DA 1 COURSE OUTLINE

Instructors: **Judith Nelson** **Lois Parento**
Roxanne Boriack **Barbara Pope**

Office Hours: Judith Nelson - Monday 10:00 a.m. – 12:00 p.m.
Friday 9:00 a.m. – 10:00 a.m.

Lois Parento – Monday 10:00 a.m. – 11:00 a.m.
Wednesday 1:30 p.m. – 2:30 p.m.
Friday 11:00 a.m. – 12:00 p.m.

Office Location: DA 10

Attendance: Attendance to each and every class in the Dental Assisting Program is mandatory. If you are absent or late, you must call this department, **638-0370**. The program policies outlines procedures for all make up work.

Appearance: During lecture and laboratory classes, correct uniform will be worn, hair will be up in the appropriate manner, and minimum jewelry will be worn (as outlined in the program policies) **or you will not be allowed into the classroom until you are in compliance.**

GRADING

Each assignment, examination, and lab project has an assigned point value. The student's grade is determined based on total points earned out of the total points possible.

$$\frac{\text{Total points you earned}}{\text{Total points possible}} = \text{your \% earned}$$

90 – 100% of total points	= A
80 – 89 %	= B
70 - 79 %	= C
60 – 69%	= D
0 - 59%	= F

PERSONAL COMMUNICATION DEVICES (TAPE RECORDERS, CELL PHONES & PAGERS) ARE NOT ALLOWED IN THE CLASSROOM

FINAL DROP DATE IS FRIDAY OCTOBER 15, 1999

DA 1
SCHEDULE
- Fall 1999-
LAB A

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 8:50		Intro to DA lecture Pope			8:30 Chairside Lab A
9:00 - 9:50	Operative Lecture Parento	↓	Radiology Lecture Nelson	Chairside Lecture Parento	Parento
10:00 - 10:50	↓	Radiology Lab A Nelson	↓	↓	↓
11:00 - 11:50	LUNCH	↓	Chairside Lecture Nelson	Chairside Lab A Nelson	Lunch
12:00 - 12:50	Radiology Lecture Nelson	↓	↓ Lunch @ 12:30	↓	Biodental Lecture Boriack
1:00 - 1:50	↓	Lunch	1:30 Operative Lecture Parento	1:30 Lunch	↓
2:00 - 2:50	Biodental Lecture Boriack	Operative Lab A Parento	↓	Operative Lab A Parento	Radiology- Lab A Boriack
3:00 - 3:50	↓	↓		↓	↓
4:00 - 4:50		↓ ↓			↓

DA 1
SCHEDULE
- Fall 1999-
LAB B

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 8:50		Intro to DA lecture Pope			Radiology Lab B Boriack
9:00 - 9:50	Operative Lecture Parento	↓	Radiology Lecture Nelson	Chairside Lecture Parento	↓
10:00 - 10:50	↓	Operative Lab B Parento	↓	↓	↓
11:00 - 11:50	LUNCH	↓	Chairside Lecture Nelson	Operative Lab B Parento	Lunch
12:00 - 12:50	Radiology Lecture Nelson	↓	↓ Lunch @ 12:30	↓	Biodental Lecture Boriack
1:00 - 1:50	↓	Lunch	1:30 Operative Lecture Parento	Lunch	↓
2:00 - 2:50	Biodental Lecture Boriack	Radiology Lab B Nelson	↓	Chairside Lab B Nelson	Chairside - Lab B Parento
3:00 - 3:50	↓	↓		↓	↓
4:00 - 4:50		↓ ↓		4:30	4:30

K I N G S R I V E R C O M M U N I T Y C O L L E G E

C R E D I T C O U R S E O U T L I N E

(1) DA 1 (Number) (2) DENTAL ASSISTING (Title) (3) 23 (Units)

(4) Semester Course:
Hours per week: Lec. 17
Lab. 16

Short-term Course:
Hours per course Lec. _____
Lab. _____

(5) Grading Basis:
Grading scale only X
CR/NC option _____
CR/NC only _____

(6) Entrance Skills/Basic Skills
Prerequisites: _____
_____
_____
Advisories: Elig. for Engl 25 & 26

(7) Subject Prerequisites/
Corequisites: _____
_____
_____
Advisories: _____
_____
_____

(8) Classification (check those appropriate):
Credit: Degree applicable X
Credit: Non-degree applicable
Pre-collegiate basic skills ____

(9) Kings River Community College:
General education _____
Graduation requirement _____
Major category Dental Assisting

(10) California State Universities:
General education:
(Use CSU designator) No
Baccalaureate: No

(11) Variable Units: No

(12) Repeatable: (A course may be repeated three times) No
Please complete "Request for Course Repeatibility"
_____

OFFICE USE ONLY

CATID# _____ TOPS# _____
V.E.A. SAM Priority _____ ORG # _____

(13) Catalog Description:

History of the dental profession including the educational requirements and the ethical and legal responsibilities of each member of the dental team. Patient management techniques including human relations. History and principles of radiology. Complete oral examination procedures. The written and pre-clinical experience required by the Board of Dental Examiners in partial fulfillment of the radiation safety licensing qualifications. (Radiology section may not be taken during pregnancy.) Principles of chairside assisting. Instruction in operative dental procedures. Emphasis on preclinical application of intraoral procedures delegated in the California State Dental Practice Act. Head and neck anatomy.

