# **Cover Sheet: Request 11229**

# dEN7411C Overview of Implant Dentistry

# Info

Process	Course Modify Ugrad/Pro		
Status	Pending		
Submitter	Abare,Censeri P cabare@dental.ufl.edu		
Created	11/1/2016 11:04:03 AM		
Updated	11/2/2016 3:55:11 PM		
Description	Curriculum provides basic biological knowledge and scientific basis for implant		
of request	treatment including patient evaluation, implant selection, implant surgery,		
	postsurgical care, implant prosthodontics procedures and maintenance protocols.		
	Focus on scientific basis of implant-host relations, diagnosis, treatment planning,		
	treatment as well as maintenance procedures.		

## **Actions**

Step	Status	Group	User	Comment	Updated		
Department	Approved	DEN - Prosthodontics 313414000	Echeto, Luisa Fernanda	Comment	11/1/2016		
Added DEN74	11/1/2016						
College	Approved	DEN - College of Dentistry	Sposetti, Venita J		11/2/2016		
	No document changes						
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			11/2/2016		
	No document changes						
Statewide Course Numbering System							
No document	changes						
Office of the Registrar							
No document changes							
Student Academic Support System							
No document	changes						
Catalog							
No document changes							
College Notified							
No document	changes						

# **Course|Modify for request 11229**

# Info

**Request:** dEN7411C Overview of Implant Dentistry

**Description of request:** Curriculum provides basic biological knowledge and scientific basis for implant treatment including patient evaluation, implant selection, implant surgery, postsurgical care, implant prosthodontics procedures and maintenance protocols. Focus on scientific basis of implant-host relations, diagnosis, treatment planning, treatment as well as maintenance procedures.

**Submitter:** Abare, Censeri P cabare@dental.ufl.edu

**Created:** 11/1/2016 11:04:03 AM

Form version: 1

# Responses

Course Level7
Number 411
Lab Code C
Course Title Overview of Implant Dentistry
Effective Term Earliest Available
Effective Year Earliest Available
Requested Action Other (selecting this option opens additional form fields below)
Change Course Prefix?No

Change Course Level?No

Change Course Number?No

Change Lab Code?No

**Change Course Title?**No

**Change Transcript Title?**No

**Change Credit Hours?**No

**Change Variable Credit?**No

Change S/U Only?No

**Change Contact Type?**No

**Change Rotating Topic Designation?**No

**Change Repeatable Credit?**No

# Change Course Description?Yes

**Current Course Description**Curriculum provides basic knowledge concerning biological and scientific basis for implantology, including patient evaluation, diagnosis, treatment planning, implant selection, implant surfer, post surgical care, implant prosthodontic procedures and maintenance protocols. Course goals include development and understanding of the history and past status of implant dentistry; scientific basis of implant-host relations; and diagnosis, treatment planning, treatment and treatment-associated complications along with maintenance procedures

**Proposed Course Description (50 words max)**Curriculum provides basic biological knowledge and scientific basis for implant treatment including patient evaluation, implant selection, implant surgery, postsurgical care, implant prosthodontics procedures and maintenance protocols. Focus on scientific basis of implant-host relations, diagnosis, treatment planning, treatment as well as maintenance procedures.

**Change Prerequisites?**No

## Change Co-requisites?No

**Rationale**To update description and correct mistake in words.

# **DEN7411C:** Overview of Implant Dentistry Fall 2016

# **Course Description:**

Curriculum provides basic knowledge concerning biological and scientific basis for implant treatment, including patient evaluation, diagnosis, treatment planning, implant selection, implant surgery, post surgical care, implant prosthodontic procedures and maintenance protocols. Course goals include development and understanding of the history and past status of implant dentistry, scientific basis of implant-host relations, and diagnosis, treatment planning, and treatment along with maintenance procedures.

#### I. General Information

Course Director: Arthur Nimmo Office: Room D9-6

Email: ANIMMO@dental.ufl.edu

Phone: 1 352 2735850

Course Credits: 2 Semester: Fall

Contributing Faculty

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### II. Course Goals

# **Course Goals**

The educational goal of this preclinical course is to introduce, promote and enhance the knowledge and skills necessary to perform implant-based procedures on your patients. Clinical practice involving dental implants requires the application of fundamentals that meet the biological, mechanical, and esthetic requirements of each patient situation. This course will enhance your diagnostic skills and provide indications for referral and the development of the 'team' concept. This course will cover diagnosis and treatment planning, and treatment of patients from a multi-disciplinary perspective. Therefore, the principles of total patient care will be developed along with the clinical and dental laboratory procedures. The faculty involved in this course look forward to your participation and education and are excited to be part of this course.

