



COURSE OUTLINE

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Course Name: Orthodontics 2

Department Head/Coordinator: Allan White

Effective Date: Sept 2014

School or Centre:		Department:	
School of Health Sciences		Denturist/Dental Technology Department	
Course History:		Year of Study:	
Replacement Course		2nd Year Post-secondary	
Name of Replacing Course (if applicable):	DENT 3003	Course Number:	DENT 2360
		Number of Credits:	3.0

Course Pre-requisites (if applicable):

All semester two courses

Course Co-requisites (if applicable):

DENT 2320

PLAR (Prior Learning Assessment & Recognition)

No Yes (details below):

Course Description:

As a continuation of Orthodontics 1, students will fabricate more compound or complex fixed and removable orthodontic appliances as prescribed. This course expands upon the theory base of the previous semesters and will enhance the students' ability to design appliances, problem-solve and self-evaluate. Maintenance of the previously achieved orthodontic competencies will be expected. Students are assessed to level 2 production proficiency standards.

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:

Lecture, demonstration, laboratory project work, practical hands on experience with skill and technique, working with objective, subjective case evaluations (OSCEs)

Course Learning Outcomes:

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

1. Assess knowledge of the fundamental elements of dental and occlusal anatomy and physiology and dental morphology and basic elements of oral pathological conditions and apply relevant knowledge to the design and fabrication of orthodontic appliances;
2. Integrate general knowledge of dental laboratory procedures, physics and chemistry principles, associated with the fabrication of oral appliances and dental restorations;
3. 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;
4. Assess, plan and make decisions relating to the design and fabrication of orthodontic appliances using the following concepts: cephalometrics; traditional and digital CAD; active force components, anchorage;
5. Describe basic concepts to design and fabricate orthodontic appliances including: Hawley retainer with soldered labial bow, Schwartz appliance, night guards and splints, temporomandibular joint (TMJ) appliances as prescribed, invisible retainers; minor tooth movement (MTM) and CAD-CAM, Habit appliances, expansion appliances, removable appliances with anterior/posterior bite planes;
6. Implement skills and techniques to design and fabricate orthodontic appliances including: Hawley retainer with a soldered labial bow, Schwartz appliance, hard acrylic night guard, heat processed thermoplastic nightguard and Essex retainer; Essex retainer with minor tooth movement (MTM);
7. Practice to current workplace health and safety standards including dental laboratory asepsis, and infection control.

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	Assignment-technique and skill assessment
Final Exam	35	Written exam-multiple choice, short long answer
		Practical Projects (x3) 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
B - Lab (Computer, Chemistry...)	70	
L - Classroom	10	
E - Seminar	10	
Enter Total Hours	90	

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:

Hawley retainer with soldered labial bow
Removable appliances with anterior/posterior bite planes
Invisible retainers and minor tooth movement (MTM)
Invisible retainers (CAD-CAM)
Expansion appliances
Schwartz appliance
Hard acrylic nightguard
Heat processed thermoplastic night guard
Repair and modifications of orthodontic appliances
Active Force components
Anchorage
Cephalometrics; traditional and digital CAD
Habit appliances that may be required as orthodontic treatment
Restoration

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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