Originator(s): _____	Date: _____	Approvals:	Signature	Date
Department Chair: _____	_____	Curriculum Committee Chair:	_____	_____
Associate Dean: _____	_____			
Dean of Instr.: _____	_____	Dean of Instr:	_____	

DA 1
COURSE TITLE AND NUMBER

I. COURSE OUTCOMES/OBJECTIVES:

List major objectives in terms of the observable knowledge and/or skills to be attained as a result of completing this course.

A. Radiology I:

The student will:

1. Be able to identify developmental disturbances of the teeth and supporting bone, and pathological lesions apparent on radiographs.
2. Demonstrate the skills necessary to expose, process, mount and evaluate radiographic surveys taken on manikins and out patients for diagnostic quality.
3. Explain and practice the theory of radiation safety and hygiene. Describe the ALARA concept, describe and practice effectively procedures for radiation protection for operator and patient, and describe methods of monitoring radiation exposure to operators.
4. Complete the didactic and preclinical experience as outlined by the California State Board of Dental Examiners for partial fulfillment of the radiation safety certification qualification.
5. Demonstrate adequate knowledge, technical skills and the per clinical competency to make sound judgments in the utilization of dental intra-oral radiography.
6. Conduct a complete oral examination including recording of all data on appropriate forms and recognition of normal vs. abnormal tissue appearance.
7. Describe the properties of x-radiation and explain how cumulative effects damage the body tissues.
8. Describe and demonstrate barriers to infection including operator attire, equipment barriers/wraps.
9. Describe and demonstrate appropriate infection control procedures when preparing the operatory for a patient, exposing radiographs on patients, and in manual and automatic processing of radiographs.
10. Identify all landmarks or structures normally seen on radiographs of maxillary and mandibular tooth areas.
11. Describe and demonstrate correct film placement for periapical, occlusal, and bitewing exposures.
12. Describe paralleling technique and bisecting the angle technique for radiographic exposures.
13. correctly identify and correct errors in technique in exposed radiographs, including incorrect packet placement, cone cut, incorrect vertical and horizontal angulation.
14. Identify dental film sizes and describe their recommended uses.
15. Identify dental x-ray machine components and demonstrate their functions.
16. Use the Department of Health and Human Service guidelines for prescribing radiographs in determining a patient's need for radiographs.
17. Identify the terms used to measure radiation.
18. Recognize and describe the radiographic appearance of all structures of teeth and the alveolus.

19. Complete two sets bitewings on DXTTR; one set bitewings on an outpatient; two full mouth series on DXTTR; one full mouth series on an outpatient; one mouth mirror inspection on an outpatient.

B. Chairside Assisting 1:

The student will:

1. Demonstrate skills needed to assist the dentist at chairside utilizing four-handed dentistry techniques in team concepts; instrumentation and maintaining the operating field.
2. Practice appropriate management skills and utilize aseptic techniques while performing chairside tasks.
3. Identify, select and organize instruments and equipment for specific dental procedures.
4. Define physical, chemical and mechanical properties of selected dental materials.
5. Evaluate the influence variables of manipulation have on the properties.
6. Modify manipulative techniques to reduce adverse effects on the properties of the material being manipulated.
7. Interpret and comply with instructor/manufacturer instructions while manipulating selected dental materials.
8. Demonstrate skills necessary to perform selected laboratory and clinical dental procedures, i.e., instrument exchange, tray set up, alginate, gypsum infection control and sterilization, safety and patient management.
9. Practice safety precautions while performing laboratory and clinical dental procedures.
10. Practice the principles of professionalism by conforming to appearance standards, also using universal precautions when performing any tasks on patients. The student will comply with classroom hours and complete assigned tasks and participate in the classroom activities with a cooperative attitude.
11. Complete assigned projects, complete minimum three evaluation with a grade of 75% or better.
12. Be able to take impression of maxillary and mandibular arches for diagnostic and opposing models which have adequate extension and detail, without distortion.

C. Operative Instruments and Materials

The student will:

1. Define chemical, physical and mechanical properties of selected dental materials.
2. Evaluate the influence variables of manipulation have on the properties.
3. Interpret and comply with instructor/manufacturer instructions while manipulating selected dental materials.
4. Identify and differentiate among selected dental materials their chemistry, uses, manipulation and application.
5. Identify and describe deep base, insulating base, temporary restoration, and select the appropriate cement/s for each.
6. Demonstrate established safety protocols while performing experiment and pre-clinical procedures, i.e., mercury hygiene protocols, deep base, insulating base, matrix, temporary sedative restoration.
7. Select and correctly use the appropriate armamentaria and materials required to perform assigned experiment and pre-clinical procedures.
8. Demonstrate established manipulative technique and application of selected dental materials.