#### III. Course Overview

This is a lecture based course with three preclinical laboratory exercises (guides, Straumann components, Astra components).

#### IV. Course Outline

#### **Course Outline**

- A. History and development of dental implants
- B. Diagnosis and patient assessment for implant patients
- C. Treatment planning the partially edentulous patient
- D. Template fabrication for implants patients
- E. Physical diagnosis for implant patients
- F. Treatment planning the edentulous patient for implants
- G. Surgical placement of dental implants
- H. Biology of tissue-implant surface
- I. Restorative options

- J. Anterior tooth replacement
- K. Soft and hard tissue development
- L. Esthetic diagnosis and planning for implant patients
- M. CADCAM abutments
- N. Maintaining dental implant patients

#### V. Course Material

#### **Course Material**

Suggested readings are listed below. Each is available through the UF Health Sciences Library online (go to E-journals), except for the Albrektsson article.

Albrektsson, T., Zarb, G., Worthington, P., Eriksson, AR. The Long-Term Efficacy of Currently Used Dental Implants: A Review and Proposed Criteria of Success. J Oral Maxillofacial Implants 1986; 1: 11-25

Doundoulakis JH, Eckert SE, Lindquist CC, et al. The implant-supported overdenture as an alternative to the complete mandibular denture. J Am Dent Assoc 2003;134(11):1455-8.

Lee H, So JS, Hochstedler JL, et al. The accuracy of implant impressions: a systematic review. J Prosthet Dent 2008;100 (4);285-91.

Gallucci GO, Doughtie CB, Hwang JW, et al. Five-year results of fixed implant-supported restorations with distal cantilevers for the edentulous mandible. Clin Oral Implants Res 2009;Mar, 9.

Cooper LF. The current and future treatment of edentulism. J Prosthodont 2009;18(2);116-122.

### Optional resource:

HSC Dental Library Guide

## VI. Course Objectives

### **Course Objectives**

Through lecture and laboratory exercises the faculty will encourage you to develop your level of understanding and logic as they relate to your planning and treatment of patients requiring dental implants. Through this course students will be able to:

# A. History and development of dental implants

7411 001. Describe the history and development of modern dental implants.

7411 002. Distinguish and recognize implant surfaces and materials and their biologic relevance, with emphasis on the interface between bone and currently used dental implants.

7411 003. Recognize the term 'osseointegration' and protocols designed to achieve and maintain it.

## B. Diagnosis and assessment of dental implant patient

7411 004. Describe and perform the extra and intra-oral examination processes utilized for dental implant patients.

7411 005. Identify and authorize the various radiographic procedures available to implant patients with particular emphasis on accuracy and advantages.

7411 006. Recognize the local anatomy and associated physiology of the proposed implant sites

7411 007. Describe the current surgical classifications of bone for regions of the mouth (edentulous and partially edentulous patients)

7411 008. Identify and describe the regional anatomic landmarks intrinsic to the planning of implant treatment in the respective jaws

### C. Treatment planning the partially edentulous patient

7411 009. Given abutment options, the student will identify the indications, advantages and disadvantages of each

- 7411 010. Recognize the clinical and laboratory procedures associated with provisional restorations
- 7411 011. Identify factors involved in the inter-disciplinary planning of the partially edentulous patient
- 7411 012. Identify factors involved in the inter-disciplinary planning of the single tooth space

#### D. Planning and fabricating radiographic and surgical implant templates

- 7411 013. Describe how to plan and fabricate radiographic and surgical templates for completely and partially edentulous patients
  - 7411 014. Describe the laboratory techniques involved in the fabrication of radiographic and surgical templates

#### E. Diagnostic risk and assessment

- 7411 015. Identify the general medical and dental indications and contra-indications to dental implant related treatment
- 7411 016. Describe the medical assessment of dental implant patients and possible sources of complication
- 7411 017. Recognize the biologic reactions of tissues to implant surgery and implant materials
- 7411 018. Distinguish 'contact area' and 'bone-implant contact' with reference to implant success

