the principles of general and local anaesthesia and sedation, drugs used, and techniques of anaesthesia in Dentistry, control of pain, cardiopulmonary resuscitation and management of emergencies in dental practice.

Primary aims
Learning and practicing local dental anaesthesia and managing all problems related to its use (techniques and drugs used). Learning the theoretical basis, and practicing cardio-pulmonary resuscitation (Basic Life Support).

Main objectives
- Recognizing and managing emergencies
- Knowledge of vigil sedation
- Risk in anaesthesia
- Choice of method
- Perioperative monitoring
- Pain control

Hours in the curriculum
- Lectures: 30 Hrs.
- Practical lessons on patients and on manikins: As necessary

Teaching /Learning method:
- Lectures, practice on manikins (BLS), guided practice on patient.

Assessment method:
- Verifications during the course; final oral examination and on manikins practice.

Course strongpoints:
- Promptly recognizing and resuscitating of a patient with cardio-respiratory arrest.

Weaknesses:
- Only lectures without practice on local anaesthesia.
- No possibility to practicing in a maxillofacial department.

Innovations and best practices:
- Possibility to attend most of the common anaesthesiologic and monitoring techniques
- Practicing on patient vein punctures and airway control

Plans for future changes:
Practical training in advanced cardiopulmonary life support - ACLS
More time for training in local anaesthesia on manikin practice.
Name of Course: Neurology. (Neurologia.)
Number: 8.4
Lecturer: Virgilio AGNETTI, Associate Professor, Faculty of Medicine. Acting Professor, Dental School.

Contact person
(if different to the teacher):
e-mail: clineuro@ssmain.uniss.it
Phone: +39-079-228231 -228235
Fax: +39-079-228423

An Introduction:
The course is held in the 1st. semester of the 4th. year. It deals with:
- anatomy and physiology of the central nervous system (CNS), peripheral nervous system (PNS), and the musculo skeletal system (MSS)
- pathogenic mechanisms, clinical picture and diagnosis of clinical disorders.

Primary Aims:
- comprehensive knowledge of the CNS, PNS, and MSS, in that order.
- most frequent neurological disorders met with in clinical practice, and whether of oral or internal origin.

Main Objectives:
- structure of the nervous system
- examination in Neurology
- cranial nerves: anatomy and pathology
- headache, migraine, neuralgia
- higher cognitive functions
- demyelinating diseases
- cerebrovascular disease
- epilepsy and convulsive disorders
- principle neuromuscular disorders.

Hours in the curriculum:
- Lectures: 10 Hrs.
- Tutorial groups: Problem based learning, (PBL) 28 Hrs

Teaching / Learning Method:
- Interactive lectures and tutorial groups working through PBL.

Assessment Methods:
- Tests during the Course. Final oral examination.

Strongpoints:
- Students are closely tutored.

Weaknesses:
- The students find little time for study periods during the curriculum because of full days of lectures and practical work.
- Lectures are set to a traditional academic pattern. PBL tutorial groups are penalized as they require a great deal of time for sessions.

Innovation and best practices:
- More time for patient examination.
- More flexibility regarding lecture timetables, to be agreed upon between tutors.

Plans for future changes:
- A more practical approach towards problems regarding Dentistry.
Name of Course: Dermatology
Number: 8.5
Lecturer: Dr. Pasquale ENA, Researcher, Faculty of Medicine.
Acting Professor, School of Dentistry.

Contact person
(if different to the teacher): ---
e-mail dermos@ssmain.uniss.it
Fax. +39-079-228500

An Introduction:
The course in Dermatology is in the 1st. semester of the 3rd. year. It comprises lectures and practical work. Practical lessons are supervised by the Lecturer.
The course teaches the lesions present in the principle skin diseases, especially those of the oral mucous membranes with clinical relevance. Part of the program deals with guidelines in clinical and histopathological diagnosis in Dermatology. Another part treats etiopathogenesis, prognosis, therapy and prophylaxis for the main oral conditions and those of the lips. (mouth aphthae, blistering, tumours, viral diseases, outside agent-caused diseases or those caused chemically.) Students learn ideas and technical elements about cytology, useful for rapid diagnosis of skin and mucous membrane diseases.

Primary Aims:
The main aim is to teach students the quick diagnosis and therapy of diseases of the oral mucous membranes.

Main Objectives (6-10)
Elementary lesions: their morphology and micro/macroscopic correlation between clinical and diagnostic.
Infectious diseases: Diagnosis and etiopathogenesis.
Differentiation of diagnosis of aphthae lesions and pre-tumoral lesions
Bullous conditions: cytological diagnosis and therapy.
Stomatitis in systemic illnesses (diabetes, HIV, drugs) Etiopathogenesis and therapy.

Hours in the curriculum
Lectures: 20 Hrs,
Practical work and examination time: 10 Hrs.

Teaching/Learning Method:
Slides and lucids. Textbooks Illustrations. Examination of patients with skin disease chosen from those present in the Clinic.

Assessment Methods:
Quiz tests during the course. Oral exam at end.

Course strongpoints:
Even if structures are most inadequate, there is an excellent rapport between tutor and students, due to the fact there are few students on the course.

Weaknesses:
No previous training of students on the subject prior to the course.
Students skip lectures.
Insufficient space for clinical study and a correct approach towards patients.
Absence of assistant tutors.

Innovations and best practices:
An adequate preparation of students, prior to the course, in Path. Anatomy and General Immunology would resolve many problems. Audio-visual facilities would also help greatly.
Name of course: E.N.T.
Number: 8.6
Lecturer: Francesco Meloni, associate Professor, Faculty of Medicine. Acting Professor, Dental School
Contact person (if different to the teacher):
e-mail: orluiss@tiscalinet.it
Fax.

Introduction
The E.N.T. course is held during the 4th year, and deals with the general principles of Anatomy and Physiology, clinical features, diagnostic procedures and clinical approach for the treatment of main (traumatic, inflammatory, tumoral) head and neck pathologies, also including sinus, oro-pharyngeal, and maxillo-facial district. Special attention is payed to diseases of common interest between E.N.T. and dental specialists. Diagnosis and therapy of tumors will be illustrated very carefully, stressing the concept of eradication of the neoplasm with the best preservation of organ function, taking in account the quality of life and the aesthetic results. The ratio cost/benefit of treatment is also discussed.

Primary aims
- Diagnosis and classification of main ENT diseases.
- Acquisition of basic medical and surgical procedures

Main Objectives
- Assessment of symptoms either in emergency or in election
- Differential diagnosis
- Relationships between ENT and oral pathologies
- Basic principles of medical treatment
- Basic principles of surgical procedures
- Diagnostic and operative criteria for tumors of head and neck.
- Concepts of conservative, demolitive and reconstructive surgery.
- Aesthetic and functional results.
- Ethical aspects of treatment.
- Prevention and diagnosis of primitive and secondary tumors of head and neck.
- Preventive treatment of oral cavity before radiotherapy.

Hours in the curriculum:
Lectures: 30 hs.
Practical training: 20 hs.

Teaching/learning method:
Multimedial presentation, lectures, videos, slides projections, case discussions.

Assessment method:
Oral examination, evaluation of training period.

Course strongpoints:
Attendance in the wards and theatres.

Weaknesses:
Difficulty in gaining the necessary surgical skill for the lack of cadaver and specimens dissection.

Innovations and best practices:
More frequent cadaver dissections and/or specimens is needed; due to the development of scientific knowledge, the acquisition of theoretical and practical concepts will be crucial in reaching either clinical targets or new diagnostic strategies. Final examination will take in special account the evaluation of tutors about the training period. Oral evaluation will verify the knowledges and skills acquired.
Name of Course: Paediatrics.
Number: 8.7
Lecturer: Domenico GALLISAI, Associate Professor, Faculty of Medicine; Acting Professor, Dental School.

Contact person
(if different to the teacher):
e-mail: gallisai@ssmain.uniss.it
Fax +39079-228499

An Introduction:
A 4th. year course. Starting from birth, a panoramic image is given of the child ( including feeding patterns ) through childhood and up to adolescence, with information on the main and most frequent child pathologies regarding the metabolism of calcium/ phosphorus, coagulation, anaemia, intestinal disturbances and paediatric oncology.

Primary Aims:
To supply the necessary information for the individuation of acute and chronic pathologies in the developing patient, and suggest therapy.

Main Objectives: ( 6-10 )
Students must above all be able to recognize and treat paediatric conditions relating to dentistry, and conditions where there is difficulty in coagulation.

Hours in the curriculum:
30 Hrs.

Teaching / Learning Method:
Lectures plus problem based learning.

Assessment Method:
Oral examination in two parts: the first to judge general level of preparation, the second, to judge the capacity to solve problems. Credits are gained in this examination towards the exam in Paedodontics.

Course strongpoints:
The course is directed by an Associate Professor of Paediatrics who is Head of a 30-bed ward covering all paediatric pathologies, and a day-hospital for the followup treatment of paediatric haemo-oncology patients. Often the patients are examined and treated by the dental students, under the supervision of an experienced dentist.

Weaknesses:
The course final examination is not mandatory, therefore students tend not to place excessive importance on the course itself.

Innovations and best practices:
More elasticity with timetable in order to examine cases of particular interest when they come up.

Plans for future changes:
Programming ward experience.
SECTION 9 Orthodontic and Child dental health

Name of Course: Orthodontics.
Number 9.1
Lecturers: Mario BOSSU, Researcher, Acting Professor
Gabriela LORIGA, Appointed Professor, dept. of Dental Hygiene
Tutor. Part-time professor, LUGLIE,
Dr. Guglielmo CAMPUS, Researcher, Tutor.
Dr. Aurea LUMBAU, Researcher, Tutor.

Contact person (if different to the teacher): e-mail:
Fax. +39-079-228541

An Introduction:
The course is held over two six month periods, respectively in the 4th. and 5th. years of the curriculum. The first year prepares students for the second year of the course. It consists of lectures only. The second year training is devoted to Clinic, seminaries and discussion of clinical cases.

Primary Aims:
Students in the 4th. year will be expected to formulate a correct diagnosis of malocclusion by checking medical history, clinical data and by practical observation.
5th. year students will improve clinical experience and revise the previous year's theory. They acquire the basic principles of Orthodontics, and learn in depth about all dental appliances.

Main Objectives:
- anatomy applied to the study of teleradiographical anatomy. This is essential for ortho-diagnosis.
- knowledge of dental eruption ages, arches, shape, including its relation to type of face, normal occlusions.
- diagnosis in growing child - occlusion and bad functioning - genetic and environmental factors as cause of problems - extra and intraoral clinical evaluation - interpretation of Enlow's counterpart trace method for study of malocclusion development dynamics.
- adult diagnosis - occlusion and ill-function - extra and intraoral examination - Interpretation of Tweed's cephalometric trace for study of malocclusion. - observation of flesh tissue and aesthetic values.
- histology and biomechanics of dental displacement
- knowledge of minor mouth movement and application of common remedies for space control in mixed dentition
- compilation of record folder, containing photographs for diagnostic purposes and plaster impressions for laboratory use in squaring.
- bonding and debonding
- discussion of orthodontic treatment ( all types ), and cases, on the ward .
- knowledge of principle theories and present techniques through study of international literature.

CURRICULUM TIMETABLE:
Lectures and seminars: 4th. year 50 Hrs. 5th. year 50 Hrs.
Laboratory and pre-clinical training: 4th. year 30 Hrs.
Clinical training: 5th.year 250 Hrs.

