

New Course Request

Indiana University

IUPUI Campus

Check Appropriate Boxes: Undergraduate credit Graduate credit Professional credit

1. School/Division IUSD/Dental Hygiene 2. Academic Subject Code DHYG-H

3. Course Number 250 (must be cleared with University Enrollment Services) 4. Instructor ~~James XXIXXX~~

5. Course Title Local Anesthesia and Pain Control William R. Neal, DDS

Recommended Abbreviation (Optional) Loc Anesth

(Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Fall/2008

7. Credit Hours: Fixed at _____ or Variable from 1 to 2

8. Is this course to be graded S-F (only)? Yes _____ No X

9. Is variable title approval being requested? Yes _____ No X

10. Course description (not to exceed 50 words) for Bulletin publication: This course addresses coverage of pain and anxiety management for conscious dental clients. The indications, contraindications and pharmacology of topical anesthesia, local anesthesia and nitrous oxide and oxygen sedation used in dentistry will be discussed. Local anesthesia techniques and the administration of nitrous oxide and oxygen sedation will be studied.

11. Lecture Contact Hours: Fixed at -- or Variable from 1 to 2

12. Non-Lecture Contact Hours: Fixed at -- or Variable from -- to --

13. Estimated enrollment: 50 of which 0 percent are expected to be graduate students.

14. Frequency of scheduling: annually Will this course be required for majors? Yes

15. Justification for new course: These procedures are now within the legal scope of dental hygienists

16. Are the necessary reading materials currently available in the appropriate library? Yes

17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials. (appended)

18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant. (appended)

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by: [Signature] - interim chair 7/7/08
[Signature] Date 7-2-08
Department/Chairman/Division Director

Approved by: [Signature] Date 7/8/08
Dean

Date _____
Dean of Graduate School (when required)

Date _____
Chancellor/Vice-President

Date _____
University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

Pain Management in Dentistry

1- 2 credit hours

Course Description:

This course addresses coverage of pain and anxiety management for conscious dental clients. The indications, contraindications and pharmacology of topical anesthesia, local anesthesia and nitrous oxide and oxygen sedation used in dentistry will be discussed. Local anesthesia techniques and the administration of nitrous oxide and oxygen sedation will be studied.

Prerequisite:

H 118, H 219, H215 Pharmacology and Therapeutics , H 205 Medical and Dental Emergencies

Goals of the Course

Successful completion of this course will provide documentation of the following competencies:

Core Competencies:

1. Apply a professional code of ethics in all endeavors.
2. Adhere to state and federal laws, recommendations, regulations and safety practices in the provision of dental hygiene care.
4. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.
9. Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.
10. Provide care to all clients using an individualized approach that is humane, empathetic and caring.

Course Objectives:

Successful completion of this course will prepare the student to meet the following objectives:

1. Discuss the theory of pain control.
2. Describe the neurophysiology of nerve stimulus transmission.
3. Apply the pharmacology of nitrous oxide/oxygen sedation and local anesthetics/vasoconstrictors to clinical practice.
4. Explain the psychological aspects of pain control.
5. Prepare a comprehensive physical evaluation of patients prior to administering pain control techniques.
6. Explain the pain control modalities available and their purposes.

7. Assist in selecting the appropriate clinical techniques to control pain and anxiety.
8. Prepare the correct armamentarium for nitrous oxide/oxygen sedation and local anesthetic while demonstrating proper infection control techniques.
9. Demonstrate proper application of topical anesthetics and recite the rationale.
10. Locate anatomical sites for specific local anesthetic injection techniques.
11. Describe the techniques used for local anesthesia.
12. Identify local and systemic complications associated with various pain control techniques.
13. Safely administer local anesthetic to patients in a clinical setting.

Specific performance objectives for each topic discussed in class will be available to students prior to or during each class session.

Required Textbooks:

Handbook of Local Anesthesia, Stanley F. Malamed, current edition

Handbook of Nitrous Oxide and Oxygen Sedation, Morris S. Clark, Ann Brunick, current edition

Supplemental Textbooks/Materials:

Malamed's Local Anesthesia Administration DVD, Stanley F. Malamed

Dental Hygiene Theory and Practice, Michele L. Darby, Margaret M. Walsh, current edition

Mosby's Comprehensive Review of Dental Hygiene, Michele L. Darby, current edition

All reading assignments are to be completed prior to class.