9. Demonstrate skills necessary to perform selected preclinical laboratory procedures, i.e., cements, deep base, varnish, insulating base, matrix, temporary sedative, dressing, prepare amalgam, composite.
10. Complete assigned projects. Complete a minimum of three evaluations, each project, with a grade of 75% of better.
11. Identify selected handcutting and rotary instruments.
12. Identify uses of selected handcutting and rotary instruments.
13. Describe care and sterilization of handcutting and rotary instruments.
14. Identify various handpieces and choose the correct shank style for each.
15. Differentiate washed field and dry field techniques.
16. Demonstrate O.S.H.A. guidelines for handling hazardous materials, i.e. , mercury.
17. Demonstrate mercury hygiene protocols.
18. Demonstrate competence in personal use of protective barriers, i.e., gloves, masks, shield, and eyewear.

D. Biodental I

The student will:

1. Identify designated landmarks of the face, oral cavity, and skull.
2. Identify origin and insertion of muscles of mastication and describe the action(s) of each.
3. Identify origins of nerves and blood vessels that supply specific areas of the head and neck.
4. Define selected dental terms including prefixes, suffixes and roots.
5. List the function of each tissue of the tooth and periodontium and correctly label these tissues on a diagram.
6. Recognize and describe functional tooth groups and designated odontographical landmarks using correct dental terminology.
7. Classify the occlusion of selected study models of permanent and mixed dentition utilizing the angle method.
8. Identify and label selected cavity preparations.
9. Chart existing lesions and restorations utilizing designated symbols and a two-color system.
10. Recognize normal versus abnormal tissue appearance.

E. Introduction to Dental Assisting

The student will:

1. Identify the members of the dental health team.
2. Identify the requirements for education, licensing and license renewal for each member of the dental health team, as stated in the California Dental Practice Act.
3. Identify the duties delegated in the California Dental Practice Act, to auxiliary dental health team members.
4. Identify the level of dentist supervision required for each duty.
5. Differentiate between legal duties and ethical responsibilities and relate them to malpractice issues.
6. Explain the standard of care; implied and informed consent; prudent man.
7. Identify and explain the structure and purposes of professional dental organizations.
8. Identify demeanor, appearance, and personal qualities of a professional dental auxiliary. Conform to professional standards while in the classroom and clinical training facilities.

9. Identify and evaluate personality types and relate their individual type to interpersonal communications and patient management.
10. Differentiate between verbal and nonverbal communication and relate each to the communication cycle.
11. Identify types of human behavior and defense mechanisms and describe the dental assistant's role in patient behavior modification.
12. Identify selected special patients and describe appropriate patient management skills for each.
13. Purchase malpractice insurance by becoming a student member of the American Dental Assistants Association.
14. Purchase a copy of the California Dental Practice Act.

COURSE OUTLINE - Dental Assisting 1

A. Radiology I

1. Introduction, characteristics of radiation, and dental unit **Lecture Hours: 4**
   a. Discovery of Roentgen Ray, and early progress
   b. Modern use of dental radiography
   c. Types and characteristics of radiation
   d. Properties of x-radiation and electromagnetic spectrum
   e. X-radiation production, primary and secondary
   f. Ionization
   g. Parts and components of the x-ray unit
   h. Amperage, voltage, transformer, and control devices
2. Technical aspects of radiation production **Lecture Hours: 3**
   a. Principles of x-ray tube operation
   b. Significance of electron activity
   c. Requirements of good radiographs
   d. Variable radiation control factors
   e. Effects of milliamperage, kilovoltage and exposure time
   f. Effects of variation in distances
3. Effects of radiation exposure, hygiene and protection **Lecture Hours: 10**
   a. Interaction of ionizing radiation on cells, tissue and matter
   b. Cell sensitivity to radiation exposure
   c. Factors that determine radiation exposure
   d. Effects of radiation exposure, somatic and genetic tissue
   e. Laws regulating the use of diagnostic radiation tissue
   f. Personnel monitoring
   g. Effects of collimation and filtration and the amount of an exposure dose rate
   h. Measurement of x-radiation, terms and definitions
   I. Radiation protection in the dental office, patient and personnel
   j. Chronic and acute dose, definition and symptoms
   k. Effects of oral radiation therapy
   l. Importance of patients medical history as related to previous experience
   m. Equipment and structural requirements
   n. Quality control
4. Dental films, principles of shadow casting, anatomical landmarks **Lecture Hours: 8**

a. Composition of dental film
b. Film emulsion speeds
c. Types and sizes of dental films, intra and extra-oral
d. Film protection and storage
e. Film mounting procedures
   1) mounts
   2) mounting
f. Factors influencing radiographic definition and distortion, geometry and imagery
g. Principles of shadow casting
h. Anatomical landmarks visible on intra-oral films
   1) normal radiographic anatomy
   2) radiographic tooth anatomy
   3) tooth development
   4) basic restoration
   5) anatomy of maxilla and mandible
I. Evaluating films for diagnostic quality
j. Filing and storage of films

5. Dental film processing **Lecture Hours: 5**
   a. Fundamentals of film processing
   b. Darkroom equipment and illumination **Laboratory Hours: 6**
   c. Chemistry of processing
   d. Processing procedure - manual
   e. Processing procedure - automatic
   f. Maintaining processing tanks and automatic processor
   g. Rapid processing
   h. Film duplicating procedure
   I. Quality control
   j. Processing errors and artifacts
   k. Operation of the view box

