



# ORAL11005 Dental Morphology and Microscopic Anatomy

## Term 2 - 2019

Profile information current as at 20/04/2024 05:51 am

All details in this unit profile for ORAL11005 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

## General Information

### Overview

This unit covers key topics which are foundations for preclinical and clinical study in the Oral Health Therapy Course. You will study morphology and development of teeth, basic occlusion and microscopic anatomy of oral structures. The study of distinct features and traits of teeth, in primary and permanent dentitions, will enable you to identify and examine teeth, as well as develop an awareness of root morphology required for primary tooth extractions and periodontal treatment for the adult dentition. The study of the development of teeth and the sequence of eruption and exfoliation will develop your understanding of the changes with age from infancy to adulthood. This knowledge and understanding will also enable you to predict changes in the dentition with age and identify abnormalities in the eruption sequence. The study of dental morphology and occlusion will provide you with an understanding of tooth shape and function that applies to the restoration of natural tooth form. The microscopic study of teeth and oral structures will support your study of dental caries, periodontal disease and oral mucosal diseases.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 9

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Condition: Students must be enrolled in CB29 Oral Health Course to enrol in this unit. Prerequisite: HLTH11027

Foundations of HealthCorequisite: ORAL11004 Oral Anatomy

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

### Offerings For Term 2 - 2019

- Mixed Mode
- Rockhampton

### Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

## Class and Assessment Overview

### Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

### Class Timetable

#### [Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

#### [Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

### Assessment Overview

#### 1. **In-class Test(s)**

Weighting: 25%

#### 2. **Online Quiz(zes)**

Weighting: 25%

#### 3. **Examination**

Weighting: 50%

### Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

## CQUniversity Policies

**All University policies are available on the [CQUniversity Policy site](#).**

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

## Previous Student Feedback

### Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

#### Feedback from Student evaluations and in-class.

##### **Feedback**

Students enjoyed the residential school and felt it was a valuable learning experience. Each year students are given directions on carving a tooth from wax and preparing anatomical drawings of teeth. There are always mixed responses to these activities as some students feel they take up too much time and are not happy about the marks given for the task. While students enjoy the learning activities at residential school they report feeling very stressed by the multi-station practical test.

##### **Recommendation**

Residential school will remain in 2019 as it is an important learning experience. Wax carving and tooth drawing will remain as part of the activities at residential school but as formative assessments only. It is recognized that these activities are time consuming activities, especially when the residential school is only two days long. In 2019 ways of streamlining the tasks will be examined. The multi-station practical test will remain as part of the assessment. Time given for the test and questions included will be reviewed.

#### Feedback from Student evaluations and in-class

##### **Feedback**

Students would like all content for the week to be available at the beginning of the week. With the lecture recorded on Thursdays afternoon, some students felt that they were behind all term as the recording was only available at the end of the week. However students appreciated the weekly study guides, quizzes, sample exam questions and tutorial exercises which were always available at the beginning of each week.

##### **Recommendation**

It is understood that students would like every resource to be in place when they begin their week of study. While it is not possible to schedule all lectures on Mondays, steps can be taken to avoid scheduling lectures later in the week. Before attending or watching the lecture on-line, students are encouraged to read the recommended chapter in the textbook and follow the study guide as these are made available in advance of the scheduled week. Students are reminded that the slides for the lecture will only be uploaded on the day of the lecture to allow for weekly updates. If students still wish to listen to and view a lecture before the scheduled time, a copy of the previous year's recording will be included on a separate page on Moodle.

#### Feedback from Student evaluations

##### **Feedback**

Students felt written assignment was clinically relevant and enjoyed researching topics that were informative and useful. Some students felt they needed more time to complete the assignment and more guidance. Students would like the topics available on week one.

##### **Recommendation**

Although the topics for the written assignment related microscopic anatomy of oral structures to clinical practice and student enjoyed researching these topics, the written assignment will not be part of assessment in 2019. The topics will be covered in the weekly learning material and the written assignment will be replaced by two on-line quizzes in 2019. This change should benefit students' workload.