Teaching / Learning Method:
Lectures followed by practical training in the 4th. year. Training in groups of five students per tutor.
Data gathering procedure analysed during seminaries to give topics for diagnosis and discussion.
The 5th.year course includes seminaries held by the tutor to discuss clinical cases, ward training with tutors, and clinical practice.

Assessment Method:
At the end of the 4th. year, after the lectures, there is a preliminary oral exam. This must be passed successfully in order to be admitted to the 5th. year ward course.
In the 5th. year, the student is required to get ward attendance registered in his official Student Diary. This contains the ward procedures carried out personally by the student, and their positive assessment. At the end of the 5th. year, at the final examination, the student must present the Diary along with the complete reports of two cases. The first one should contain all aspects, in a very complete sense, regarding the case in question, starting from a clinical standpoint and going on up to the therapy chosen. The second should contain the case medical history, and results obtained after following the therapy program. A new case is presented to the student for clinical evaluation and choice of therapy.

Course strong points:
With an average of only ten students in each year of the course, personal guidance is excellent. Tutors are available at fixed times for consultation. In the 5th. year, each student is personally guided by a Tutor.

Weaknesses:
Insufficient material for practical training - ward practice timetable does not allow cases to be followed from beginning to end.

Innovations and best practices:
Multimedial lectures are in preparation. In clinical training, students will have to judge results of therapies applied, in order to obtain a global opinion on the results of orthodontic intervention.

Plans for future changes:
New x-ray-scopes for practical training in phantom lab. New software for ten personal computers at our disposal to allow for gathering of orthodontic data, cephalometric traces and multimedial lectures.
Name of Course: Paediatric Dentistry
Number: 9.2
Lecturing staff: Giuliano FALCOLINI Full Professor and Chairman of School of Dentistry
Dr. Guglielmo CAMPUS, Researcher, Tutor.
Dr. Aurea LUMBAU, Researcher, Tutor.
Dr. Giovanni SPANO, Postgraduate student, Tutor.

Contact person
(if different to the teacher):.
e-mail: dental@ssmain.uniss.it
Fax +39-079-228541

An Introduction:
The course in Paediatric Dentistry is held in the 1st. semester of the 4th. year, after Restorative Dentistry (2nd., 3rd., 4th. years) and before Orthodontics (4th. and 5th. years). Clinical training takes place in the department, with 9 dental chairs. There are four sessions of three hours per week over a period of six months, adding up to a total of about 250 hrs.

Primary Aims:
- theoretical knowledge.
- practical competence.
- clinical experience, for the prevention, diagnosis and treatment of paediatric dental problems.

Main Objectives: (6-10)
Knowledge:
- growth and development of the human body and oral cavity.
- oral medicine and pathology in children, dental decay, dental anomalies, periodontology, malocclusion, relationship between oral symptoms and possible pathologies.
- child psychology, behaviour management.
- correct prevention of oral disease, and use of motivation techniques. Prescription and use of drugs and prevention techniques.
- Community dentistry.
- clinical experience in: caries and pulp treatment on deciduous and young permanent teeth.
- clinical experience in orthodontic prevention and interception.
- dental traumatology
- + clinical experience of local anaesthesia for the child. Vigil sedation and general anaesthesia.
- paediatric oral surgery. Clinical experience in deciduous tooth extraction.

CURRICULUM TIMETABLE:
Lectures: 30 Hrs.
Clinical seminars: 10 Hrs.
Paper review seminars: 10 Hrs.
Pre-clinical training. 250 Hrs.
Clinical training. 250 Hrs., registered in students' official diary, signed by tutors (comprising personal treatment, 36; prevention, 12; restorative treatment, 2; extraction and trauma, 2.)

Learning / Teaching Method:
- 30 lectures with active student participation: students study details of reported cases, and these are discussed in further seminars.
- 10 seminars. Discussion of a case report. Diagnosis and treatment.
- discussion of paper reviews from international journals.
- pre-clinical training on phantoms, under supervision.
- clinical training under tutor supervision
- personal study, with textbooks, lecture notes, scientific journals.
- pre-clinical training on phantoms, with tutor present.
- clinical training under supervision, and further study.

Assessment Methods:
- Before clinical training: i) oral exam on theory, and ii) evaluation of progress on phantom (deciduous teeth)
- during clinical training: i) tests during course (36 personal treatments, supervised and certified by
Strengths:
Timing: The 1st. semester in the 4th. year allows for theoretical and clinical practice during the entire year, and leaves sufficient time for personal study during the following year. Final examination covers the topic fully, and encourages the student to prepare properly for it. Prolonged clinical training (250 Hrs.) with personal experience makes up a fundamental part of the curriculum, along with Restorative Dentistry and Oral Surgery.

Weaknesses:
The timing of theory lectures in the 1st. semester of the 4th. year does not facilitate students with their contemporary clinical training.

Innovations and best practices:
- personal complete case report
- final examination covering absolutely all topics
- PBL teaching method.
- Lectures and pre-clinical training transferred to the 3rd. year in order to prepare for clinical training in the 4th. year.
- Training on Internet websites.

Plans for future changes.
None.
SECTION 10 Public dental health and prevention

Name of Course:     Public Health and Prevention.  
(Preventive and Social Dentistry with Epidemiology )
Number:     10.1
Lecturers:    Paolo G. CASTIGLIA, Associate Professor, Dental School
Alessandra PALMIERI, Researcher, Faculty of Medicine, Tutor.

Contact person  
(if different to the teacher):  
e-mail:                                         castigli@ssmain.uniss.it
Fax.                                              # 39-079-228032

An Introduction:  
The course is held during the 4th. year at dental school, and it comprises preventive issues as essential elements of the course. Social, community, ethical and economical aspects are also considered. Epidemiology represents the basis on which to build up other elements. Its methods lead the way to developing strategies and programs for prevention. Health promotion and various approaches toward Public Health are also treated.

Primary aims:  
- to teach the correct approach with regard to biomedical problems
- to provide a broad knowledge of different diseases, what causes them and on health in general.
- to use the correct method for effective prevention, safety and therapy.

Main Objectives:  (6-10)  
- study of the elements connecting the environment with human health
- study of principle economic elements connected with health and disease
- provision of detailed epidemiological information regarding infectious and non-infectious diseases
- prophylaxis and immunoprophylaxis (vaccines and vaccination)
- correct judgement of biomedical situations
- to have prevention as the main goal in the public health system.
- teaching methodical techniques to students for the safe organization of their profession in the future.

CURRICULUM DURATION:  
Lectures:                                30 Hrs.
Training activities:               10 Hrs.

Teaching / Learning Method:  
Learning with a practical approach to problems. Consultation of literature and websites to stress more important aspects of course.

Assessment Method:  
Oral examination

Course strongpoints:  
Close tutoring due to small classes

Weaknesses:  
Insufficient time devoted to the topic.

Innovations and best practices:  
Computer simulation in Epidemiology would be useful

Plans for future changes:  
None planned.
### SECTION 11 Restorative Dentistry

**Name of Course:** Restorative Dentistry. (Odontoiatria Conservatrice)

**Number:** 11.1

**Lecturing staff:**
- Dr. Pierfranca LUGLIE, Researcher. Acting Professor.
- Dr. E. MILIA (Clinical Professor)
- Dr. Guglielmo CAMPUS, Researcher, Pre-clinical Tutor.
- Dr. Aurea LUMBAU, Researcher, Pre-clinical Tutor.
- Dr. G. PORQUEDDU (Tutor)

**Contact person (if different to the teacher):**

- **e-mail:** pfluglie@ssmain.uniss.it
- **Fax:** +39-079-228541

### An Introduction:
The Conservative Dentistry course is articulated in three parts: reconstructive, endodontic and practical clinic, respectively taught in the 2nd year, 2nd semester; 3rd year, 1st semester; 4th Year in turns. Staff are effectively occupied all through the year with lectures, pre-clinical training, clinical training with students on a shift system. Teaching is based on theoretical lectures and exercises in the laboratory with manikins and clinical practice on patients.

### Teaching / Learning methods:
Lectures are integrated with pre-clinical training on phantom tissues during the 2nd. and 3rd. Years Clinical training develops during the 4th. year. Teaching by theory: Part of the triennium,(third, fourth and fifth years of course) with an aim to give students a clinical approach to their studies. They should be able to judge prophylaxis, diagnosis and therapy for the pathologies of hard tissue, pulp and periapex of dental elements in the human patient. Practice on manikins is used to teach the manual techniques of dentistry for prophylaxis and therapy., these being necessary in training for clinical training. Clinical training: Students are taught to work on patients, under the control of the teaching staff. They put into practice all they have learned in the classroom and laboratory. During this period, the student operates on patients in the presence of tutors. The tutor intervenes in case of difficulty or error, offering advice and practical help.

### Primary Aims:
The students must learn to make a correct diagnosis, prognosis and undertake correct therapy for all dental lesions and pathologies and to control dental pain.

### Main Objectives:
- **Restorative Dentistry:**
  - knowledge of caries- micro and macroscopic.
  - cavity preparation for amalgam, composite and relative instruments.
  - correct choice and application of dental filling materials
- **Endodontics:**
  - knowledge of the morphology and development of the endodontic areas- diagnosis and prognosis of endodontic pathologies.
  - materials and techniques used in root canal medication and filling. Also the instruments necessary for direct and indirect capping.

### CURRICULUM TIMETABLE:

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Practice</th>
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<tbody>
<tr>
<td>1st. Course</td>
<td>50 Hrs. theory</td>
<td>25 Hrs. practice on manikins.</td>
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<tr>
<td>2nd. Course</td>
<td>50 Hrs. theory</td>
<td>25 Hrs. practice on manikins.</td>
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<tr>
<td>3rd. Course</td>
<td>250 Hrs. clinical training and exercise integrated with 50 hrs. of seminars and discussion of cases.</td>
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</tbody>
</table>

### Assessment Procedure:
At the end of each of the first two courses, students have an oral examination or test, and a practical test on a manikin. They are expected to demonstrate what they have learned and their degree of manuality, using extracted teeth. The second test is a follow up of the first, and only after having successfully passed both of them can the student proceed to the next clinical phase, and have the compulsory hours of clinical training and exercise officially certified in the Student Diary.

The final exam includes reconsideration of the work done previously, and relative assessment of Clinical cases in student diaries, in order to judge the capacity of diagnosis and therapy undertaken by the student at the time. The student must be capable, using the correct terminology, to examine a patient from a conservative dentistry point of view and to plan a whole treatment.

Assessment criteria: Extreme precision is vital in notebooks, regarding treatment. However a capacity to correct previous imprecisions or written errors during the oral exam is counted. Capacity to justify the therapy chosen.
**Strengths**
Few students on the course, therefore a more personal touch is added to training. Time to thoroughly go over each patient's case with students, for either theory or practical.
Instruments for practical work belong partly to the Institute and partly to the students themselves (The Institute supplies speeds, manual instruments, burs and disposable articles.)

**Weaknesses:**
Out-of-date audio-visual equipment for theory lectures
Inadequate instruments for pre-clinical training along with extracted teeth not well adapted to the manikins. Impossibility to teach the correct position of the Chair from the beginning of classes in pre-clinical.
Clinical training with insufficient number of tutors.
Bad maintenance of clinical equipment and dental units, these being without speed maniples.