6. Intraoral techniques and film holding devices **Lecture Hours: 5**
   a. Intraoral procedures, patient positioning
   b. Principles of the paralleling technique **Laboratory Hours: 3**
   c. Principles of the bisecting technique
   d. Horizontal and vertical angulation
   e. Snap-a-ray, XCP, Fitzgerald technique, biteblocks
   f. Disinfection and sterilization of dental radiographic equipment
   g. Manipulation of the DXTTR manikins

7. The interproximal or bitewing examination **Lecture Hours: 2**
   a. Fundamental of the bitewing examination
   b. Film holders **Laboratory Hours: 18**
   c. Film positioning
   d. Anterior and posterior surveys
   e. Alignment of the PID and horizontal angulation
   f. Exposure, processing and mounting of the bitewing survey on DXTTR

8. The periapical examination **Lecture Hours: 2**
   a. Fundamental of the periapical examination
   b. Film holders **Laboratory Hours: 18**

c. Correct film placement techniques
d. Sequence of exposure
e. Periapical exposures - paralleling technique
f. Periapical exposures - bisecting technique
g. Exposure, processing, mounting of full mouth surveys on DXTTR

9. Interpretation of films for diagnostic quality **Lecture Hours: 3**
a. Importance of identifying faulty radiographs **Laboratory Hours: 3**
b. Technique errors:
1) incorrect film positioning
2) incorrect horizontal angulation
3) incorrect vertical angulation
4) incorrect PID positioning
5) incorrect exposure factors
6) miscellaneous errors
c. Processing errors
1) incorrect time - temperature
2) faulty handling of films
3) chemical contamination
4) light leaks
d. Fog on film
1) film storage
2) exposure settings
3) fog caused during processing

10. The occlusal examination **Lecture Hours: 1**
a. Reasons for the occlusal exam.
b. Technical considerations **Laboratory Hours: 3**
c. Maxillary occlusal examination
d. Mandibular occlusal examination
e. Localization techniques
f. Occlusal surveys for children

11. Radiography for children **Lecture Hours: 1**
a. Importance of radiography for children
b. When to take radiographs on children
c. Techniques for pedodontic radiography
d. Film requirements for pedodontic surveys
e. Interproximal and bitewing exams
1) posterior interproximal surveys
2) mandibular incisor surveys
3) mandibular canine surveys
4) mandibular molar surveys
5) maxillary incisor surveys
6) maxillary canine surveys
7) maxillary molar surveys

12. Radiography for edentulous patients **Lecture Hours: 1**
a. Importance of radiography for edentulous
b. Film requirements

c. Techniques for edentulous survey

13. Extraoral radiography **Lecture Hours: 2**
    a. Types of extraoral films
    b. Uses for extraoral films
    c. Cassettes and holding devices
        1) screens and grids
    d. Extraoral films
        1) lateral jaw surveys
        2) lateral skull surveys
        3) facial profile survey
        4) posterior-anterior surveys
        5) temporomandibular articulation surveys
    e. Cephalometric surveys
        1) uses in orthodontics
        2) landmarks and planes

14. Panoramic Radiography **Lecture Hours: 2**
    a. Fundamentals of panoramic radiography
    b. Concepts for focal troughs
    c. Geometry and sharpness of an image
    d. Importance of correct head positioning
    e. Types of panoramic units
    f. Operational procedures
    g. Advantages and disadvantages of panoramic films
    h. Technique errors
    I. Anatomy on panoramic films

15. Patient management **Lecture Hours: 3**
    a. Value of patient education
    b. Program policy for outpatient procedure **Clinic Hours: 28**
    c. Appointment scheduling
    d. Outpatient exposure, processing and evaluation
    e. Benefits of preventive radiation
    f. Goals of dental diagnostic radiography

16. Radiographic interpretation: Developmental disturbances of teeth and bone
    a. Eruption of teeth **Lecture Hours: 2**
    b. Impaction of teeth
    c. Supernumerary teeth (hyperdontia)
    d. Congenitally missing teeth
    e. Enamel pearls
    f. Fusion
    g. Gemination
    h. Concrescence
    I. Dens invaginatus
    j. Dilaceration
    k. Malposition of teeth
    l. Amelogenesis imperfecta
    m. Dentinogenesis imperfecta
    n. Fissural cysts

o. Cleft palate
p. Dentigerous cyst

17. Radiographic interpretation: Caries, periodontal disease, and pulpal, periapical, and bone lesions **Lecture Hours: 2**
a. Caries
b. Periodontal disease
c. Pulpal lesions
d. Traumatic injuries
e. Foreign bodies and root tips
f. Extraction sockets
g. Cysts and tumors
h. Metabolic bone lesions
1) salivary stones

18. Advanced radiograph techniques, errors-causes and corrections **Lecture Hours: 1**
a. Evaluation of outpatient films for:
1) contrast
2) density
3) correct film placement
4) elongation
5) foreshortening
6) visible contacts
7) anatomical landmarks
8) pathology and dental restorations
9) correct mounting
10) processing errors