#### Feedback from Student evaluations and in-class

##### **Feedback**

Student would like the opportunity to participate face-to-face in tutorial exercises, especially to discuss difficult concepts and problem solving activities.

##### **Recommendation**

ORAL11005 is a challenging unit. There are a number of difficult concepts to understand and a number of the questions in the in-class test and final written exam require problem solving abilities. Tutorial exercises will be further developed and students will be encouraged to ask questions in the Q&A forum. Activities at residential school will be reviewed to include a group problem solving activity.

## Unit Learning Outcomes

### On successful completion of this unit, you will be able to:

1. Identify teeth and their occlusal relationships in the primary and permanent dentition in all stages of development from infancy to adulthood
2. Describe features and traits of teeth in the primary and permanent dentition as well as normal sequence of eruption and exfoliation, development and function of occlusion
3. Describe the process of odontogenesis as well as microscopic anatomy of tissues and structures associated with the oral cavity
4. Demonstrate appropriate oral and written communication skills, professional attitudes and ethical behaviours as required of an Oral Health Therapist.

All unit profiles in the Bachelor of Oral Health are made available to the Australian Dental Council for on-going accreditation purposes.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - In-class Test(s) - 25%	•			•
2 - Online Quiz(zes) - 25%		•	•	
3 - Examination - 50%		•	•	

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Communication	•	•	•	•
2 - Problem Solving	•	•	•	•
3 - Critical Thinking	•	•	•	•
4 - Information Literacy	•	•	•	•
5 - Team Work	•			•
6 - Information Technology Competence		•	•	
7 - Cross Cultural Competence				
8 - Ethical practice	•			•

Graduate Attributes	Learning Outcomes			
	1	2	3	4
<b>9 - Social Innovation</b>				
<b>10 - Aboriginal and Torres Strait Islander Cultures</b>				

## Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
<b>1 - In-class Test(s) - 25%</b>	•	•	•	•	•			•		
<b>2 - Online Quiz(zes) - 25%</b>	•	•	•	•		•				
<b>3 - Examination - 50%</b>	•	•	•	•						

## Textbooks and Resources

### Textbooks

ORAL11005

#### Prescribed

#### **Essentials of Oral Histology and Embryology A Clinical Approach.**

Edition: 5th (2019)

Authors: Daniel J. Chiego, Jr.

Mosby, an Imprint of Elsevier Inc

St Louis , Missouri , USA

ISBN: ISBN: 978-0-323-08256-3

Binding: Paperback

ORAL11005

#### Prescribed

#### **Woelfel's Dental Anatomy**

Edition: 9th (2017)

Authors: Rickne C. Scheid and Gabriela Weiss

Wolters Kluwer Health / Lippincott Williams and Wilkins

Philadelphia , Pennsylvania , USA

ISBN: ISBN: 9781496320223

Binding: Paperback

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

## Referencing Style

All submissions for this unit must use the referencing styles below:

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Ceinwen Fay** Unit Coordinator  
[c.m.fay@cqu.edu.au](mailto:c.m.fay@cqu.edu.au)

## Schedule

### Week 1 - 15 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Dental Morphology: <ul style="list-style-type: none"><li>• Basic terminology to describe tooth morphology</li><li>• Dental notation.</li></ul>	Scheid, RC & Weiss, G 2017, <i>Woelfel's Dental Anatomy</i> 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA. Chapter 1.	

### Week 2 - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Morphology of the Permanent teeth: <ul style="list-style-type: none"><li>• Permanent incisors</li><li>• Permanent canines</li><li>• Permanent premolars</li><li>• Permanent molars</li></ul>	Scheid, RC & Weiss, G 2017, <i>Woelfel's Dental Anatomy</i> 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA. Chapters 2-5.	

### Week 3 - 29 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Morphology of teeth in the Primary Dentition: <ul style="list-style-type: none"><li>• Incisors</li><li>• Canines</li><li>• Molars</li></ul>	Scheid, RC & Weiss, G 2017, <i>Woelfel's Dental Anatomy</i> 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA. Chapter 6.	