**Innovations and best practices**
Pre-clinical training: Acquisition of resin mouth models which can fit easily into manikins, to obtain better results in restorative, and a correct working posture. Full set of instruments for practice with manikins. Installation of a videocamera and monitor in the manikin lab to demonstrate dental techniques. Coordinated clinical training with one professor plus a tutor with a maximum ratio of 1:5 for students.

**Plans for future changes:**
New audio-visual material, and research through Internet to keep up-to-date. New generation restorative equipment.
Dental technical lab on hand for inlays.
Name of Course: Prosthodontics
Number: 11.2
Lecturers: Giacomo CHESSA, Researcher, Acting Professor. Vania LAI, Tutor, Postgraduate student. Girolamo STELLINO, Appointed Professor, School of Dental Hygiene

CONTACT PERSON: MIMMO STELLINO
e-mail gchessa@ssmain.uniss.it
Fax. +39-079-228541

Introduction:
Prosthodontics are taught in conjunction with gnathology during the course triennium, i.e. 3rd., 4th. and 5th, years. In the third year, students have lectures on gnathology and rehabilitation with fixed prosthesis. In the 4th. year, lectures take place concerning occlusal defects in partially edentulous patients, and their correction with partial removable dentures. In the 5th. year, students are taught how to make all types of prostheses. Students are also in the clinic for a total of 250 Hrs.

Primary Aims:
- Teaching the students to work independently, and giving them the qualification necessary to treat partially or totally edentulous patients in a satisfactory manner from a morphological aesthetic and functional viewpoint.

Main Objectives:
- recognition of reasons for presence of pain, malfunction or disease of the TMJ, and correct application of articulatory principles in prosthesis preparation.
- knowledge of all techniques, clinical and instrumental, necessary for correct prosthesis application.
- learning the phases from diagnosis to the fitting of dental prostheses.
- correct choice of materials when making dentures.

CURRICULUM TIMETABLE:
3rd. year: Lectures, 50 Hrs. Manikins, 20 Hrs.
4th. year: Lectures, 50 Hrs. Technical laboratory, 20 Hrs.
5th. year: Lectures, 50 Hrs. Clinical training, 250 Hrs.

Teaching / Learning Method:
Combination of theory and practical exercises on manikins and in the dental laboratory. Work in the Dental Clinic.

Assessment Methods:
Interview at the end of the 3rd. year. Tests during the course for pre-clinical and clinical topics. Final theory exam at the end of 5th. year.

Course strongpoints:
Possibility to check each student's progress as the course goes on. Constant exchange of opinions during the entire course.

Weaknesses:
Lack of a good technical laboratory where students could learn step-by-step from start to finish how to build dentures.
Not enough clinical staff.
Too little practice on manikins
Not enough practice on patients.

Innovations and best practices:
More work on manikins
Endodontic and prosthetic preparation of stump pivots.

Future Plans / Changes:
Implant prosthesis instruction.
SECTION 12 Periodontology

Name of course Periodontology
Number 12.1
Staff Bar Umberto, Appointed Professor in Dental School
Forteleoni Gian Pietro, Appointed Professor in Dental Hygienist School, Tutor
Contact person Forteleoni Gian Pietro
E-mail gianfort@tiscalinet.it
Fax +39 079 271842

Introduction
Two-years course, held in the 4th. and 5th. years of the curriculum. In the preliminary (4th) year, during lectures, a theoretical and practical program is organized to teach clinic and surgery for Periodontology; this after general revision of anatomy and physiology. In the 5th. year, students carry out extensive training on patients. Student must treat 36 patients before being admitted to sit the final examination.

Primary aims
Acquisition of a solid knowledge of Periodontology, diagnosis and therapy for all stages of periodontal disease. Elementary surgery.

Main objectives (6-10)
a) Correct approach towards patients
b) First examination, medical history and medical record compilation
c) Clinical and radiological diagnosis: patient treatment program
d) Preparation of dental chair or operating theatre - knowledge of instruments
e) Training on phantoms or animals tissue, for mucous - gingival and bone surgery
f) Suture materials and techniques
g) Result maintenance

Hours in the curriculum
- Lectures: 50 Hrs. per year
- Clinical training: 110 Hrs. (5 Hrs. per week for 22 week)

Methods of learning / teaching
- Lectures with slides and clinical demonstrations
- Training with phantoms and dental models
- Students perform elementary periodontal surgery under tutorial supervision

Assessment method
- Oral examination discussing program topics + case report

Strengths
- Small class size (10 students in each course year) allows for informal dialogue between tutor and students
- A world-famous Professor over the course, with great professional and teaching experience
- Mixed classes of Dental School and Dental Hygienist School students

Weakness
- Professor is not always available for teaching purposes, as he has other commitments
- Too little time devoted to clinical training
- No adequate operating theatre for periodontal surgery
- A few number of non-medical health operators
- Little clinical equipment and material for training purposes
- Periodontal prevention programs are usually executed by Dental Hygienist School students, and not dentists
- Curriculum timetable prevents total follow-up of patient therapy

Innovations
- Dental and Dental hygienist students attend the same classes in the periodontal department
- Clinical training for root planing in conjunction with Dental hygiene students
- Dental students attend the periodontal department for a day each week during semester
- Pre clinical practice on manikin and on pig mandible - Computerized RX
- Central sterilization bay for periodontal surgery

Plains for future change

SASSARI Visit Report August 2000.doc
- Periodontal care projects under student's responsibility, including scaling, root-planing, patient motivation, home hygiene
SECTION 13 Oral Surgery, Dental Radiology

Name of Course: Oral Surgery.
Number: 13.1
Lecturers:
Romano AMATO, Full professor, School of Dentistry, Acting Professor for Oral Surgery.
Dr Maria Rosaria LALLAI, Postgraduate student, Tutor.

Contact person
(if different to the teacher):
e-mail: dental@ssmain.uniss.it
Fax. +39-079-228541

An Introduction:
The course is over a two year period, in the 4th. and 5th. years of the curriculum. The introductory year teaches the theory of oral surgery regarding anatomy and surgical techniques. The second phase, in the 5th. year, covers:
- names and uses of surgical equipment
- practice of surgery on phantoms
- removal of mono and multi-root teeth

The final part of training includes a practice period on actual patients, plus the rest of theory. Students cannot sit the final examination without certified attendance records in their official Student Diary. At the end of the course, the students sit an oral examination.

Primary Aims:
Thorough preparation in theory and practice so that everyday oral surgery may be independently and confidently practised.

Main Objectives:
- clinical approach - organization of theatre - surgical instruments and sterilization.
- preparation of surgical field.
- correct execution of first surgical examination.
- clinical and radiological diagnosis of specific cases - therapy program.
- dialogue with patient - full understanding of consent form.
- techniques of local anaesthesia.
- surgical flaps - suture techniques and materials.
- tooth extraction techniques: - mono and multi-root, erupted, impacted, ankylosed teeth.
- apicectomy techniques. - retrograde obturation.
- mandibular and maxillary cystectomy and cystomy surgery.
- biopsy of suspect lesions and tissue, whether odontogenic or otherwise.
- pre-prosthetic and pre-orthodontic surgery - frenectomy, soft and hard tissue remodelling for pre-prosthetic treatment, impacted tooth surgery.
- post-operative complication control.

CUURICULUM TIMETABLE:
Lectures: 10 Hrs.
Seminars: 40 Hrs.
Practical (22 weeks) 250 Hrs.

Teaching / Learning method:
Lectures - Seminaries - Chair experience - Clinical operations under tutorial supervision.

Assessment Method:
Oral final examination. In order to be eligible to sit the final, students must have carried out at least 36 operations on patients, and had them signed and certified in their official Student Diary by the tutor. These have also to be signed and registered by the Tutor in the official Register, this as a guarantee of proficiency.

Strengths
Good practical experience, under supervision, in surgery.
Entire program under one roof - Dental School Clinic - Sassari University.
Collaboration with other Universities encouraged, and with other departments in Sassari University (Pathology - Clinical Surgery).
Weaknesses:
Sporadic presence of chief lecturer in the department - presence of assistants.
Insufficient instrument supply for student use.
Insufficient theatre nursing staff
Difficulty in obtaining good sterilisation due to bad location of theatre.
Only one tutor present during seminars.
Little pre-clinical practice on manikins

Innovations:
Pre-clinical practice on manikins to learn extraction of canines and wisdom teeth.
Students should sit an exam before being allowed to do practical work in the department.
Digital images in radiography.
Discussion time allowed with tutor before seminars or surgical operations to clear students' doubts, discuss previous experiences, bring necessities to light.
Discussion of cases reported in literature. Widening of knowledge on an international scale. Hints for experimental projects for students' final theses or for University research projects.
Better organisation in the Dental Clinic with the permanent employment of a specialised Dental Nurse and the setting-up of a centralised sterilisation room.

Plans for future changes:
Plans for day-hospital care programs for patients.
On-call anaesthetist always available for necessary cases.
Availability of operating theatre for operations in total anaesthesia.
Implantology in curriculum.
Name of Course: Radiology. (General and Dental)
Number: 13.2
Lecturer: Maurizio CONTI, Researcher, Faculty of Medicine.
Acting Professor, Dental School.

Contact person
(if different to the teacher):
e-mail: mconti@ssmain.uniss.it
Fax: +39-079-217088

An Introduction:
The course is held during the 2nd semester in the third year of the curriculum. It is made up of a cycle of lectures containing theoretical and practical demonstrations aimed at teaching the students for doing radiological diagnosis and planning correct therapeutic protocol.

Primary Aims:
Give essential but efficient training to students in radiology, radiobiology, radioprotection and radiotherapy of organs and systems. In particular, more specific and complete notions illustrating modern capabilities of Diagnostic Imaging to clearly delineate pathologic conditions of the stomatognathic apparatus, visceral cranium, paranasal sinuses, temporomandibular joint and salivary glands.

Main Objectives:
- Integration of general knowledge of radiobiology with more specific radioprotection topics concerning the management of radiological equipment in odontostomatology;
- Give notions about construction and operation principles of diagnostic imaging equipment: conventional radiology, echography, digital subtraction angiography, CT and MR;
- Give general knowledge about modality of image acquisition and management;
- Give essential about diagnostic imaging techniques and methods particularly dealing with radiological procedures in the odontostomatologic field;
- Illustrate normal and pathologic radiological signs in the different districts for reaching a correct diagnosis;
- Take care knowledge of diagnostic algorithm for correct and sequential employment of diagnostic procedure according to cost-benefit ratio;
- Mention about indication and results of radiotherapy in the treatment of odontostomatologic tumours.

Hours in the curriculum:
Lectures: 30 Hrs.
Theory and Demonstration: 10 Hrs.
TOTAL: 40 Hrs.

Teaching / Methods:
Lectures with slides concerning the principal subjects of the course.
Training in the radiological departments of our institution to apply theoretical knowledge to daily practice.

Assessment Methods:
Oral examination with questions for verifying student theoretical knowledge and capability in recognizing normal and/or pathological conditions as well as in formulating a correct diagnostic hypothesis.

Course strongpoints:
Wide availability and continuous advances in diagnostic imaging technology allow the student to improve the knowledge for a better evaluation of normal anatomy and pathologic conditions of the stomatognathic apparatus.