19. Oral examination (mouth mirror inspection of the oral cavity) **Lecture Hours: 2**
a. Armamentarium/materials needed
b. Type of records **Laboratory Hours: 2**
c. Diagnostic aids
d. Medical/dental health history **Clinic Hours: 2**
1) interpretation
2) recording deviations from normal
3) legal/ethical considerations
4) supervised clinical practice

20. Vital signs **Lecture Hours: 2**
a. Blood pressure
1) measurement techniques **Laboratory Hours: 1**
2) recognition of normal ranges
3) significance in treatment planning **Clinic Hours: 2**
4) recording in a clinical record
5) supervised clinical practice
b. Pulse rate
1) measurement techniques
2) recognition of normal ranges
3) significance in treatment planning
4) recording in a clinical record
5) supervised clinical practice
c. Respiration rate

1) measurement techniques
2) recognition of normal ranges
3) significance in treatment planning
4) recording in a clinical record
5) supervised clinical practice

d. Temperature
1) measurement techniques
2) recognition of normal ranges
3) significance in treatment planning
4) recording in a clinical record
5) supervised clinical practice

21. General patient appraisal — **Lecture Hours: 2**
a. Physical appearance
b. Deviations from normal — **Laboratory Hours: 1**
c. Treatment planning considerations
d. Head and neck inspections
1) landmarks
2) anatomy
3) nodes
4) glands
5) TMJ
6) recording in a clinical record
7) supervised clinical practice

22. Intra-oral soft tissue examination — **Lecture Hours: 4**
a. Landmarks and anatomy
b. Pathology and deviations from normal — **Clinic Hours: 2**
c. Terminology and descriptive terms
d. Examination sequence
e. Recording in a clinical record
f. Supervised clinical practice

23. Charting and classification of occlusion — **Lecture Hours: 2**
a. Tooth morphology
b. Cavity classification — **Clinic Hours: 2**
c. Charting restorations
d. Charting abnormalities/pathology
e. Inspection techniques
1) direct observation
2) indirect observation
3) transillumination
4) uses of a triplex syringe
f. Classification of occlusion
g. Recording information in clinical practice
h. Supervised clinical practice

B. Chairside Assisting 1

1. Four handed dentistry — **Lecture Hours: 7**
a. Team positions — **Laboratory Hours: 8**

b. Instrumentation
   1) grasp
   2) methods of transfer
   3) practice

Clinic Hours: 3

c. Maintaining Operative Field
   1) illumination
   2) retraction
   3) triplex syringe
   4) oral evacuation
   5) practice maintaining operative field

2. Safety

Lecture Hours: 10

a. Laboratory rules

b. Equipment
   1) gas
   2) electrical
   3) mechanical
   4) first aid kit
   5) fire extinguishers

Laboratory Hours: 13

Clinic Hours: 2

c. Personnel protocols, OSHA guidelines
   1) uniforms
   2) hair/jewelry
   3) Universal precautions - eyewear, masks, face shields, and gloves
   4) uses of protective barriers
   5) personal conduct, work habits

d. Emergency procedures
   1) minor emergencies
   2) major emergencies
   3) fire
   4) medical emergencies
   5) dental emergencies

3. Clinical patient management

Lecture Hours: 6

a.. Management of the patient in the operatory
   1) updating medical/dental history
   2) seating, monitoring, dismissing
   3) special patients

Laboratory Hours: 6

Clinic Hours: 2

b. Operatory equipment
   1) identification
   2) operation
   3) maintenance
   4) safety
   5) infection control applications

4. Infection control

Lecture Hours: 11

a. Goals of infection control in dental practice

b. Principles of infection control and asepsis in dental practice
   1) barrier techniques
   2) patient protection
   3) high risk patients

Laboratory Hours: 10

Clinic Hours: 2

4) equipment cleaning and disinfection
5) immunization

c. Physical methods of infection control
1) steam autoclave
2) chemical vapor sterilizer
3) transfer media
4) dry heat
5) flaming
6) ultraviolet light
7) hot oil
8) boiling water

d. Chemical agents for infection control
1) activated dialdehydes
2) iodophors
3) sodium hypochlorite
4) phenolic compounds
5) isopropyl alcohol
6) quaternary ammonia

e. Sterilizer monitoring
1) Physical monitors
2) Chemical monitors
3) Biological monitors

f. Skill's evaluations
1) preparation of contaminated instruments
2) hand washing
3) preparation of specified disinfectants
4) operation of specified sterilizers
5) operation of an ultrasonic cleaning device

5. Gypsum products **Lecture Hours: 7**
a. Classification and composition
b. Properties **Laboratory Hours: 10**
c. Measurement, and measuring devices
d. Armamentaria, and tray set ups
e. Storage
f. Manipulation
1) pour rubber molds on primary and permanent dentition, edentulous, and cavity classification
g. Diagnostic models
1) pour cast
2) place a base on the cast
3) trim the cast properly
4) polish the cast properly
5) articulate the cast properly

6. Irreversible hydrocolloid (Alginate) **Lecture Hours: 8**
a. Classification and composition
b. Properties - dimensional change **Laboratory Hours: 9**
c. Armamentaria/tray set ups

d. Disinfection and care of the impression **Clinic Hours: 2**
e. Manipulation and taking of the impression

