<table>
<thead>
<tr>
<th>Semester with Course Reference Number (CRN)</th>
<th>Spring Semester 2011</th>
<th>76445</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor contact information</td>
<td>Tina Padilla</td>
<td>713-718-8339</td>
</tr>
<tr>
<td>(phone number and email address)</td>
<td></td>
<td><a href="mailto:tina.padilla@hccs.edu">tina.padilla@hccs.edu</a></td>
</tr>
<tr>
<td>Office Location and Hours</td>
<td>Coleman College, Rm. 522</td>
<td>Tuesday 10am – 12pm</td>
</tr>
<tr>
<td>Course Location/Times</td>
<td>Room 574</td>
<td>8am – 10am</td>
</tr>
<tr>
<td>Course Semester Credit Hours (SCH) (lecture, lab) if applicable</td>
<td>Credit Hours 2.00</td>
<td>Lecture Hours 2.00</td>
</tr>
<tr>
<td>Total Course Contact Hours</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Continuing Education Units (CEU): if applicable</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Course Length (number of weeks)</td>
<td>16 weeks</td>
<td></td>
</tr>
<tr>
<td>Type of Instruction</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>Course Description:</td>
<td>General nutrition and nutritional biochemistry with emphasis on the effects of nutrition and dental health, diet and application of counseling strategies. Implementation of these concepts will assist the patient in attaining and maintaining optimum oral health</td>
<td></td>
</tr>
<tr>
<td>Course Prerequisite(s)</td>
<td>PREREQUISITE(S): • Completion of first semester dental hygiene curriculum, with 75% or higher in all dental hygiene courses.</td>
<td></td>
</tr>
</tbody>
</table>
1. Professionalism: The dental Hygienist must be able to discern and manage ethical issues and problems in dental practice, exercise critical thinking and sound clinical judgment and communicate with other professionals.
2. Health Promotion and Disease Prevention: The dental hygienist must be competent in the performance and delivery of oral health promotion and disease prevention services in public health, private practice and alternative settings.
3. Patient Care: The dental hygienist must possess a thorough foundation in the biomedical, clinical, and behavioral sciences and be able to apply those principles in assessment, diagnosis, planning, implementation and evaluation of treatment.
4. Community Involvement: Dental hygienists must appreciate their role as health professionals at the local, state, and national levels. The dental hygienist must assess, plan, and implement programs and activities to benefit the general population. The dental hygienist must also be prepared to influence others to facilitate access to care and services.

**Course Student Learning Outcomes (SLO): 4 to 7**

1. Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice.
2. Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.
3. Prioritize the care plan based on the health status and actual and potential problems of the individual to facilitate optimal health.

**Learning Objectives**

(Numbers system should be linked to SLO - e.g., 1.1, 1.2, 1.3, etc.)

*Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice (6.9; 6.10)*

1. Know the nutritional requirements affecting geriatric, adults, adolescents, children, toddlers and infants.
2. State the Dietary Guidelines for Americans and their purpose.
3. Name the differences of RDAs, Food Guide Pyramid and the RDIs.

*Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.*

1. Understand factors that influence food intake.
2. Describe general functions of each digestive organ.
3. List physiological roles and sources of copper, selenium, chromium, and manganese.

*Prioritize the care plan based on the health status and actual and potential problems of the individual to facilitate optimal health.*

1. Understand dental hygiene consideration for clients regarding calcium, phosphorus, magnesium, and fluoride.
2. Identify considerations for Vitamins A, D, E, K, and C in dental hygiene.