Weaknesses:
Vastness of arguments and high number of imaging techniques and methods do not allow a complete discussion of all normal and pathologic conditions.

Innovations and best practices:
Periodical multi-choice quiz tests for personal evaluation of the knowledge level achieved.

Plans for future changes:
Theoretical/practical demonstrations on new CT equipment (Spiral,Dentascan) recently acquired at our institution.
Name of Course: Maxillofacial Surgery.
Number: 13.3
Lecturers: Enrico SESENNA Appointed Professor.
Giacomo DE RIU, Appointed clinical Professor.

Contact person
(if different to the teacher): Giacomo DE RIU.
e-mail: gderiu@hotmail.com
Fax: +39-079-228541

An Introduction:
The course is held in the 2nd. semester of the 5th. year. It provides instruction on maxillofacial traumatology, malformations, salivary gland surgery, surgery on the temporomandibular joint, maxillary sinus and mouth tumours.

Primary Aims:
Illustration of the basics of diagnosis - indications and techniques for maxillofacial surgery.

Main Objectives: (6-10).
Surgical training in treatment for:
- maxillofacial trauma
- oral cancer
- salivary glands
- cranio-maxillofacial malformations
- maxillary sinus
- temporomandibular joint.

CURRICULUM DURATION:
50 Hrs.

Teaching / Learning Method:
Lectures.
Videotapes
Observation of patient consultations and checkups.
Surgery observation
Simulated application of sutures, intermaxillary fixation techniques.

Assessment Method:
Oral final examination.

Course strongpoints:
Brand new activity in degree course,

Course weaknesses:
Further course organization still is needed

Innovations and best practices:
Supervision of operating activities.
Possibility to observe maxillofacial operations and clinical practice.
Practical simulation and videotapes.
Extensive practical assistance in maxillofacial and oral surgery.
SECTION 14 Oral Medicine and Oral Pathology

Name of Course: Oral Medicine
Number: 14.1
Lecture: Dr. Egle MILIA, Researcher, Acting professor.

Contact person (if different to the teacher):
e-mail emilia@main.uniss.it
Fax +39-079-228541

An Introduction:
The course in Oral Medicine follows that of General Pathology, introducing the student to pathological disturbances ever present in Dentistry.

Primary Aims:
The main aim of the course is to bring to the attention of students the various pathological conditions they may meet up with in dentistry. Particular note is made of the clinical and radiological aspects of oral disease. Clinical examination and diagnosis by means of various tests, instruments and x-rays are carried out. Possible systemic complications of oral disease are given importance, and also the effects of systemic diseases on the oral cavity are studied.

Main Objectives: (6-10)
- Etiopathology training
- Clinic training
- Knowledge of clinical evolution and local and eventual systemic damage
- Observation and interpretation of x-rays of pathological situations
- A correct approach to diagnosis of oral pathologies
- Correct compilation of a clinical record for new patients, and the capacity to direct them towards the correct department for treatment.

CURRICULUM DURATION:
50 Hrs. comprising three-times weekly lessons.

Teaching / Learning Method:
Lectures making use of lucids, slides and x-ray images.
Practical work on patients, discussing aspects of the case being treated and putting into practice the theory previously studied, and the methods used to verify a condition.

Assessment Methods:
Students are tested periodically on their progress, with written exams, and they have an oral examination at the end of the course comprising the observation and interpretation of an ortho-panoramic x-ray chosen at random.

Course strongpoints:
Clinical and diagnostic techniques regarding disease are studied in great detail directly on the patient concerned, during the periods of clinical training. This encourages the students to go over their theory more thoroughly. They find this the most undesirable aspect of their training.

Weaknesses:
Little illustrated material for projection during lectures, hampering good understanding of pathologies.

Innovations and best practices:
Photographic archives of rare clinical cases for visual data in future reference.

Plans for future changes:
Increment in visual data for training purposes.
Name of Course: Anatomical Pathology.
Number: 14.2
Lecturing staff: Francesco TANDA, Full Professor, Dental School
Paolo COSSU-ROCCA, Researcher, Faculty of Medicine, Tutor.

Contact person
(if different to the teacher):
e-mail: tandaf@ssmain.uniss.it
Fax: +39- 079 –228259

An Introduction:
The course is held in the 2nd. semester of the 3rd. year in the curriculum. It follows the Basic Science courses, those of General Medicine and Surgery, and precedes the professional courses. It covers the main diseases of organs and systems to understand the relationship between micro and macroscopic pathological findings at the different phases of disease progression and clinical presentation. Special emphasis is given to tumoral conditions in the oral cavity.

It covers the main technical aspects of histopathology, and how to use pathologists to identify oral and systemic diseases.

Primary Aims:
13.30 histopathological identification of the oral and those systemic diseases with possible involvement of oral cavity
13.31 correlation of micro and macroscopic findings with the various clinical phases of oral diseases, whether dental or systemic

Main Objectives:
- preparation of a biopsy for further histologic, electron microscopic and immunohistochemical investigation.
- describe a pathological organ
- prevention and early recognition of tumours
- understand a pathological report and its clinical relevance
- understand under supervision histo-path. slides
- have a thorough knowledge of oral pathology
- practical observation under supervision of links between dental problems caused originally by systemic illnesses.
- know how is done a post-mortem examination, and understand a clinical pathologic correlation following a post mortem examination.

Hours in the curriculum: 60 Hrs.

Method of Teaching / Learning:
Lectures, practical work, problems centred cases, self-teaching programs.
Practical work covers observation of the main histopathological and electron microscope techniques, and at least three post-mortem examinations. Observation of findings in oral and systemic diseases under a multi head microscope, under supervision. Observation of histopathological findings of problems centred cases; each student checks samples under the microscope with a TV screen for general vision. (Under supervision). Parts of the program are left for personal study only, in set textbooks. If students have difficulty, they can get in touch with tutors for help. Tutors are on call to students for 11 months per year.

Assessment Method:
Oral examination at the end of program. Students may present all parts of the program in one session or choose to split it into two parts - Oral and Systemic. Assessment is judged by committee including professor of pathology who do not teach in the Dental School. Added credits are applied if a student did well in previous Oral Medicine, General Surgery, Dermatology and General Medicine exams.

Strengths:
- clinical and pathological correlation between oral and systemic diseases
- special attention given to tumoral oral diseases, and the need for their early identification or prevention
- few students on course, and the possibility to get to know them all personally, and understand eventual difficulties met up with during training.

Weaknesses:
- few inter-disciplinary meetings
- number of students on course should be increased
- students are too often behind with their study program, and in order to catch up, they miss out on current topics.

Innovations and best Practices:
- the use of the multi-head microscope for special-case observation
- single observation of slides, with their contemporary projection onto a TV screen, and subsequent discussion of findings.

Plans for future changes:
- increase of inter-disciplinary meetings and lectures on problems centred cases
- curriculum planned to lead up to future study topics
-improvement of facilities i.e. computers etc., and access to Internet libraries in order to help students and the future dentistry doctors to develop a self teaching program.
SECTION 15 Integrated Dental Care

Name of Course: Comprehensive Patient Care  
Number: 15.1  
Lecturer: Romano AMATO, Full Professor, School of Dentistry  

Contact person (if different to the teacher): PROF. GIULIANO FALCOLINI  
e-mail: dental@ssmain.uniss.it  
Fax +39-079-228541

An Introduction:  
The course is held during the 4th. and 5th. years. The 4th. year course is to teach correct routine diagnostic techniques, (case history, clinical examination, x-rays, tests, impressions etc.). The 5th. year course brings students into the check-in department of the Dental Clinic, and teaches them primary examination of patients. They learn to make a diagnosis and develop a treatment program for the case under examination.

Primary Aims: - to teach the dental students to diagnose and treat cases correctly.

Main Objectives:  
- to correctly compile medical history.  
- be capable of making a general and local examination  
- correct compilation of medical record  
- to request the correct diagnostic x-ray and laboratory tests  
- take an alginate impression for future reference  
- take into account the various other possibilities of diagnosis  
- give the patient a treatment program  
- write out a prescription for drugs  
- obtain patient consent.

CURRICULUM TIMETABLE:  
4th. year: 10 Hrs lectures, 40 Hrs. seminars.  
5th. year 10 Hrs. lectures, 40 Hrs. seminars.  
Clinical training + 6 months in Check-in Clinic at hospital, approx. 250 Hrs.

Teaching / Learning Method: Lectures  
Seminaries  
Presentation and discussion of literature papers.

Assessment Method:  
Evaluation of 36 cases during the Course. Results registered in the student's official Course Diary.  
Final oral examination with the discussion of a clinical case in front of a Commission made up by Lecturers from different clinical fields.

Course strongpoints: Experience gained in diagnosis of many different cases.

Weaknesses: The official lecturer has other commitments, and lecturing is often delegated to other tutors.  
The student does not follow up the case treated by him in the check-in department, so limited professional experience is gained.  
The student cannot judge the patient from all clinical points of view.

Innovations:  
After the 5th. year of studies, the student may request to remain in the Clinic until his degree has been taken, and follow up a patient through all phases of treatment, therefore getting the opportunity to examine, plan and actuate a treatment program even if the patient is transferred to another department. The lessons will be organised in seminar directly on patients of the clinical, in order to set up a plan of general dental care. Increment research through Internet.

Plans for future changes:  
To organize for all 5th. year students the possibility to follow patients through all phases of treatment, even if in other departments.
SECTION 16 Behavioural Sciences

Name of Course: Forensic Medicine.
Number: 16.1
Lecturer: Francesco LUBINU, Researcher, Faculty of Medicine, Acting Professor, School of Dentistry.

Contact person (if different to the teacher):
e-mail: flubinu@ssmain.uniss.it
Fax. +39-079-219179

An Introduction:
The course is held in the 5th year. Forensic Medicine is fundamental to dentistry from a juridical point of view, as to the entire medical profession. Juridical aspects are taught during the course to make students aware of the legal context in which they operate. The teaching material is drawn from court cases, both civil and penal, national and international, against dentists.

Primary Aims:
Basic juridical concepts applying to dentists and their professional career. Reduction of court-case risk.
Identification of human remains in forensic dentistry

Main Objectives: (6-10)
• Basic principles of Italian Law: the Constitution - penal and civil codes - codes of professional conduct regarding medics and dentists.
• Illustration of the principle legal aspects regulating the dental profession - informed consent – civil and penal responsibility - professional codes - civil code regarding relationship patient/dentist or patient/doctor.
• Illustration of criteria commonly used to judge levels of permanent damage to the dental and maxillofacial systems, and patient-cheating cases in Italy, Europe and USA.
• Forensic studies - traumatic events to cranium and maxillofacial region.
• Identification of corpses in "mass disasters" - morphological and genetic indications.

Hours in the curriculum
60 Hrs. concentrated into a period of six months, including numerous practical classes to familiarize students with common situations. Autopsy observation by students (small groups)

Teaching / Learning Method:
The course is divided into two parts, which also include periods of self learning
The first phase consist in a series of lectures which deal with the basic aspects of forensic medicine.
In the second phase students discuss with the lecturer special topics they have studied during the self-learning hours.

Assessment Methods:
The organization of the course (especially the second phase) allows the lecturer to verify the level of learning that students achieve during every lesson.
Moreover, at the end of the course there will be oral examination.