7. Bite Registration **Lecture Hours: 5**
   a. Wax **Laboratory Hours: 6**
      1) origin and classification
      2) properties (residual stress) **Clinic Hours: 3**
      3) armamentaria/tray set ups
      4) manipulation and occlusal registration
      5) disinfection and care of the wax
   b. ZOE impression paste
      1) composition
      2) uses and applications
      3) properties
      4) armamentaria/tray set ups
      5) disinfection and care of the ZOE impression paste
   c. Polyvinylsiloxane bite registration
      1) composition
      2) triple tray technique
      3) closed bite technique
      4) open bite technique
      5) properties
      6) armamentaria/tray set ups
      7) disinfection and care of the polyvinylsiloxane bite registration

C. Operative Instruments and Materials

1. Dental cements **Lecture Hours: 7**
   a. Zinc phosphate **Laboratory Hours: 12**
      1) classification, composition, properties
      2) armamentaria
      3) uses
      4) manipulation - timed practice
   b. Polycarboxylate
      1) classification, composition, properties
      2) armamentaria
      3) uses
      4) manipulation - timed practice
   c. Zinc oxide eugenol
      1) classification, composition, properties
      2) armamentaria
      3) uses
      4) manipulation - timed practice
   d. Glass ionomer
      1) classification, composition, properties
      2) armamentaria
      3) uses
      4) manipulation - timed practice
   e. Calcium hydroxide

1) classification, composition, properties
2) armamentaria
3) uses
4) manipulation - timed practice

f. Silicophosphate
1) classification, composition, properties
2) armamentaria
3) uses
4) manipulation - timed practice

g. Varnish
1) classification, composition, properties
2) armamentaria
3) uses
4) manipulation - timed practice

h. Pit and fissure sealants
1) classification, composition, properties
2) armamentaria
3) uses
4) manipulation - timed practice

2. Bases and liners

a. Deep base
1) sound dentin criteria
2) pulp capping procedures
3) materials
4) armamentaria/tray set ups
5) criteria for placing
6) placement

Lecture Hours: 6

Laboratory Hours: 10

b. Varnish
1) materials
2) function
3) armamentaria/tray set ups
4) criteria for placing
5) placement

c. Insulating base
1) materials
2) function
3) armamentaria/tray set ups
4) criteria for placing
5) placement

3. Temporary sedative dressing

Lecture Hours: 6

a. Materials
1) IRM
2) Zinc phosphate
3) ZOE

Laboratory Hours: 9

b. Armamentaria/Tray set up

c. Criteria
1) consistency

2) condensing/filling
3) carving/anatomy
4) occlusal height
5) margins
6) contact/interproximal contour

d. Placement and removal

4. Matrices — **Lecture Hours: 7**

a. Function/rationale

Laboratory Hours: 9

b. Types
1) strips
2) bands
3) crown forms

c. Retainers/adapting
1) tofflemire
2) ivory
3) self-retained

d. Armamentaria/tray set up

e. Band
1) function
2) sizes/types
3) criteria
a) contact
b) occlusal height
c) gingival extension

f. Wedge
1) function
2) sizes/types/trimming
3) criteria
a) direction
b) contact/interproximal contour
c) gingival margin closure

g. Placement and removal

5. Dental amalgam — **Lecture Hours: 7**

a. Silver alloy
1) components — **Laboratory Hours: 9**
2) properties

b. Mercury
1) specification and purity
2) toxicity
a) types
b) systemic entry
c) signs/symptoms
3) precautions and hygiene protocols

c. Manipulation
1) alloy/mercury ratio

2) amalgam properties
3) trituration

d. Amalgam restoration procedure
1) tray set up
2) instrumentation
3) assistant's responsibility

6. Restorative Resins **Lecture Hours: 6**
a. Unfilled resins
b. Filled resins **Laboratory Hours: 9**
1) conventional composites
2) microfilled composites
3) light cure composites
4) classifications, compositions, properties
5) armamentaria/tray set up
6) instrumentation
7) assistant's responsibilities
8) manipulation of materials

7. Handcutting instruments **Lecture Hours: 8**
a. Identification and classification
b. Parts of hand instruments **Laboratory Hours: 9**
1) blade/bevel, nib
2) formulas
a) 3 number
b) 4 number

c. Categories and uses
1) cutting
2) condensing
3) carving
4) basic setup
5) miscellaneous

d. Instrument sharpening (theory)
e. Infection control and sterilization

8. Rotary instruments **Lecture Hours: 7**
a. Identification and classification **Laboratory Hours: 10**
1) burs
2) diamonds
3) stones
4) disks
5) wheels
6) finishing burs
7) finishing strips

b. Parts of rotary instruments
1) shank design
2) head
a) names
b) numbers

c) uses

c. Handpieces
1) speeds
2) uses
a) high speed
b) slow speed
3. power mechanisms
4. straight handpiece
a) parts
b) attachments
1) contra angle
2) prophy angle
c) maintenance
5. high speed contra angle
a) parts
b) chuck
c) changing burs
d) coolant
e) washed field and dry field techniques
f) maintenance

d. Sterilization and infection control
1. running the water lines
a) beginning of the day
b) between patients
2. handpiece sterilization - not disinfection
3. maintenance
a) cleaning and flushing
b) oiling