### Week 4 - 05 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Periodontal anatomy for permanent teeth and Dental Anomalies <ul style="list-style-type: none"><li>• Anatomy of the Periodontium, clinical appearance and morphology</li><li>• Variations in number of teeth</li><li>• Variations in crown and root morphology</li><li>• Abnormalities of enamel and dentine.</li></ul>	Scheid, RC & Weiss, G 2017, <i>Woelfel's Dental Anatomy</i> 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA. Chapters 7 and 11.	First Assessment Quiz. Weeks 1-4

### Week 5 - 12 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Functional Occlusion and Malocclusion:

- Features of the ideal occlusion
- Positions of the teeth in MIP and CR
- Movements of the mandible
- Angle's classification of malocclusions
- Dental and skeletal malocclusions

Scheid, RC & Weiss, G 2017, *Woelfel's Dental Anatomy* 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA.  
Chapter 1. Section VIII and 9.

First Assessment Quiz opens

### Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 6 - 26 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Introduction to Embryology and Microscopic Anatomy

- Review the structure and function of Cells, Tissues, Organs and Organ systems
- Origin of human tissue
- Development of the oral facial region
- Development of the face and palate

Chiego, DJ 2019, *Essentials of Oral Histology and Embryology, A Clinical Approach*. 5th Edn. Mosby, an Imprint of Elsevier Inc. St Louis, Missouri, USA. Chapters 1-4.

### Week 7 - 02 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Two-day Compulsory Residential School- Rockhampton campus

- Teeth drawing
- Teeth carving in wax
- Creating a plaster model of a giant tooth in the prosthetic lab
- Anatomy tutorials
- Multi-station anatomy practical in-class test

Scheid, RC & Weiss, G 2017, *Woelfel's Dental Anatomy* 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA.  
Chapter 13.

**In-Class Test** Due: Week 7  
Wednesday (4 Sept 2019) 5:00 pm AEST

### Week 8 - 09 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Development and eruption of teeth

- Development and growth of the teeth

- The process of tooth eruption and shedding
- Sequence of eruption and exfoliation

Scheid, RC & Weiss, G 2017, *Woelfel's Dental Anatomy* 9th Edn, Wolters Kluwer Health / Lippincott Williams and Wilkins Philadelphia, Pennsylvania, USA.  
Chapter 6. Pages 185-192.  
Chiego, DJ 2019, *Essentials of Oral Histology and Embryology, A Clinical Approach*. 5th Edn. Mosby, an Imprint of Elsevier Inc. St Louis, Missouri, USA. Chapters 5 and 6.

### Week 9 - 16 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Microscopic Anatomy

- Alveolar process
- Periodontal ligament
- Cementum

Chiego, DJ 2019, *Essentials of Oral Histology and Embryology, A Clinical Approach*. 5th Edn. Mosby, an Imprint of Elsevier Inc. St Louis, Missouri, USA. Chapters 11 and 12.

### Week 10 - 23 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Microscopic Anatomy  
 • Enamel  
 • Dentine

Chiego, DJ 2019, *Essentials of Oral Histology and Embryology, A Clinical Approach*. 5th Edn. Mosby, an Imprint of Elsevier Inc. St Louis, Missouri, USA. Chapters 7 and 8.

### Week 11 - 30 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Microscopic Anatomy • Pulp Tissue • Oral Mucosa • Salivary Glands	Chiego, DJ 2019, <i>Essentials of Oral Histology and Embryology, A Clinical Approach</i> . 5th Edn. Mosby, an Imprint of Elsevier Inc. St Louis, Missouri, USA. Chapters 9 and 10.	

### Week 12 - 07 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
Revision of microscopic anatomy.	Chiego, DJ 2019, <i>Essentials of Oral Histology and Embryology, A Clinical Approach</i> . 5th Edn. Mosby, an Imprint of Elsevier Inc. St Louis, Missouri, USA. Chapters 1-10.	Second Assessment Quiz opens  <b>Online quizzes</b> Due: Week 12 Friday (11 Oct 2019) 5:00 pm AEST

### Review/Exam Week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic

### Exam Week - 21 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

The required textbook for ORAL11004 will be used as a reference text for this unit.