Innovations and best practices:

Plans for future changes:
SECTION 17 Examinations, Assessments and Competences

Person in School who will explain and show this to visitors:

Name Prof Francesco Tanda
e-mail tandaf@ssmain.uniss.it

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<tr>
<th>Course</th>
<th>Examinations</th>
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Members of the staff are asked to describe the following items:

17.1 Describe as briefly as possible the overall approach to assessment in the School and explain where they are summative or formative

All disciplines forming the curricula for the qualification as a dentist have objectives to be reached and for that a list of the objectives and topics is given. The various teachers give an assessment in different ways. Some of them base their evaluation on an oral exam in front of a committee of 2 or 3 teacher of the same University as better specified in the point 7. Others include also a written examination on the topics of the discipline. Not all the professors use the examination procedure as a formative part of the teaching. Most of the disciplines have an examination on all the topics in a single session while others split the program in two or three parts. An assessment is given in score from 1/30 to 30/30. Theoretically all points are assessed but practically are given only if the score is above 20/30. Usually for dental matters, and someone other too, in itinere written elaboration and continuous assessment is utilised particularly in consideration of the low number of students.

17.2 How much does the school rely on exams to motivate students

Students are motivated strongly by exams for studying and learning. In the past all exams were asked to be passed from 2nd to 3rd year; nowadays all exams without two are asked to be passed for each year. In addition, a strictly rule for preliminary study establishes the time to sit for an exam after the other one. In such a way, students are obliged to study in the correct progression.
17.3 **Strengths**
The limited numbers of the students allow a high elasticity of the exams for what the date is concerned. Sessions are programmed in three-year periods and within these periods the students can apply for the examination near all days. The variability of the ways for exams is undoubtedly a strength and the limited number of students allow to known them personally and to follow them during the lectures and to appreciate their improvement.

17.4 **Weaknesses**
We should improve the co-ordination between the disciplines and find a good propaedeuticity for the entire curriculum to indicate a single pathway for the education in the school with only few variations.

17.5 **Innovations and/or Best Practices**
Recently, the course sequence was modified; in addition the exams’ committee changed and now it consists of the professor of the discipline supported by the two professors of the most related speciality to the subject.

17.6 **Plans for future changes**
In the exams more characterising for the profession should be included in the committee also professors from others universities or doctors chosen from the professional associations.

17.7 **Explain as to what level external examiners are involved**
All examiners are members of the Faculty of Medicine of the University. There are not external examiners except for the “Esame di Stato – State exam” in which external examiners are included selected by the faculty from the professional societies, as specified at the point 8. In the school of dentistry a committee of 3 members makes the assessments; one is the official teacher and act as president of the committee. The other members can be teachers of the same institute or department. External examiners are not involved.

17.8 **What formal completion of an exam is required of the school/university for students to qualify and register as dentist (e.g. final examination)**
To qualify and register as a dentist the students have to pass an exam called “Esame di laurea” to get a degree in Dentistry. This exam is held in front of a committee of 11 teachers of the school with a discussion and presenting formally a thesis. To become dentist the doctors have to pass an exam called “Esame di Stato” held in the same day in all universities of Italy. The commission is made by teachers of the school but also by doctors or professors chosen between association of professional doctors. In Italy at the moment the structure of this exam is under discussion.

17.9 **The extent to which the school seeks those competencies recommended by the EU Advisory Committee on the Training of Dental Practitioners.** This document is on the DENTED website at http://www.dented.org
SECTION 18 Other Influences

Person in School who will explain and show this to visitors:

Name: Professor Paolo Castiglia

e-mail: castigli@ssmain.uniss.it, fax +39 079 228 032.

Please describe how the following influence the student’s curriculum and/or clinical training:

18.1 Regional oral health needs
In Italy no comprehensive care system regarding oral health is present or planned. In our region, regarding caries disease, the prevalence is higher than in Scandinavian or North European countries (Netherlands, Sweden and UK), while it is quite comparable to the prevalence values present in the Mediterranean countries. Sardinia also has a higher caries index comparing the situations of Milan (mean DMFT 2.6), Venice (2.2), Rome (1.8) and Naples (2.5). Malocclusion problems in Sassari are in great part comparable to other Italian areas, but in some part of the region (Nuoro and Oristano) the need of orthodontic treatment is very high.

18.2 Evidence based treatments
Our Dental Institute has a role in the National Health System. It determines some positive and negative effects on the School organization. Between the negative effects are to be underlined that the dental staff is heavily involved in clinical patient care and this may reduce the efforts and the time for teaching and research. Furthermore the patient fees and the money provided by Nation Health System are not adequate to cover the effective costs of the therapies, so a chronic deficit is determined. Between the positive effect it is possible to note that the students have the chance to treat many patients during the clinical training.

18.3 Involvement in other universities activities and sport
There are some universities activities especially for students like the music group and the sport group. The committee is called CUS (Centro Universitario Sportivo).

18.4 Recreation

18.5 Student selection procedures
The procedures are based on written multiple choice quizzes on Chemistry, Physics, Biology and Mathematics, plus an evaluation of secondary school diploma. Until 1997 the quizzes were prepared by each University committees, and were in number of 70, because 30 points were reserved to the score of secondary school diploma. From 1998 the quizzes are prepared directly by the Ministry of University, 90 questions only 10 points are reserved to secondary school diploma.

18.6 Labour market perspectives
The labour market perspectives changed a lot, during the last twenty years. In the 80’s the recent graduates were able to open promptly their own private clinic; nowadays they ask other practitioners for helping them and training clinical experiences. Only after some years (2-3) they usually become private practitioners: but the city labour market is full, and they should go to villages.

The numbers of registered dental practitioners in Italy is 45.000 and a ratio dentist/population 1: 1200 in Italy ; 1: 1450 in Sardinia, 1: 1150 in the province of Sassari and 1: 750 in the city.

Please write a short paragraph on the employment opportunities for your graduates and particularly if there is a significant movement of your graduates to another country

For our graduates there are a lot of opportunities to co-operate in other private practitioner’s clinic to practice paediatric or restorative dentistry. The great majority of students of Dental School of Sassari are Sardinian and generally remain in the island. We had in the past very few students from other part of Italy that moved to their towns after graduated. We had very few European students

Please describe whether any particular time is devoted to involvement in sport or other university activities outside the faculty or school of dentistry.

What efforts are made to ensure students have a sufficient time for student reflection?
We prefer to ensure students have a great opportunity to do a clinical training during the last 3 years of course. Consequently, only in the first two years they are able to be present at lectures and seminars and have a sufficient time for reflection and studying. During the last 3 years they should be present in Dental Institute all mornings from Monday to Friday (sometime to Saturday) and two afternoons; the other 3 afternoons are reserved to lectures and seminars. Consequently students are able to reflect and study only Saturday afternoon, Sunday, and...the evenings! It is difficult to finish the requested exams and to prepare the research thesis for graduation in the same time during the fifth year. This is the reason why none student is able to graduate at the July session, 30% of student can do at November session, 20% at March session of subsequent year, and 50% should wait one year or more.
SECTION 19 Student Affairs

Visitors should meet full class together of final year together with the class representatives of earlier years.

Name of Student representatives who will discuss this:

Final year: Samuele Fadda, Padula Tommaso
Fourth year: Spano Anna Laura, Murgia Marco
Third year: Medas Antonio, Lai Mimma
Second year Susini Stefano

Because of the few number of students (10 per year) all of students are invited to meet visitors.
The real difficult is the language, because they are not experienced in discussion in English language. If it is impossible to find a student fluently speaking in English, we’ll try to find a translator out the dental School (in the linguistic Centre of University).

19.1 Basic data from Dental Schools

- Average number of dental students qualifying per year: 8
- Average number of dental students admitted to the first year: 10*
- Length of course in years and/or in semesters: 5 years (10 semesters)
- Is there a separate period of vocational training following graduation as dentist in your country? **NO
- If yes to above, is that organised by the University/Dental School?
  Please note: * because of forensic Court decision, many other students were admitted in the last past years; in Sassari only 7 more were admitted, but in other Italian Schools many other!
  ** the problem of training after graduation is under discussion at this moment in Italy

19.2 List different postgraduate courses

<table>
<thead>
<tr>
<th>Subject/Speciality</th>
<th>Degree Awarded</th>
<th>Length of Course</th>
<th>Annual students</th>
</tr>
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<tr>
<td>Preventive Dentistry</td>
<td>Doctorate (master)</td>
<td>3 years</td>
<td>1 - 3 *</td>
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<tr>
<td>Paediatric Dentistry</td>
<td>Postgraduate course**</td>
<td>1 year</td>
<td>3</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>Speciality *** (starting this year)</td>
<td>3 year</td>
<td>1</td>
</tr>
</tbody>
</table>

19.3 List different auxiliary/technology/other courses and state and state number who qualify per year
A Diploma course in Dental Hygienist is held in the Dental Institute, with five students per year.
SECTION 20 Research and Publications

Person In the school who will explain and show this to visitors

Name Bruna Tadolini
Email tadolini@ssmain.uniss.it          fax +39-079-228120

grants

University grants  Euro 57,203.
Other funds (Sardinian region etc)  Euro 17,445
Total  Euro 74,648

number of invited presentations at international meetings (excluding abstracts)

- Falcolini :  IADC Congress - Buenos Aires 1997
  EADPH 1st Congress - Cittadella 1997
  EADPH 2nd Congress - Santander 1998

Please provide a list of publications. Each area set out below is asked to have a set of reprints available for visitors to see when they visit.

Host School should set out the publications of all staff according to the sections set out below strictly confined to past 36 months - please exclude abstracts and articles in non-scientific or non-referred journals

- number of publication in referred journals

<table>
<thead>
<tr>
<th>Section</th>
<th>Subjects</th>
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<tr>
<td>5</td>
<td>biological sciences (A)</td>
<td>Pinna, Cappozzo, Pasquali, Tadolini, Tolu</td>
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<tr>
<td>6</td>
<td>Preclinical sciences (B)</td>
<td>Montella, Arena,</td>
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<tr>
<td>7</td>
<td>Paraclinical sciences (B)</td>
<td>Baldoni, De Natale, Rubino, Simile,</td>
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<td>8</td>
<td>Human diseases (C)</td>
<td>Satta, Scanu, Mulas, Agnetti, Ena, Meloni, Gallisai</td>
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<tr>
<td>9</td>
<td>Orthodontic and Child dental health (D)</td>
<td>Bossà, Falcolini</td>
</tr>
<tr>
<td>10</td>
<td>Public dental health and prevention (E)</td>
<td>Campus, Lumbau, Castiglia</td>
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<tr>
<td>11</td>
<td>Restorative dentistry (F)</td>
<td>Lugliè, Chessa, Stellino</td>
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<td>Periodontology (F)</td>
<td>Bar, Forteleoni</td>
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<td>13</td>
<td>Oral surgery, dental radiography and Radiology (G)</td>
<td>Amato, Lallai, Conti, De Riu</td>
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<td>14</td>
<td>Oral medicine and oral Pathology (H)</td>
<td>Milia, Tanda</td>
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<td>Integrated dental care</td>
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<td>16</td>
<td>Behavioural sciences (forensic medicine)</td>
<td>Lubinu</td>
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</table>


Section  5 Biological Sciences  


- U. Della Croce, **A. Cappozzo** and D.C. Kerrigan; "Pelvis and lower limb anatomical landmark calibration precision and its propagation to bone geometry and joint kinematics", Medical & Biomedical Engineering and Computing **37** (1999): 155-161.