Student Evaluation Methods:

Method of Evaluation	
Lecture (50% of total course grade)	Clinical (50% of total course grade)
<ul style="list-style-type: none"> • On line quizzes 20% • Exam 1 20% • Exam 2 20% • Exam 3 20% • Exam 4 20% 	Skill evaluations* <ul style="list-style-type: none"> • Infection control procedures during the administration of local anesthesia (100% level of proficiency) • Assembling and using nitrous oxide and oxygen sedation armamentarium (90% level of

	<p>proficiency)</p> <ul style="list-style-type: none"> • Assembling local anesthesia armamentarium (90% level of proficiency) • Identification of oral landmarks for the administration of local anesthesia (100% level of proficiency) • Maxillary anesthesia techniques (85% level of proficiency) • Mandibular anesthesia techniques (85% level of proficiency)
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Clinical Competencies

Completion of the following clinical competencies is required in order to receive a grade of “C” or better in the clinical component of the course. Failure to achieve each of the competencies will result in a grade of “F” in the course.

- Clinical Scenario for Nitrous Oxide and Oxygen Sedation
- Clinical Scenario for Maxillary Injections
- Clinical Scenario for Mandibular Injections

***Skill Evaluations**

When a skill evaluation is administered more than once, only the first score will be recorded in the grade book and averaged into the grade. However, the student must be re-evaluated on the skill until he/she obtains the stated proficiency level. All re-evaluations must be completed prior to the student being allowed to take the clinical competency exam for that skill.

In order to pass this course, the student must meet all the requirements listed below. Failure to meet each requirement will result in an “F” grade in the course.

1. A final average of “C” or better in the lecture component.
2. A final average of “C” or better in the clinical component.
3. Completion of the required clinical competencies to the stated proficiency level.

Grading Scale:

A+ = 100
A = 97-99
A- = 95-96
B+ = 93-94
B = 90-92
B- = 88-89
C+ = 85-87
C = 82-84
C- = 79-81
D+ = 76-78
D = 73-75
D- = 70-72
F = 69 or below

Incomplete grades. Any student who does not complete all course requirements by the last day of the semester the course is taken will be given a grade of Incomplete (“I”) until those requirements are completed. At that time the incomplete grade will be removed and the earned grade will be submitted to the Registrar’s office. “I” grades must be removed within a one year period or they will automatically revert to a grade of “F” on the student’s transcript.

Failing Grades. Satisfactory completion of this course is a requirement of the curriculum. Students who earn a grade of “F” in the course will be required to retake the course during a subsequent semester in which it is being offered. Successful completion of this course is a requirement for each students before he/she be allowed to administer local anesthesia in clinic.

Student Evaluation Method Criteria:

- A. Attendance:** Attendance policies outlined in the Student Handbook will be followed. Reasons for class absences must be submitted to the course instructor **in writing** no later than 24 hours after the student returns to school. All students are expected to communicate with the course director if they are unable to attend class either by telephone or e-mail, prior to class beginning. Unexcused tardiness and absences may be counted against the course grade. Excused absences are at the instructor’s discretion. The student is responsible for acquiring any class notes or handouts from missed classes.
- B. Class Participation and Preparation:** Students are encouraged to prepare for class by completing all reading assignments and study guides prior to the class session. This will enable the student to more actively participate in class discussions and activities.
- C. On-line quizzes:** The dates of on-line quizzes are indicated on the course schedule. All on-line quizzes are to be taken independently and without assistance from another individual. On-line quizzes will be timed and must be taken by 7:00 a.m. on the date the quiz is due. After that time, the quiz will not

be available to students. An honor code statement must be signed and returned to the Course Director for each quiz taken. The honor code is due no later than 8:00 a.m. on the day the quiz is due.

- D. Remediation Methods:** Students who receive below a grade of C on any of the examinations will be scheduled to meet with one of the course directors to review the course material covered on the exam. Students will also be counseled on note taking skills, study skills and test taking skills. Students who earn a grade of "F" in the course will be required to retake the course during a subsequent semester in which it is being offered.

