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# DENT 1170: Dental Laboratory Patient Care 1

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## EFFECTIVE DATE

September 2021

## DEPARTMENT

Dental Tech

## DESCRIPTION

This course reviews the basic concepts of chemistry and physics as it pertains to dental laboratory technology, materials, instruments and equipment. Students will learn key health and safety and quality management skills. Students will learn about hygiene and health promotion to avoid infection and cross-contamination in a dental laboratory environment.

## CREDITS

1.0

## YEAR OF STUDY

1st Year Post-secondary

## PREREQUISITES

None

## COREQUISITES

None

## COURSE LEARNING OUTCOMES

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

- Describe the general laboratory materials related to the fabrication of various types of dental prostheses.
- Describe the characteristics, physical and mechanical properties, and classification of materials used in the practice of Dental Technology.
- Describe the safe handling and application of materials used in the practice of dental technology.
- Identify the potential dangers in laboratory associated with the use of dental materials, laboratory equipment, and other potentially biohazardous materials.
- Explain the basic procedures for proper handling and control of hazardous materials.
- Outline current workplace health and safety standards including dental laboratory asepsis, and infection control.

- Describe the significance of chemical, physical and mechanical properties of polymers and resins.
- Recognize the relevance of biocompatibility in regards to dental materials.
- List the different types of dental waxes and impression materials.
- Describe the significance of polymerization.
- Recognize the various types and composition of dental ceramics.

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 30

## INSTRUCTIONAL STRATEGIES

Lectures, seminars, demonstrations, case scenario analysis, project work

## GRADING SYSTEM

Letter Grade (A-F)

## PASSING GRADE

C+ (64%)

## EVALUATION PLAN

Type	Percentage	Assessment activity
Midterm Exam	20	Multiple choice, short and long answer
Project	20	Presentation / Research Paper
Quizzes/Tests	20	Quizzes/Tests\\n
Final Exam	30	Written exam multiple choice, short and long answer
Participation	10	

## COURSE TOPICS

- Introduction to dental materials, equipment and instruments relevant to dental technology
- WHMIS (Workplace Hazardous Material Information System) & dental materials and medical device

restrictions under regulatory authority of the Health Protection Branch of Health Canada

- WorkSafe BC Rules and Safety and Emergency Response
- Infection control
- Protective equipment/devices
- Monomers, Polymers & Co polymers
- Classifications of materials used in the design, fabrication, and repair of dental prostheses and appliances
- Dental Materials Components
- Polymers, surface energy & bonding
- Biocompatibility of Dental Materials
- Dental Waxes & Impression Materials
- Ceramics and Zirconia

## LEARNING RESOURCES

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

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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### Broadway campus

1155 East Broadway  
Vancouver, B.C. Canada  
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### Downtown campus

250 West Pender Street  
Vancouver, B.C. Canada  
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### Annacis Island campus

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