## Assessment Tasks

### 1 In-Class Test

#### Assessment Type

In-class Test(s)

#### Task Description

For this assessment you will be asked to complete a multi-station In-Class test during the compulsory residential school. There will be numbered stations with a range of anatomical models, teeth, radiographs and pictures. You will move from station to station at timed intervals and answer questions at each station. You will be required to identify teeth and features of dental morphology at each station. The knowledge assessed in this in-class test is essential to the practice of an Oral Health Therapist. All questions included in this test have clinical applications.

#### Assessment Due Date

Week 7 Wednesday (4 Sept 2019) 5:00 pm AEST

The test will take place on the last day of the compulsory residential school.

#### Return Date to Students

Week 7 Wednesday (4 Sept 2019)

Feedback on the correct answers will be given following the test.

#### Weighting

25%

#### Assessment Criteria

The percentage of your final mark is 25%.

You must complete this assessment to pass the unit.

The assessment will be conducted under examination conditions and will be a closed book examination.

This is a written test where you will be asked to name and identify teeth and features of dental morphology at multiple



stations within a time limit.

The assessment will be conducted during the compulsory residential school on Wednesday 4th September 2019. Feedback on the correct answers will be given directly after the test.

### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

### Submission

Offline

### Submission Instructions

Students will submit their answers to the In-class test on an answer sheet.

### Learning Outcomes Assessed

- Identify teeth and their occlusal relationships in the primary and permanent dentition in all stages of development from infancy to adulthood
- Demonstrate appropriate oral and written communication skills, professional attitudes and ethical behaviours as required of an Oral Health Therapist.

### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Ethical practice

## 2 Online quizzes

### Assessment Type

Online Quiz(zes)

### Task Description

There will be two separate quizzes to assess your knowledge of dental morphology and microscopic anatomy with a focus on terminology. The quizzes include questions from weekly formative quizzes and new questions in multiple choice and matching formats. As preparation for the assessment quizzes you are strongly encouraged to complete weekly formative quizzes.

The first assessment quiz will include 40 questions. This quiz is worth 10% and will open at the beginning of week five. The second assessment quiz will have 60 questions. This quiz is worth 15% and will open at the end of week twelve. Both quizzes close 5.00 pm Friday 11th October 2019.

### Number of Quizzes

2

### Frequency of Quizzes

Other

### Assessment Due Date

Week 12 Friday (11 Oct 2019) 5:00 pm AEST

Marks will be available upon completing the assessment task.

### Return Date to Students

Week 12 Friday (11 Oct 2019)

Online feedback will be given directly after the quizzes are closed.

### Weighting

25%

### Minimum mark or grade

50%

### Assessment Criteria

The percentage of your final mark is 25%.

You must complete both quizzes to pass the unit.

The quizzes may be conducted with open-books.

The quizzes are completed on-line in Moodle within a time limit.

Feedback will be given directly after the quizzes are closed. Questions will be automatically marked correct or incorrect.

The maximum score (25) that can be accumulated from the two online quizzes equals 25% of the total marks. The 50%

minimum mark requirement is on the cumulative score of the two quizzes.

### **Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)
- [Harvard \(author-date\)](#)

### **Submission**

Online

### **Submission Instructions**

Quizzes will be completed online through the unit Moodle site.

### **Learning Outcomes Assessed**

- Describe features and traits of teeth in the primary and permanent dentition as well as normal sequence of eruption and exfoliation, development and function of occlusion
- Describe the process of odontogenesis as well as microscopic anatomy of tissues and structures associated with the oral cavity

### **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

## **Examination**

### **Outline**

Complete an invigilated examination.

### **Date**

During the examination period at a CQUniversity examination centre.

### **Weighting**

50%

### **Length**

180 minutes

### **Minimum mark or grade**

50%

### **Exam Conditions**

Closed Book.

### **Materials**

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

## Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

### What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

### Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

### Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

### What can you do to act with integrity?



#### Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



#### Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



#### Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem