



COURSE OUTLINE

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Course Name: Dental Technology Foundations

Department Head/Coordinator: Allan White

Effective Date: September 2014

School or Centre:		Department:	
School of Health Sciences		Denturist/Dental Technology Department	
Course History:		Year of Study:	
Replacement Course		1st Year Post-secondary	
Name of Replacing Course (if applicable):	DENT 1870, DENT 1871, DENT 1872, DENT 2005	Course Number:	DENT 1100
		Number of Credits:	11.0

Course Pre-requisites (if applicable):

Program Admissions Requirements

Course Co-requisites (if applicable):

all semester one courses

PLAR (Prior Learning Assessment & Recognition) No Yes (details below):

Course Description:

Students will learn the foundational knowledge, laboratory skills and techniques required to support the design and fabrication of single metal fixed restorations, removable partial and complete dentures, and simple fixed and removable orthodontic appliances.

Note to instructors: An instructional strategy is an approach that an instructor uses to achieve the learning outcomes (e.g., lecture, case study, video, group work).

Instructional Strategies:

Lectures, seminars, case study analysis, demonstrations, project work and, laboratory practical experience

Course Learning Outcomes:

Upon successful completion of this course, the student will be able to:

1. Describe reasons for the provision of fixed and removable prosthetics and orthodontic appliances, their limitations and contra-indications;
2. Identify the components of simple fixed and removable prosthetics, and orthodontic appliances;
3. Integrate general knowledge of dental laboratory procedures, physics and chemistry principles, associated with the fabrication of oral appliances and dental restorations;
4. Describe the characteristics and properties of dental materials associated with the fabrication of simple oral appliances and dental restorations and make decisions about their appropriate application in practice;
5. Describe the characteristics and operation of equipment and special instrumentation associated with the fabrication of simple oral appliances and dental restorations and make decisions about their application in practice;
6. Assess and apply the fundamental elements and relevant knowledge of dental anatomy, dental physiology, dental morphology to dental technology practice;
7. Practice to current workplace health and safety standards including dental laboratory asepsis, and infection control;
8. Utilize the techniques and skills to design and fabricate simple prosthetics and orthodontic appliances;
9. Apply essential elements and skills of behavioural sciences, communications, professional ethics, legal obligations and business management to dental technology practice.

Program Learning Outcomes:

The graduate of the VCC Dental Technology program will have the skills and abilities to:

1. Design, fabricate, modify and repair removable oral/dental prostheses;
2. Design, fabricate, modify and repair fixed oral/dental prostheses;
3. Design, fabricate, modify and repair oral/dental appliances used in orthodontics, oral and maxillo-facial surgery and other dental treatments;
4. Integrate general knowledge of dental laboratory procedures, physics and chemistry principles, associated with the fabrication of oral appliances and dental restorations;
5. Assess the characteristics and properties of dental materials associated with the fabrication of oral appliances and dental restorations and make decisions about their appropriate application in practice;
6. Assess the characteristics and operation of equipment and special instrumentation associated with the fabrication of oral appliances and dental restorations and make decisions about their appropriate application in practice;
7. Assess the fundamental elements of dental anatomy, dental physiology, dental morphology and basic elements of oral pathological conditions and apply relevant knowledge to dental technology practice;
8. Practice to current workplace health and safety standards including dental laboratory asepsis, and infection control;
9. Apply essential elements and skills of behavioural sciences, communications, professional ethics, legal obligations and business management to dental technology practice;
10. Make decisions that reflect critical thinking and problem solving; integrate pertinent theoretical knowledge and empirical data and information literacy skills to justify and/or revise services.

Evaluation/Grading System *(Click on drop down box arrows to see list of options)*

Grading System	Specify if 'Other':	Specify Passing Grade:
Letter Grades		C+ 64%

Components and Weighting of the Assessment/Evaluation Plan: *(Click on drop down box arrows to see list of options)*

Type	Percentage	Evaluation Plan (provide a brief explanation for each component especially if value exceeds 35%):
Midterm Exam	35	written exam-multiple choice, short & long answer
Assignments	30	written case study
Final Exam	35	written exam multiple choice, short & long answer
Lab Work		Practical Projects (5) Grade will be Satisfactory (S) or Unsatisfactory (U) utilizing competency rubrics
		Students must earn an "S" grade in all projects to pass this course
	Total	100

Learning Environment/Type *(Select all that are used within the course)*

Instruction Type	Hours Per Instruction Type	Comments
L - Classroom	150	
B - Lab (Computer, Chemistry...)	150	
E - Seminar	30	
Enter Total Hours	330	

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

Course Topics and Sequence Covered:

Basic techniques, skills and concepts of design and fabrication:
Fixed prosthetics (crown & bridge, ceramics)
Removable prosthetics (complete & partial)
Orthodontic appliance Skills, Materials and Techniques.
Biomechanics of tooth movement
Basic wire bending skills and exercises
Metal joining theory: solder, flux, soldering, and spot and laser welding
Basic soldering skills and exercises
Design and fabrication of simple vaccu-formed/pressure formed appliances
Design and fabrication of acrylic appliance base
Introduction to dental laboratory production and proficiency:
Principles of occlusion and articulation;
Principles and techniques related to the design, fabrication and correction of simple restorations and appliances
Mixing plaster and fabricating dental casts
Custom trays, form and function;
Principles of using articulators for setting up the casts

VCC Education and Education Support Policies

There are a number of **Education** and **Education Support** policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at:

<http://www.vcc.ca/about-vcc/policies/index.cfm>

To find out how this course transfers, visit the BC Transfer Guide at www.bctransferguide.ca.

FOR COMMITTEE USE ONLY

Date Approved by Education Council:		Date Approved by VCC Board (if applicable):	
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