Course Policies and Procedures:

- A. Ethics.** Students are expected to behave in an ethical manner as outlined in the IUSD Code of Professional Conduct. Any unethical behavior will be handled as described in the guidelines provided by the IUSD Student Professional Conduct Council.
- B.** All students will complete the Affirmation of the IUSD Code of Professional Conduct statement where applicable. **This includes all exams and all on-line quizzes.**
- C.** Any student demonstrating unethical behavior is subject to failing this course and dismissal from IUSD's Dental Hygiene Program.
- D. Classroom etiquette:** The following guidelines are to be followed during each class session to minimize disruptions during class:
1. All cell phones are to be **turned off** during class (not silent mode, not vibrate, not text messaging, but off). Anyone who leaves during class to answer his/her cell phone will not be allowed back into class that day and an unexcused absence will be recorded for that class session.
 2. Once class begins, students should not leave class unless there is an emergency.
 3. Talking during class should be limited to class discussion. Individual conversations are disruptive to the instructor as well as other students. Individuals who disrupt class will be asked to leave and an unexcused absence will be recorded for that class session.

Schedule: Lecture

Week	Topic Covered	Text/Chapter
1	Syllabus review Neurophysiology	Malamed 1
2	Pharmacology of nitrous oxide and oxygen sedation Pharmacology of local anesthetics and vasoconstrictors Clinical action of specific agents	Clark Malamed 2-3 Malamed 4 Clark
3	Examination #1	
4	Physical and psychological evaluation ASA classification system	Malamed 10 Clark
5	Nitrous oxide and oxygen sedation armamentarium	Clark

	Local anesthetic armamentarium: syringe, needle, cartridge	Malamed 5-8
	Preparation of the anesthesia armamentarium	Malamed 9
6	Administration of nitrous oxide and oxygen sedation	Clark
7	Topical anesthesia	
	Basic injection technique	Malamed 11
	Anatomical considerations	Malamed 12
8	Examination #2	
9	Techniques of maxillary anesthesia	Malamed 13
10	Techniques of maxillary anesthesia (continued)	
	Techniques of mandibular anesthesia (continued)	
11	Techniques of mandibular anesthesia	Malamed 14
12	Examination #3	
13	Supplemental injection techniques	Malamed 15
	Local anesthetic considerations in dental specialties	Malamed 16
14	Local and systemic complications of anesthetic	Malamed 17-18
15	Future trends in pain control	Malamed 19
16	Examination #4	

Schedule: Lab (Will not begin to week 4 of semester)

Week	Topic Covered	Text/Chapter
4	Infection control practices during the administration of local anesthesia	
5	Assemble and use nitrous oxide and oxygen sedation armamentarium Assemble local anesthetic armamentarium: syringe, needle, cartridge	
6	Case scenarios for the use of nitrous oxide and oxygen sedation	
7	Identification of oral landmarks for the administration of local anesthesia Local anesthesia administration techniques	

8	Skill Evaluations: <ul style="list-style-type: none">• Assembling and using nitrous oxide and oxygen sedation armamentarium• Assembling local anesthesia armamentarium• Identification of oral landmarks for the administration of local anesthesia	
9	Practice maxillary anesthesia techniques	
10	Practice maxillary anesthesia techniques	
11	Skill Evaluation: <ul style="list-style-type: none">• Maxillary anesthesia technique	
12	Practice mandibular anesthesia techniques	
13	Practice mandibular anesthesia techniques	
14	Skill evaluation: <ul style="list-style-type: none">• Mandibular anesthesia techniques	
15	Review above procedures as necessary	
16	Clinical competency exams	

New Course Request – Indiana University

Dental Hygiene – undergraduate – Course Number H250 Local Anesthesia and Pain Control

Appendix to Question #18:

This course reflects the education and training needed to prepare dental hygiene students who are enrolled in the Dental Hygiene Program to provide local anesthesia in clinical practice. This professional responsibility was recently added to the scope of practice of licensed dental hygienists in the state of Indiana. The course will specifically address the foundational knowledge and techniques and clinical skills necessary to provide local anesthetic as well as an understanding of other methods of pain control used in dentistry. The course is complementary to other courses in the curriculum, including H215 Pharmacology and H205 Medical and Dental Emergencies, which precede it in the professional curriculum and provide foundational knowledge that will be applied more specifically and at a higher level as it relates to administration of local anesthetics in the proposed new course. This complementary relationship among these courses is desirable in that together they help to build the students' competency towards providing safe and effective clinical care and solving problems related to the delivery of pain control for patients. This course will have no direct overlap with other courses in the professional dental hygiene curriculum or with other pre-requisites courses.

TO MANDY BARTLEY.

FAX

COURSE

DHY6 H 250

NEED INTERIM APPROVAL FOR FALL 08

Tom May.