D. Biodental Science 1

1. Landmarks of the face and oral cavity **Lecture Hours: 6**
a. Facial landmarks
b. Intra-oral landmarks
2. Skull **Lecture Hours: 8**
a. Bones of the cranium
b. Bones of the face
c. Landmarks of the skull
3. Head and neck anatomy **Lecture Hours: 10**
a. Overview of body systems
b. Muscles of mastication
c. Salivary glands
d. Lymph nodes
e. Tongue
f. Trigeminal nerve and it branch
g. Blood vessels
1) arteries
2) veins

3) capillaries

4. Oral pathology **Lecture Hours: 10**
   a. Etiology of disease
      1) trauma
      2) extreme temperature
      3) chemical extremes
      4) biological agents
      5) radiation
   b. Inflammatory process
      1) cardinal symptoms
      2) systemic effects
   c. Descriptive terminology
   d. Diseases of oral cavity
      1) dental caries
      2) inflammatory diseases
      3) vitamin deficiencies
      4) developmental defects
      5) neoplasms
         a) benign
         b) malignant
      6) miscellaneous
5. Dental histology **Lecture Hours: 10**
   a.. Cellular structure
      1) cell components
      2) mitosis
   b. Tissue types
      1) epithelial
      2) connective
      3) muscle
      4) nerves
   c. Tooth tissues
      1) enamel
      2) dentin
      3) pulp
   d. Oral mucosa
      1) masticatory
      2) lining
      3) specialized
   e. Periodontium tissues
      1) gingiva
      2) periodontal ligament
      3) alveolar bone
      4) cementum
6. Methods of tooth classification **Lecture Hours: 2**
   a. permanent
      1) arch
      2) location

3) function
b. deciduous
1) arch
2) location
3) function

7. Importance of primary dentition **Lecture Hours: 2**
a. Speech
b. Mastication
c. Space retention
d. Overall health

8. Tooth surfaces **Lecture Hours: 4**
a. Anterior teeth
b. Posterior teeth

9. Line and point angles
a. Terminology **Lecture Hours: 4**
b. External surfaces

10. Cavity classification and preparation **Lecture Hours: 4**
a. Criteria and location
b. Classes 1-VI
c. Cavity walls and angles

11. Occlusion
a. Angles' classification **Lecture Hours: 2**
b. Overbite, overjet, crossbite
c. Temporomandibular joint

12. Maintenance of tooth position **Lecture Hours: 2**

13. Self sustaining tooth characteristics **Lecture Hours: 2**

14. Charting
a. Types of charts
b. Methods of numbering teeth
c. Symbols
d. Color coding

15. Odontography of permanent dentition **Lecture Hours: 6**
a. Anterior teeth
1) Incisors
a) characteristics of incisors
b) key landmarks of each type of incisor
2) Cuspids (canines)
a) characteristics of cuspids
b) key landmarks of each type of cuspid
b. Posterior teeth
1) Bicuspids (pre-molars)
a) characteristics of bicuspids
b) key landmarks of each type of bicuspid
2) Molars
a) characteristics of molars
b) key landmarks of each type of molar

E. Introduction to Dental Assisting

1. History **Lecture Hours: 2**
   a. Dentistry
   b. Dental assisting
2. Educational and licensing requirements
   a. Dentist and specialty practices **Lecture Hours: 3**
   b. Dental assistant; registered dental assistant; registered dental assistant extended functions
   c. Registered dental hygienist; registered dental hygienist extended functions
   d. Dental laboratory technician
3. Professional associations and code of ethics
   a. Dentistry (American Dental Association) **Lecture Hours: 3**
   b. Dental assisting(American Dental Assistants Association)
   c. Dental hygiene(American Dental Hygienists Association)
4. California State Registry and D.A.N.B. certification **Lecture Hours: 2**
5. State of California Dental Practice Act **Lecture Hours: 4**
6. Malpractice issues **Lecture Hours: 2**
   a. Standard of care
   b. Malpractice insurance
   c. Common grounds for dental malpractice lawsuits
7. Professional qualifications **Lecture Hours: 2**
   a. Demeanor
   b. Appearance
   c. Personal qualities
8. Human relations **Lecture Hours: 8**
   a. Personality types/self evaluation
   b. Patient psychology
      1) recognition of anxiety
      2) anxiety control techniques
      3) controlling patient behavior
   c. Interpersonal communications
      1) verbal
      2) nonverbal
      3) dental terminology
      4) principles of communication(communication cycle)
         a) verbal message
         b) listening
         c) formulating response
         d) problems in interpersonal communication
         e) asking questions(open-ended/front-ended)
         f) greeting patients
   d. Human behavior
      1) types of behavior
      2) defense mechanisms
      3) assistant's role in behavior modification
   e. Special patients
      1) disabled patients

2) patients with health problems
3) patients with mental problems
   a) depression
   b) anxiety
4) Down syndrome
5) stroke patients
6) cleft palate

DA 1 - DENTAL ASSISTING 1
COURSE TITLE AND NUMBER

METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least on of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category 1, 2, or 3.