### F. Treatment planning the edentulous patient for dental implants

- 7411 019. Describe and understand factors involved in the inter-disciplinary planning of the completely edentulous patient
- 7411 020. Identify the effects of cantilevers and guidelines for cantilever length
- 7411 021. Describe the term passivity and methods of attaining it
- 7411 022. Discriminate among the effects of varying implant number and occlusal scheme
- 7411 023. Identify the materials available for prosthesis fabrication and the factors involved in selection of each
- 7411 024. Identify and describe factors involved in the inter-disciplinary treatment of patients requiring implant supported and/or retained overdentures
  - 7411 025. Identify the restorative alternatives for completely edentulous patients
  - 7411 026. Describe impression procedures and master cast fabrication for edentulous implant patients
  - 7411 027. Identify inter-occlusal and other records required for edentulous implant patients
  - 7411 028. Recognize the different occlusal philosophies associated with dental implants and complete edentulism
  - 7411 029. Describe factors associated with combining dental implant and conventional restorative treatment
- 7411 030. Recognize the 'team' concept of dental implant therapy, with particular reference to the comprehensive treatment planning of patients
- 7411 031. Describe the timing and techniques associated with pre-implant extractions will be discussed in detail for the esthetic and non-esthetic site
- 7411 032. Communicate with the surgical and laboratory team members by way of guides (surgical), casts, the written word and photographs

#### G. Surgical placement of dental implants

- 7411 033. Recognize the procedures involved in the surgical placement of dental implants, including anesthetic, sedation alternatives, antibiotic choices and analgesics
  - 7411 034. Recognize and describe the step-wise placement of dental implants
  - 7411 035. Describe the post-surgical care necessary who receive dental implants

# H. Biology of tissue-implant surface

- 7411 036. Describe, in detail, the biomechanical influences on the state of osseointegration and its maintenance.
- 7411 037. Recognize the similarities and differences between periodontal disease associated with teeth and diseases of the periodontium surrounding implants
- 7411 038. Describe the initiation and progression of periodontal disease, and the specific microbial characteristics of the disease as it relates to dental implants
- 7411 039. Recognize the effects of systemic disease on the condition of the periodontal tissues, and the tissues ability to tolerate the rigors of implant based care
  - 7411 040. Recognize the implications of immediate implant placement (in both extraction sockets and grafts)
- 7411 041. Describe the implications of macroscopic implant design on the reaction of bone to implants, emphasis being placed on the position of 'gaps' and 'restorative margins'

#### I. Restorative options

- 7411 042. Identify the restorative alternatives for partially edentulous patients
- 7411 043. Identify and describe different abutment systems and components
- 7411 044. Describe impression procedures and master cast fabrication for partially edentulous implant patients
- 7411 045. Recognize the different occlusal philosophies associated with dental implants and partial edentulism

#### J. Anterior tooth replacement

- 7411 046. Identify the restorative alternatives for single missing anterior teeth
- 7411 047. Describe impression procedures and master cast fabrication for patients with single missing teeth
- 7411 048. Identify inter-occlusal and other records required for implant patients with single missing teeth
- 7411 049. Recognize the different occlusal philosophies associated with dental implants and single missing teeth

#### K. Soft and hard tissue augmentation

- 7411 050. Describe soft tissue enhancement and the relationship with esthetic results, along with the interrelationship between teeth and implants
  - 7411 051. Describe guided bone regeneration and other grafting procedures
  - 7411 052. Identify aspects of smile design and the interaction between soft tissue and implant dentistry
- 7411 053. Distinguish ridge augmentation techniques available for the dental implant patients, including bone grafting techniques

# L. Esthetic diagnosis and treatment for dental implant patients

7411 054. Recognize factors associated with esthetic diagnosis and treatment planning for patients requiring dental implants

### M. The use of CAD-CAM technology in esthetic implant treatment

- 7411 055. Describe alternative abutment and applications using computerized scanning and milling procedures
- 7411 056. Describe advantages and disadvantages of using computerized scanning and milling procedures

#### N. Periodontal maintenance of dental implants

- 7411 057. Describe the mechanical periodontal therapy of implant patients, including the patient typified by the presence of both teeth and dental implants and those with only dental implants
  - 7411 058. Identify the pharmacological aspects of periodontal therapy

# **VII. Course Competencies**

This course contributes to teaching to the following competencies.