• Deriu F., Podda M.V., Chessa G., Tolu E. Trigeminal integration of vestibular and forelimb nerve inputs. Archives Italiennes de Biologie 137, 63-73, 1999


Section 6-7, Preclinical & paraclinical sciences  B Montella, Arena, Baldoni, De Natale, Rubino, Simile,


• Rubino S., Spanu L., Mannazzu M., Schiaffino A., Cappuccinelli P., M.S. Mura, Aceti A. Molecular typing of non-typhoid Salmonella strains isolated from HIV-infected patients with recurrent salmonellosis. AIDS,13:137-139,1999


Section 8  Human diseases  C  Satta, Scanu, Mulas, Ena, Agnetti, Meloni, Gallisai,

- **Agnetti V.**, Sechi G.P., Murrihile M.R., Ortu R., **Conti M.**: Need for explicit criteria for anatomic correlations in MS. Mov. Disord. 1999 (in press)
• Meloni F., Stomeo F., Bozzo C., Riu F.: Su di un caso di paraganglioma vagale asintomatico Otorinolaringologia, 49, 91-95, 1999
Section 9  Orthodontic and Child dental health  D Bossù Falcolini


- **Falcolini G.,** Campus G., Fuller R. - Ioni Fluoro nelle paste dentifricie: Captazione da parte dello smalto - Dental Cadmos 3 : 39-45 ; 1998
Section 10  Public dental health and prevention  E  Castiglia, Campus, Lumbau


Section 11  Restorative Dentistry  F  Lugliè, Chessa, Stellino
Section 12  Periodontology  F  Bar, Forteleoni Section


- Landi L, Stellino G, Sabatucci D. Preventing ridge deformities treating fresh maxillary extraction sockets with DFDBA and bioresorbable membranes. A clinical histological and histomorphometric study. (in press)

- Stellino G, Landi L. Retrieval of a 6-year unloaded Hydroxiapatite-coated dental implant placed into an extraction socket, in conjunction with non-resorbable hydroapatite grafting material. (in press)
Section 13 Oral surgery Dental radiography and radiology


- **Conti M.** with G.P. Sechi, A. Achene, B. Murgia, G. Sanna, V. Agnetti: Brainstem mass on magnetic resonance imaging (MRI) as a presenting sign in Behcet disease. European Journal of Neurology vol. 5, suppl. 3: 201, 1998


- **Conti M.** with G. Serra, L. Demelas, A. Achene, M. Tondi, C. Fabbri; Lissencephalia X-linked: una nuova famiglia senza l’eterotopia a banda sottocorticale nella femmina portatrice. Giornale di Neuropsichiatria Infantile (in press)


- **Conti M.**with P. Lisai, C. Doria, L. Crissantu, G.B. Meloni, C. Fabbriciani. La stenosi lombare: risultati clinici a medio termine dei casi trattati in cruenta. Chirurgia degli Organi di Movimento (in press)

- **Conti M.** in collaboraz. con I. Magnano, K.S. Paulus, I. Aiello, G. Rosati, A. Achene, R. Piras: Longitudinal study of cognitive dysfunction in Multiple Sclerosis: neuropsychological, neuroradiological and neurophysiological findings J Neurol Neurosurg Psychiatry (in press)


• G. De Riu, M. Mommaerts. La prevention de la retraction palpebrale apres blepharoplastie inferieure. Ann Chir Plast Esthet (Accepted Feb 2000, in press)

Section 14  Oral Medicine and Oral Pathology  H   Milia, Tanda

Section 16  behavioural sciences (forensic medicine)  Lubinu


- **Lubinu F.** A. Bucarelli; P. Matera; S. Lorenzoni Su due singolari casi di uso non terapeutico di propofol (Diprivan). Jura Medica 11,85,1998

- **Lubinu F.** A. Bucarelli; D. Cafini. La responsabilità nel DEA e nel Pronto Soccorso In press

- **Lubinu F.** su porocanal di kohn (nota preliminare allo studio tanatologico del polmone al SEM) Min. Med. Leg. (in press)

- **Lubinu F.** Foro di ingresso anomalo (contributo casistico) Jura Medica (in press)

- **Lubinu F.** A. Bucarelli; P. Matera. La malattia Terminale. Aspetti organizzativi, clinici, medico legali, etici e deontologici. Ed. CEDAM; Padova; 1999
Abstracts and congress acts

Section 5 Biological Sciences


Section 6-7, Preclinical & paraclinical sciences


• Rubino S., Bacci D., Scarpellini G., Prota R. Isolamento e caratterizzazione di ceppi di Bacillus thuringiensis con attività insetticida. 26° Congresso Nazionale della Società Italiana di microbiologia, Bavero(VB), p. 238, 1997


• Montella A., Rubino S., Manca A. Petruzzi M., Repice F Morphological evidence of the interaction between Salmonella and ovine enterocytes 51° Congresso della Società Italiana di Anatomia Torino 1997


• Rubino S., Uzzau S Salmonelle specifiche per l’ospite: possibile utilizzo per lo sviluppo di vaccini 27° Congresso Nazionale della Società Italiana di Microbiologia, p. 7, Reggio Calabria, 1999

• Rubino S., Spanu L., Mannuzzu M., Schiaffino A., Cappuccinelli P., M.S. Mura, Aceti A. Molecular typing of non-typhoid Salmonella strains isolated from HIV-infected patients with recurrent salmonellosis. AIDS, 13:137-139, 1999

Section 8  Human diseases  

- Dessanti, M. Iannuccelli, G.B. Meloni, R. Oggiano, **Scanu A.M.:** Pyloric atresia. Pyloric recanalization with transposition of duodenal and gastric mucosa. XLV Annual Int Congress of British Association of Paediatric Surgeons, 1998)
- **Mulas M.** Foddanu R., Secchi F., Bazzoni C., Ruju P. Anaesthesia and ART. Abstracts "International meeting on infertility and assisted reproductive technology", Porto Cervo, Costa Smeralda, 11-14 Giugno 1997.


Section 9  Orthodontic and Child dental health  D  Bossù Falcolini


- **Bossù M**, Milia E, Onali M, **Falcolini G**: Stomatologic care requirement for a selected population in Italy. 44th Orca Congress. Abstract n°37 Caries Res 1997;31:293.


Section 10  Public dental health and prevention  E  Castiglia, Campus, Lumbau


• **Campus G, Lumbau A.** Lai S. Falcolini G. Mutans Streptococci, Lactobacilli and caries experience in 6- to 8-year-old sardinian urban children. Caries Res 1997;31:281-284


<table>
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<tr>
<th>Section 11</th>
<th>Restorative Dentistry</th>
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Section 13  Oral surgery Dental radiography and radiology  
G Amato, Lallai, Conti


• **Conti M.** in collaboraz. con G.B. Meloni, S. Profili, P. Lampus, R. Dalfiume, S. Rovasio CT evaluation of complicated hydatid cysts. Atti del 12th European Congress of Radiology. Vienna 7-12/3 1999

• **Conti M.:** Anatomia e tecnica di studio della regione petromastoidea. III° corso regionale di neuroradiologia "Anatomia e patologia del basicranio: diagnostica integrata e terapia. Sassari 28-29/5 1999

• **Conti M.:** Imaging RM convenzionale dell'encefalo. "La sclerosi multipla: clinica e diagnostica per immagini, attualità e prospettive. Alghero 11-12/6 1999

• **Conti M.:** Ictus ischemico: semeiotica RM. Corso di Aggiornamento "Ictus: dalle basi alla fibrinolisi" L'Aquila 17-18/9 1999

• **Conti M.:** Diagnosi neuroradiologica di demenza vascolare. Corso dell'Accademia Nazionale di Medicina su "La Demenza Vascolare". Cagliari 30/10 1999.


Section 14 Oral Medicine and Oral Pathology  H Milia, Tanda


- Bossù M, **Milia E**, Onali M, Falcolini G: Stomatologic care requirement for a selected population in Italy.44th Orca Congress. *Abstract* n°37  *Caries Res* 1997;31:293.


• number of textbooks published by staff

  Baldoni E. - Fonoartrometria dell’articolazione temporo-mandibolare -
  Euroma Editrice Universitaria di Roma-La Goliardica, Roma 1997

• number of chapter in books


  Conti M., Collo e Mediastino. in Simonetti G.-Passariello R.: Compendio di Radiologia Clinica ed. G. Gnocchi (in stampa)

  Forteleoni G. - in Luigi Checchi, Fratture radicolari - ed. Masson, Milano 1999

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SECTION 21 - Quality Development or Continuous Improvement Policies/Schemes

Person in School who will explain and show this to visitors:

Name: Professor Giuliano Falcolini

e-mail: dental@ssmain.uniss.it, fax +39-079-228541

The Dean and the staff think that the points of the school are:

Strengths
- Enthusiasm
- Practical training whole week,
- Good opportunity to gain practical experience
- Friendly relationship between professors and students
- Good information about new products and technology
- Much voluntary support
- Some course are joint with medical students

Weaknesses
- Few number of professors and tutors particularly in the professional disciplines
- Some course are joint with medical students
- Connection with NHS limits time for professors
- Financial problems
- Bureaucratic administration impeach the quick solutions
- Low salaries create difficult for new recruitment

Do you or any members of the staff have any recommendation on appropriate methods of promoting the development of quality assurance methods or a continuous improvement policy.

Does your school have any plans for improving or implementing new quality development methods? If yes, please explain very briefly as this is a topic for European consideration.

Faculty and staff development :

Aims: To finish the course during the fifth year!
Implementation: is under discussion to balance the time dedicated to clinical training and time to studying
Evaluation

Student evaluation: Questionnaire at the end of semester

Internationalisation
The dental Institute organised two international congresses (EAPD 1998, ORCA 2000) and also staff member attended to several international congresses (IADR, EADPH, IADC, EAPD, ORCA, PERIO)

International contacts - Undergraduate programme

Student and staff visits abroad

Foreign students visits to the actual school
- Erasmus project in the past (with Paris V and Reims)
- Visit groups in 1996 and 2000 in Belgium and France
- Amato, Stellino (USA) Forteleoni (USA) Baldoni (USA) Campus (S) Lumbau (F) Lallai (F)
 SECTION 22 - Overall comments on the School

The entries completed for this working section provide the basis and headings for the visitors to complete their written Final Report. This report will be confidential between the visitors, the DENTED Coordinator and the School. It requires the agreement of the Dean of the School visited should DENTED wish to use it in part or in full as an example for subsequent visits. It will only be used in so far as the Dean concerned is prepared to release information.