WRITING

1. Substantial writing assignments, including:
   a. Essay exam(s) X b. Term or other paper(s) ____
   c. Laboratory report(s) X d. Written homework X
   e. Reading reports X
   f. Other(specify) _____
   g. Substantial writing assignments in this degree applicable course are inappropriate because:
      ____ The course is primarily computational in nature.
      X The course primarily involves skill demonstrations or problem solving.
      X Other rationale (explain) _____

PROBLEM SOLVING

2. Computational or non-computational problem-solving demonstrations, including:
   a. Exam(s) X b. Quizzes X
   c. Homework problems X d. Laboratory reports X
   e. Field work ____ f. Other (specify) _____

_____

3. SKILL demonstrations, including:
   a. Class performance(s) X b. Field work ____
   c. Performance exam(s) X d. Other(specify)_____

_____ _____

4. OBJECTIVE examinations, including:
   a. Multiple choice X b. True/False X
   c. Matching items X d. Completion X
   e. Other(specify) Short Essay _____

Description/Explanation: Based on the categories checked, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor.

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.
90-100% - A, 80-89% - B, 70-79% - C, 60-69% - D, 59% & below - F

Each assignment and examination is assigned a points value. The student's grade is based on
points earned =%
points possible

DA 1 - DENTAL ASSISTING 1
COURSE TITLE AND NUMBER

SKILL LEVELS:

For degree applicable courses, describe or specify the level of learning skills and vocabulary and critical thinking skills.

Link thinking skills to specific course content and objectives.

A. Radiology 1

1. Relate information from lecture and reading assignments to evaluate the relationship between the x-ray unit variable controls and the effects on the diagnostic quality of the film.
2. Demonstrate an understanding of the concepts of radiation safety by establishing an acceptable protocol for patient and operator safety.
3. Utilize critical thinking skills in the selection of the proper exposure technique for manikins, and the assessment of the finished films for diagnostic quality.
4. Assemble the armamentarium required for the completion of each assigned task.
5. Complete a minimum of one full mouth set of x-rays and one bitewing survey on a patient with a score of 75% or better.

B. Chairside Assisting 1

1. Demonstrate critical thinking by transferring didactic information to experiment and pre-clinical setting and ultimately to selected clinical situations.
2. Practice established safety protocols and make rapid but appropriate technique modifications when patient or operator safety is compromised
3. Assemble materials and armamentaria required to perform pre-clinical and clinical procedures.
4. Evaluate assigned projects by comparing results with expected outcomes.
5. Identify errors and make appropriate modifications in planning, manipulation and/or clinical techniques required to perform projects that meet the established criteria.
6. Complete minimum of two evaluations of each project with a score of 75% or better.

C. Operative Instruments and Materials

1. Transfer didactic information to experiment and pre-clinical situations.
2. Evaluate personal performance and make appropriate adjustments in procedural technique to insure the desired outcome.
3. Practice established safety protocols while performing experiment and pre-clinical procedures.
4. Assemble materials and armamentaria required to perform assigned experiment and pre-clinical procedures.
5. Demonstrate established manipulative technique and application of materials.
6. Identify the influence manipulative technique has on the application of materials.
7. Utilize critical thinking to synthesize past knowledge and skills with new concepts and situations.

8. Complete minimum of three evaluations of each project with a score of 75% or better.

D. Biodental Science 1

1. Utilize inductive and deductive reasoning in the identification of dentition and patterns of occlusion.
2. Demonstrate an understanding of biodental sciences by utilizing appropriate terminology.
3. Demonstrate the transfer of knowledge of charting symbols and color coding to each new charting assignment.

E. Introduction to Dental Assisting

1. Select and utilize appropriate problem-solving techniques in handling patient inquiries.
2. Recognize and evaluate normal vs. abnormal patient behaviors.
3. Utilize appropriate terminology.
4. Demonstrate human relations skills required for effective patient management.
5. Transfer didactic information to clinical settings and patient management situations.
6. Demonstrate personal knowledge of legal duties and ethical responsibilities when in clinical settings.

DA 1 - DENTAL ASSISTING 1
COURSE NAME AND NUMBER

EDUCATIONAL MATERIALS:

For degree applicable courses, the adopted texts, as listed in the college bookstore, or instructor-prepared materials have been certified to contain college-level materials.

Validation Language Level (check where applicable):	College-level criteria met Yes	No
Textbook	X	___
Reference materials	___	___
Instructor-prepared materials	___	___
Audiovisual materials	___	___

Indicate method of evaluation:

_____ Used readability formula (grade level 10 or higher)
_____ Text is used in a college-level course
_____ Used grading provided by publisher
_____ Other: (please explain; relate to skill levels, above)

Computational Level (Eligible for Math 1 level or higher) (Where applicable)	N/A	___

Content

Breadth of ideas covered clearly meets college level learning objectives of this course	X	___
Presentation of content and/or exercises/projects:		
Requires a variety of problem-solving strategies including inductive and deductive reasoning.	X	___
Requires independent thought and study	X	___
Applies transferring knowledge and skills appropriately and efficiently to new situations or problems.	X	___