- <u>Domain I</u>: Professionalism Apply standards of care in an ethical and medicolegal context to assure high quality
  patient care, appropriate informed consent, risk management, quality assurance and record keeping and delivered
  within the scope of the dentist's competence in a patient-centered environment that interfaces with diverse patient
  populations.
  - 1.Ethical Standards: Apply ethical standards to professional practice.
- <u>Domain II</u>: Health Promotion and Maintenance Educate patients and the community, based upon critical thinking and
  outcomes assessments, about the etiology of oral disease, promote preventive interventions and effectively work with
  patients to achieve and maintain a state of optimal oral health through evidence-based care.
  - 4.Critical Thinking: Apply scientific and clinical literature to make decisions about patient evaluation and treatment.
- <u>Domain III</u>: Health Assessment Evaluate the patient's medical and oral condition and plan treatment needs.
  - 9.Examination of the Patient: Perform a comprehensive patient evaluation that collects patient history
    including medication, chief compliant, biological, behavioral, cultural and socioeconomic information needed to
    assess the patient's medical, oral and extraoral conditions.
  - 10.Diagnosis: Perform a differential, provisional, or definitive diagnosis by interpreting and correlating findings
    from the history and the patient interview, the clinical and radiographic examination, and other diagnostic tests
    and develop a problem list.
  - 11.Treatment Planning: Develop properly sequenced, alternative treatment plans as appropriate to achieve
    patient satisfaction and that considers the patient's medical history and all the diagnostic data; to discuss the
    diagnosis and treatment options to obtain informed consent; and to modify the accepted plan based upon
    regular evaluation, unexpected situations, or special patient needs.
- <u>Domain IV</u>: Health Rehabilitation Perform procedures that manage oral diseases and restore the patient to optimal oral health.
  - 14.: Perform restorative and esthetic procedures that preserve tooth structure, prevent hard tissue disease, promote soft tissue health and replace missing teeth with prostheses.

#### VIII. Evaluation

#### **Evaluation**

Students will be evaluated using the measures listed below.

### Quizzes

There will be four quizzes given during the course. The quizzes are unannounced unless the Course Director makes an exception.

For a quiz given at the beginning of a lecture, you must be seated by the scheduled starting time of class: 1:55 pm (or 12:50 pm on some Wednesdays). Those who arrive after 1:55 pm (or 12:50 pm on some Wednesdays) and after the quiz begins will not be allowed to take the quiz.

Make up quizzes are available only to students who miss a quiz due to a scheduled rotation. Students who are out on rotation must take the quiz by 4:00 pm on the following Tuesday or lose the opportunity to do so. The make-up quiz can be taken in room D9-6 during office hours - please contact Ms. Nikki Nicholas for more information about make up quizzes. Please contact the course director in advance about any special situations.

## **Lab Sessions**

Attendance is required at each assigned lab session. In the event of a conflict with a rotation, the rotation will take precedence and the student should attend the alternative lab session. Failure to attend one of the three labs may result in a course grade reduction of 5%.

#### **Final Written Exam**

The final written exam will consist of multiple choice and true-false questions covering material from all lectures and the reading. Also questions may include diagrams, radiographs, and/or photos. The final exam will be given at the testing center in CG-28 or in MDL6/MDL3.

A missed final examination will require a doctor's note and if excused, the make-up examination must be scheduled within 2 business days of the missed exam or the student's return to school. The highest attainable grade on a missed exam is an 85%.

Please see Dr. Nimmo if you have any questions about evaluation of student progress or if you are having any difficulties early in the course.

#### **Grade Weights**

Quiz average 40% (based upon the three highest scores, with the lowest score dropped)

Final written exam 60%

#### Course Remediation

If a student receives an "E" grade in the course, the students must re-review all didactic material via the Mediasite recordings and ECO lecture outlines. A remediation final exam must be completed successfully with the passing score in the Grade Scale to receive a Remediated D. The remediation exam format is at the discretion of the Course Director based on the student performance and may in the form of multiple choice, short answer, essay or oral exam.

#### IX. Administrative Practices

Administrative practices for all UFCOD courses are universally applied. Exceptions to or deviations from these practices are stated in the individual syllabi by the course director. When not individually stated in the syllabus, course administrative practices default to those identified under "Administrative Practices" in the ECO sidebar for each electronic syllabus. These practices include: Professional Behavior, Student Responsibilities in the Classroom, Attendance, Dress Code, Email Policy, Tutoring, Academy Honesty and the Student Honor Code, Student Accommodations, Post-exam Review, Grading System, Remediation, Student Evaluation of Instruction, Student Complaints, University Counseling Services and Mental Health Services and Electronic Course Material and Social Media.

#### X. Grade Scale

## DEN7411C Grade Scale

Method	Letter Grade		
Scale	100		
Tolerance	0.5 (Final letter grades within this range will be rounded up.)		
A	95 - 100		
A-	92 - 95		
B+	88 - 92		
В	84 - 88		
В-	80 - 84		
C+	76 - 80		
С	70 - 76		
E	0 - 70		