DENTED owes the school and its staff a great debt of gratitude for your participation and willingness to share your experiences and innovations, thank you.
Protocol of School visit (Programme)

Saturday, 13th May

<table>
<thead>
<tr>
<th>Name</th>
<th>Flight from</th>
<th>Arriving at</th>
<th>Departing from Rome</th>
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<tr>
<td>McGowan, David</td>
<td>Glasgow (Alitalia via London)</td>
<td>Rome 15,40</td>
<td>16,30</td>
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<tr>
<td>Gajewska, Maria</td>
<td>Wien Alitalia</td>
<td>13,10</td>
<td>16,30</td>
<td>17,50</td>
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<tr>
<td>Miotti, Francesca</td>
<td>Milan</td>
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17.30 Arrival at the Airport of Alghero, and transfer to Sassari
18.00 Arrival to Hotel: Frank Hotel
18.30 **Hotel Visitors** meeting
19.30 **Dean Office** Meeting with Dean and contact persons to confirm the programme (Falcolini, Tanda, Tadolini)
20.30 *Visitors dinner* with the same contact persons = 3

Sunday, 14th May

8.00 **Hotel** Breakfast
9.00 **Meeting in the Dental Institute**

<table>
<thead>
<tr>
<th>Location</th>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>Library</strong></td>
<td>9.00</td>
<td>General introduction (Section 1) prof.Falcolini</td>
</tr>
<tr>
<td></td>
<td>9.30</td>
<td>Facilities (Section 2) prof.Tadolini</td>
</tr>
<tr>
<td></td>
<td>10.00</td>
<td>Administrative Structure (Section 3) rag.Nuvoli</td>
</tr>
<tr>
<td></td>
<td>10.30</td>
<td>Staff (Section 4) prof.Satta</td>
</tr>
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11.00 **Tour** of School and University **Facilities** *(empty)*
* Dental Institute, Student Center, Lecture rooms, Informatic room (Chemistry), Libraries (Dentistry, Faculty, University) Anatomy

13.00 Lunch with **Senior Staff** (Amato, Falcolini, Satta, Tadolini, Tanda, Baldoni, Castiglia, Simile + Cappozzo, Montella, Tolu) = 11 ?

15.00 **Library**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>15.00</td>
<td>Integrated patient care (Section 15) prof.Falcolini</td>
</tr>
<tr>
<td>15.30</td>
<td>Examinations and Assessments (Section 17) prof.Tanda</td>
</tr>
<tr>
<td>16.00</td>
<td>Research and Publications (Section 20) prof.Tolu</td>
</tr>
<tr>
<td>16.30</td>
<td>Other Influences (Section 18) prof.Castiglia</td>
</tr>
</tbody>
</table>

17.00 **Amato room** **Visitors** meeting
19.30 **Central University** Meeting with the University Authorities
20.30 **Visitors dinner** with University Authorities (President, Dean of the Faculty of Medicine, Dean of the Medical School, Dean of the Dental School, Chairmans of the Teaching and Tutorial Committees) = 6
Monday, 15th May

8.00  **Hotel**  Breakfast
9.00  **Dean Office**  Introduction to the **Dental Curriculum**  
     (prof. Falcolini)

Room A
(Dean Office)
Phisics, Chemistry, Biology, Biochemistry  9.15
(profs. Pinna, Cappozzo, Pasquali, Tadolini)
Anatomy, Hystology, Physiology  10.15
(profs. Montella, Arena, Tolu)
**Dental** Material, Prosthodontics  11.15
(profs. Baldoni, Chessa)
Paediatric **Dentistry**, Orthodontics, Paediatrics  12.15
(profs. Falcolini, Bossù, Gallisai)

Room B
(Amato room)
Medicine, Neurology, Dermatology, E.N.T.  9.15
(profs. Satta, Agnetti, Ena, Meloni)
General Surgery, Anesthesiology, Pathology  10.15
(profs. Tanda, Scanu, Mulas)
**Oral Surgery**, Maxillo-Facial Surgery, Radiology  11.15
(profs. Amato, Deriu, Conti)
**Conservative** Dentistry, Oral Medicine  12.15
(profs. Lugliè, Milia)
Lunch with junior staff (Lugliè, Bossù, Chessa, Milia, Campus, Lumbau, Deriu, Forteleoni)

15.00  **Library**  Meeting with the students and recent graduates
17.00  **Library**  Meeting with the Dental Hygienist School students
18.00  **Amato room**  **Visitors**  meeting

**Visitors** dinner with Dean + representative of students (Fadda S, Tommaso, Anna Maria) and Dental Hygienist students, +
representative of the profession: ANDI + AIO- Delogu = 8
Tuesday, 16th May

8.00  **Hotel** Breakfast
9.00  Review **Facilities** in operation + **Clinical training**
* Dental Institute, Student Center, Lecture rooms,
  Informatic room (Chemistry), Libraries (Dentistry, Faculty, University)
  Anatomy
11.00 **Dental Curriculum**
Room A  Microbiology, Pharmacology, General Pathology  11.00
(Dean Office)
  (profs. Rubino, Miele, Simile)
  Comprehensive **patient care**, 12.00
  (profs. Amato, Falcolini)
Room B  Forensic Medicine, Public Health, Statistics, 11.00
(Amato room)
  **Periodontology** (prof. Forteleoni) 12.00

13.00 Lunch with **Tutors** (Lallai, Vania Lai, Spano, Stellino, Grazia, Gabriela, Rodella)
15.00 Review **research laboratories** in operation
* Scanning Electron Microscopy
  Physiology, Biochemistry, Microbiology
  Hygiene, General Pathology
17.30 **Amato room**  **Visitors** meeting
19.30 **Dean Office** Preliminary findings - Meeting with Dean
20.30  **Visitors dinner** + Dean and contact persons = 3

Wednesday, 17th May

8.00  **Hotel** Breakfast
9.00  **Library** Final discussion - Plenary meeting with **School Council**
12.00 Farewel lunch
13.00 Transfer to Alghero Airport and departure: 14.00 Alghero-Rome (arrival 14.55)

Flights to foreign countries (Alitalia):  Rome-Dublin (via London)  17.25 (arrival 22.45)
  Rome-Glasgow (via London) 17.25 (arrival 22.20)
  Rome-Krakov (departure to Wien 17.25 - arrival 20.50)
  (Sabena) Rome-Oslo (via Bruxelles) 15.45 (arrival 20.50)
*from Rome to Wien 14.25 arrival 16.05
  from Alghero to Rome 10.40 arrival 11.35
SASSARI UNIVERSITY MEDICAL AND DENTAL SCHOOL

SARDINIA - ITALY

DentEd Site Visit Report

May 2000, 14-17

Part II

Visitors Comments

Visitors

Chairman
Dr. Frank Houston
Prof. Maria Gajewska
Prof. David McGowan
Prof. Francesca A. Miotti

Rapporteur
Prof. Arild Stenvik

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SECTION 1 Introduction and General Information

As a group we were very pleased to be asked to visit this relatively small and young School with a very active and dedicated staff with very strong leadership.

The Dental School of Sassari University was founded in 1980 when this curriculum was first established in Italy, and is integrated in a much larger Medical Faculty and University Hospital.

Up to 1980 Dental Education was a post-medical speciality and after 1985 a separate dental degree was established. A parallel training of dentists under a new dental Curriculum and as a speciality of Medicine continued until 1990. Medical speciality schools in dentistry were finally closed in 1993. A three-year program for training of dental hygienists has recently been implemented.

Funding for the Dental School is partly dependent on the National Health Service, supported by the Ministry of Health according to executed dental treatments.

Undergraduate Education

The Dental Course has a target entry of 10 students per year over a planned 5-year program. However, only 50% of the class qualify within 5 years. Another 25% qualify in the last season of the 5th year or subsequent March.

The Dental Curriculum includes basic sciences (chemistry, physics, biology) which are taken with the medical students, in addition there are courses in biomedical sciences and oral sciences.

Clinical course is in 3rd, 4th and 5th years.

The clinical program in the 3rd year consists of clinical assisting and patient contact takes place in the 4th and 5th year with major focus on Child Dental Health, Orthodontics, Restorative Dentistry and Periodontology in the 4th year. Oral Surgery and Prosthetic Dentistry are in the 5th year.

The School is situated in a relatively isolated and less prosperous part of Italy (Sardinia), with a very high unemployment rate.

This has implications in terms of:
- recruitment and retention of staff
- the available patient pool
- the amount of income which can be earned from treating these patients
- the scope and range of clinical experience available to the students

SECTION 2 Physical Facilities

2.1. Clinical Facilities

Overall, the facilities available to the students appear to be adequate. The facilities available in common with the medical school are in fact very good. In the Dental School itself the clinical facilities are of a mixed quality with a phased replacement policy in place.

The chairside assistance in the clinic is provided largely by 3rd year dental students and 1st year hygiene students. This transfers the roles of clinical organization and patient data entry into the computer and general reception duties to the 4 dental
nurses working in the clinics. These arrangements appear to work satisfactorily but would severely limit the experience and skills maintenance of the dental nurses, and transfers an excessive burden of clinical assistance to the students involved due to inadequate number of employed personnel.

Overall the reception and patient management system appear to be satisfactory. The clinical storage operates on a demand system to avoid excessive wastage and appears to work efficiently and effectively.

The radiology facilities have been upgraded but the appointment of a superintendent radiographer would benefit in terms of both the practical usage of the equipment and in terms of health and safety aspects.

The operating theatre intended in the future for the use of general anaesthetics appears in our opinion not suitable for GA facilities because of limited and difficult access for emergency assistance and the time it would take to transfer a patient to the nearest ICU facilities. This theatre, however, could serve as a suitable environment for procedures carried out under local anaesthetics and selected procedures.

The Sterilization Department (CSSD) is manned by 1 dental nurse and would appear to be adequate both in terms of equipment and procedures.

2.1.1 Technical Laboratories

The technical laboratory is a small neatly arranged and fairly well equipped facility and could produce adequate technical backup for the clinical requirements of the Institute. However, the staffing complement in the area is wholly inadequate being manned by only 1 half time technician who only does orthodontic work.

2.2. Teaching Facilities

The teaching program for the combined medical and dental basic sciences and biological science is largely run on a full class basis (approx 110 students). The lecture theatre facilities needed for this type of approach are available and seem to be adequate. However, if a changeover to a more modern seminar-based self-directed learning approach is ever to be considered, there would seem to be insufficient seminar room space available in the existing arrangements. Later on when the dental students are undergoing separate tuition a small size class would allow a lecture or seminar approach to be adopted and the facilities to do this would seem to be available.

2.3. Teaching Laboratories

This laboratory is equipped adequately in terms of workstations and cutting instruments, there is also an intra-oral camera system which provides clear views of demonstration procedures on a monitor visible to all the students. There has been a big problem in obtaining sufficient plastic teeth for the manikin heads.
2.4 Research Laboratories
We were provided with a comprehensive set of reprints of staff publications and we were given the opportunity to tour the adjacent nearby medical scientific laboratories which were spacious and well equipped. It was clear from the publications that a number of staff had been able to take advantage of these opportunities of co-operation with the laboratories to produce some interesting and useful research. However, it was evident that many of the publications by the medical staff were naturally in the medical area, unrelated to dentistry.

2.5 Library
The physical facilities of the main medical library in terms of reading space and lighting appear to be adequate. However, the range of dental texts and periodicals available is very limited. The Faculty has introduced IT facilities for online internet access. The facilities themselves are of a good standard but their use by the students is hampered by several factors:

- policy not to purchase online journals as a cost saving exercise
- a lack of IT experience and training among some students and staff difficulties experienced by some students and staff in working outside the Italian language environment
- with increased familiarity and exposure the use of these facilities is likely to increase and at that stage the number and availability of outlets may not be adequate

There is an area called the library in the dental institute but it is not stocked for nor used for this function. A small area furnished with textbooks, a range of journals and some work stations for internet access would be a very useful addition to the teaching and learning facilities of the institution for both staff and students.

Student facilities
One of the strengths of the dental school is the small size of the classes which allows for a high level of personal interaction with staff members. This impression was reinforced strongly in the meeting with the students themselves. For the preclinical students there is a large shared common room/study area with an associated canteen area and photocopying facilities in the main medical school facility which appears satisfactory. In the institute itself there are no common room available and students tend to congregate for discussions and refreshments in the corridors and in the entrance foyer.

Student support is available from the local regional authority for accommodation and expenses related to studying. The issuing of these grants is dependent on the students' financial circumstances and is also determined by their academic level of achievement.

Collective trips are organized by the Dean to national or foreign dental schools on an annual basis. These tours have to be financed partly by the Faculty and partly by the students themselves.

The Erasmus system applies to the students and staff in the school. Individual members of staff have made personal connections with schools which have allowed students to visit these institutions in the past.
Both staff and students feel a strong need for these outside contacts because of the relatively remote and isolate position of Sassari.

Personal counselling is mandatory and available with a ratio of 1 counsellor per 4 students but according to the staff rarely needed or used. Clinical and academic counselling is provided on a group basis and since 1996 feedback from the students in terms of their satisfaction with the course content and delivery is achieved through the use of a questionnaire. At the beginning of the first year each student is issued a booklet which contains the out-line of each course, sequence of course, rules and regulations of the institute.

Each student is required to produce a research-based thesis at the end of his program. A thesis is a national requirement and the support and advice for this exercise is delivered by the staff in the discipline to which the thesis relates.

The whole area of student advice and feedback is hampered by the difficulties and limitations related to the availability of administrative support.

SECTION 3 Organisational and Administrative Structure

The full complement of administration for both the medical and dental schools is 5 people, in addition there are 2 attached to the dental institute. There is no full time secretarial staff available to the dental institute. Even though the dental institute is a small establishment a lack of adequate assistance in the administrative and secretarial duties probably shifts an excessive administrative burden to the small clinical staff. See also Section 1.

SECTION 4 Staff

Within the Dental School only 3 full time professors are working at the Dental Institute. The other professors are all medical graduates attached to the Medical Faculty, who teach in both the Medical and Dental Schools and carry out no clinical supervision and training for dentistry.

In the staff at the Institute are 9 (7 full-time and 2 part-time) members. 7 members are dedicated to clinical training and 2 are junior researchers (clinical tutors). There are also 7 voluntary part-time tutors: 3 postgraduate students and 4 part-time professors whose salary is provided by the Dental Hygienist School.

The staff in Sassari is dedicated and particularly those with responsibility for specific units. However, there is a number of staff members listed who are rather infrequently present in the Institute.

The Dean is strong and enthusiastic and seems to have established a good rapport with the students and most members of the staff. There is a strong co-operation with many members of the Medical Faculty involved in the Dental School. This strong leadership is reflected in the staff and their working relationship. In the future there will be a need to replace his leadership with a more collective responsibility involving additional staff at a professorial level.

In this regard we perceive a need for stronger leadership in the following disciplines: periodontics, prosthodontics and to some extent orthodontics. This might be addressed by appointments at professorial level thus creating a better balanced situation within the institution that would provide a future for bright young members of the staff. We felt that more support should be given in the areas of radiology and anaesthesiology. Overall, it appeared to us that there was not a very coherent system.
of staff progression. We identified aspects in the orthodontic and surgery courses where improvements have yet to be made. However, we were convinced during our visit that the efforts and commitment of the energetic staff in these areas held the promise of achieving the required goals in these areas in the near future.

The staff/student ratio for clinical supervision in the Dental Institute appears to be good by any standards.
THE DENTAL CURRICULUM

SECTION 5 Biological Sciences
Chemistry, Medical Physics, General Biology, Biochemistry, Physiology
This is a joint course with the medical students and dedicated courses in some matters. It is a solid traditional course; perhaps the emphasis is too much on lectures and too little on small group teaching and practical training.

SECTIONS 6-8
Preclinical Sciences
Anatomy, Histology

Paraclinical Sciences
Dental Material, Pharmacology, Microbiology, General Pathology, Health Statistics

Human Diseases
General Medicine, General Surgery, Anaesthesiology, Neurology, Dermatology, ENT, Pediatrics

These are solid and traditional and are designed for dental students but given by lecturers from the medical school. Several teachers complained about there being too little time available and students' motivation

SECTION 9 Orthodontics and Child Dental Health
Orthodontics, Pediatric Dentistry
An extensive and well structured course is provided in Pediatric Dentistry. See also section 4.

SECTION 10 Public Dental Health and Prevention
Largely covered in Health, Statistics and Pediatric Dentistry Departments.

SECTION 11 Restorative Dentistry
Restorative Dentistry, Prosthodontics
The training in Operative Dentistry seems fully adequate. In Prosthodontics, important procedures were generally not performed by the students such as full dentures and fixed prosthetic work.

SECTION 12 Periodontology
See section 4.

SECTION 13 Oral Surgery, Dental Radiology
Oral Surgery, Radiology, Maxillo-facial Surgery
Students have ample opportunity for local anaesthetic extractions under supervision but their individual experience of operating is very limited. See also section 4.
SECTION 14 Oral Medicine and Oral Pathology

Oral Medicine, Anatomical Pathology
A solid and adequate course seemed to work well.

SECTION 15 Integrated Dental Care

Comprehensive Patient Care
The principle has been identified but it does not seem to have been implemented so far. The availability of patients requiring this sort of treatment appears to be somewhat limited. In order to implement a credible policy of comprehensive dental care some individual areas of dental treatment such as periodontics, prosthodontics, adult orthodontics and radiology would need to be developed even as separate disciplines. If this was achieved the road would then be open to the combining of and liaising between areas of treatment.

SECTION 16 Behavioural Sciences

Forensic Medicine
We were struck by the absence of any form of courses in the area of behavioural science (psychology, sociology). However, the matter is being developed in the Pediatric Dentistry course.

SECTION 17 Examinations, Assessments and Competencies

Examination
National examination system is carried out as follows:
at specified times during the year over a period of about one month assessments are carried out by a team of 2 or 3 people including the professor of the relevant discipline and other appropriate teaching staff. The timing of the individual assessment during this one month period is by arrangement between the staff and students and includes both written, oral, and where applicable practical components, as decided by the teaching Council. The marking system is on the nationally agreed system where the total mark is 30 and the passing mark is 18.

Assessments
In several disciplines there is also a continuous assessment which in some cases has a practical component.

The examination in pediatric dentistry includes pediatrics and follows a different pattern:
in this case each student is required to carry out a critical reading assignment on an article selected by the student from a journal issue chosen by the head of the department and a case presentation prepared and documented by the student in clinical logbook format.
An oral examination is carried out related to both these exercises but is extended to include almost the whole clinical and theoretical program area. The
total mark given for this exercise is derived from a mark given by the staff members and also a mark from the student's self assessment.

Competences
The issue of recording a preclinical and clinical competence has not been fully addressed as yet. At the moment the students record 36 examples of selected representative procedures in a set of clinical diaries. There is a considerable amount of uncertainties and confusion among both some members of the staff and the student body about the role of this diary. The diary is essentially a partial record of clinical achievement, it is not a record of clinical output nor is it clear evidence of competence in areas other than selected clinical procedures. For example it does not establish the students' ability to formulate or deliver effective treatment plans or liaise between the various specialities which may be required to treat the patient comprehensively.

SECTION 18 Other influences

18.1. Foreign languages
Access to the global dental literature was hampered by limited exposure to non-Italian languages.

18.2. Regional oral health needs
Because of its geographic and cultural insularity Sassari provides a fairly unique set of research opportunities particularly in the areas of caries, periodontal disease, malocclusion and cancer epidemiology. It is one of the particular strengths of the institute that these issues have been identified and some of these areas have already been documented and published.

18.3. Evidence based treatment
We felt that this concept was not clearly understood and implemented.

18.4. Involvement in other universities and sport
There is some involvement by some staff members in international research and educational activities but this aspect of academic life needs to be promoted and expanded.

18.5. Recreation
Consistent feedback from the students indicated a heavy load of formal instruction which does not allow for much time for reflection and recreation.

18.7 Labour market perspective
The dentist/patient ratio in the region is higher than that recommended at national levels. There was a strongly held view among the local practising profession whom we met that the market for local dental service is saturated. The number of dentists in the province of Sassari has risen by 62% over the last 10 years, and this is a nationwide
occurrence. The implications of this might be a difficulty for local graduates remaining in the region and working full time.

SECTION 19 Student affairs
During our visit we met with all the students currently in the dental and hygiene courses. We found the students to be a very bright, enthusiastic and highly motivated group who were willing to participate in discussions in a very frank and rational way whilst remaining very supportive and loyal to the institution and the staff. Their contribution to our visit was extremely valuable in certain areas. Our overall impression was that the students were content with their course although they pointed out consistently some areas of problems and deficiencies. These issues have been dealt with in other sections of the report. The students particularly appreciated the advantages of the small class size in terms of teacher/pupil ratio and staff availability for tutoring and counselling. The students were also optimistic about their prospects for future employment and further training. A consistent view was, however, expressed by senior clinical students and recent graduates still at the faculty that they would need additional clinical training in certain disciplines after qualification to equip them for basic dental practice. A Doctorate Course in Preventive Dentistry (3 years) and Postgraduate Course in Pediatric Dentistry (1 year) are available and a new course of specialisation in Oral Surgery (3 year) has just been started this year.

SECTION 20 Research and Publication
The majority of publications listed in the documentation produced for our visit by the dean is in medical fields and of little relevance to dental science. However, considering the size of the staff of the dental school and their other duties the research output is acceptable. We were shown extensive modern and well equipped medical scientific laboratories nearby which dental staff and students have been able to use productively. There seems to be no lack of good will and co-operation between medical and dental staff. We were impressed by some of the junior researches who had made a good use of the unique opportunities for research in the area of epidemiology and genetic studies.

SECTION 21 Quality Development and continuous Improvement Policies/Schemes
We had a strong feeling that the majority of the staff had a desire to improve the curriculum, and the warm reception and fruitful discussions we had during our visit confirm this impression.
SECTION 22  Overall Comments on the School

Strengths
maximum use is made of the facilities and resources
relatively strong biomedical environment to lean on
enthusiasm and leadership
good relationship between staff and students
long term plans to increase the complement of staff by issuing forthcoming retirement
vacancies
the requirement for the students to complete a thesis
changing the "insular attitude"
good access to patients in most disciplines

Weaknesses
inadequate competence in some disciplines
the course takes more than 5 years for 50% of the students
inadequate staffing (teaching and secretarial)
patients' inability to pay for certain types of treatment limits the overall scope of the students' experience

Recommendations (within current resources)
improve competence in periodontics and prosthodontics with improved staffing and emphasis
support enthusiastic junior staff in their development
improve research output especially by utilizing available resources
look critically into the resources spent in the first clinical year as chairside assistants
rationalize the overall clinical time and the number of procedures recorded in the clinical diaries
move towards the concept and facilitation of lifetime learning
improve the consistency of the clinical teaching by reconciling conflicting opinions of teachers
improve the radiology services, the operating theatre and the anaesthetic services by staffing and implementation of better operational policies
increase the use of educational information technology building on the good start already made
expand on the existing international co-operation
promote high quality student thesis
review the distribution of hours with the purpose of a more focused curriculum. It appears to the visitors that the general trend to a general allocation of hours (250) and requirement of operative procedures (36) across the disciplines have not been well founded