**SCANS and/or Core Curriculum Competencies:** If applicable

*SCANS*

*Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice.*

Foundation Skills - Thinking -Problem Solving
Foundation Skills - Thinking -Reasoning
Workplace Competencies - Interpersonal -Teaches Others
Workplace Competencies - Interpersonal -Serves Clients/Customers

*Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.*

Workplace Competencies - Information -Acquires & Evaluates
Workplace Competencies - Information -Organizes & Maintains
Workplace Competencies - Information -Interprets & Communicates
Workplace Competencies - Information -Uses Computers to Process

*Prioritize the care plan based on the health status and actual and potential problems of the individual to facilitate optimal health.*
Instructional Methods

Student Assignments

Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice
Various assigned readings from textbooks, peer-rev
Discussions
Projects

Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services
Various assigned readings from textbooks, peer-rev
Discussions
Papers
Projects

Prioritize the care plan based on the health status and actual and potential problems of the individual to facilitate optimal health
Various assigned readings from textbooks, peer-rev
Discussions
Presentations
Projects

Student Assessment(s)

Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice
In-class discussions
Writing papers including essays, analyses, reviews, research, comparing and contrasting

Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services
No assessments selected for this outcome

Prioritize the care plan based on the health status and actual and potential problems of the individual to facilitate optimal health
In-class discussions
Writing papers including essays, analyses, reviews, research, comparing and contrasting
Instructor's Requirements

SPECIFIC COURSE OBJECTIVES

Lecture Week 1 – CH.17 100min
1/18 Syllabus/Nutritional Aspects of Dental Caries: Causes/Prevention/Treatment
1. Describe the roles of the teeth, saliva, food, and plaque in the process of caries
2. Name foods that stimulate the flow of saliva
3. Know foods with noncariogenic/cariostatic properties
4. Identify foods and their timing to reduce caries
5. Explain the dietary risk for dental caries

Lecture Week 2 – CH. 1 – 2 100min
1/25 Overview of Healthy Eating Habits and Alimentary Canal: Digestion/Absorption
1. Name six nutrient classifications of food
2. Name and state the range of servings needed in the food groups in My Pyramid
3. State the Dietary Guidelines for Americans and their purpose
4. Name the differences of RDAs, Food Guide Pyramid and the RDIs.
5. Discuss factors that influence food intake
6. Describe general functions of each digestive organ
7. Identify chemical secretions necessary for digestion of energy-containing nutrients and in what parts of the gastrointestinal tract they are secreted
8. Name the nutrients that require digestion and the digested products that can be absorbed.
9. Explain the role of gastrointestinal motility in the digestion and absorption process
10. Identify nutritional directions for digestion and absorption.

Lecture Week 3 – CH. 20 100min
2/1 Nutrition Assessment and Counseling
1. List components needed to assess the nutritional status of a patient
2. Describe communication skills a dental hygienist should have when counseling a patient
3. Be able to create a dietary treatment plan
4. Identify all information needed for an assessment of nutritional status

Week 4 Exam 1
2/8 Chapters 1, 2, 17, 20

Lecture Week 5 – CH. 3 – 4 100min
2/15 Carbohydrates and Protein
1. Identify major carbohydrates
2. Know how glucose is used in the body
3. Know the functions of dietary carbohydrate
4. State the role and need for carbohydrates and dietary fiber in daily eating
5. Describe the caries process with the role of carbohydrates.
6. Distinguish between high quality and low quality protein sources
7. Describe how proteins complement one another
8. Select food sources of adequate protein in a meat-containing and vegetarian diet
9. Explain various physiological states
10. Identify protein deficiency and excess in patient’s diet

Lecture Week 6 – CH. 5 – 6 100min
2/22 Lipids and Energy Nutrients
1. Know the chemical structure of lipids
2. Describe how fatty acids affect properties of fat
3. Identify kilocalories per gram of fat
4. Describe how fat affects our body and oral health
5. List sources of saturated, monounsaturated, polyunsaturated, omega-3 and trans fatty acid, and cholesterol
6. Calculate energy needs according to the patient’s weight and activities.
7. Identify physiological sources of energy
8. Identify BMI factors
9. Know the effects of inadequate energy intake.
10. Identify the principles for regulating energy balance to a patient

Lecture week 7 – CH. 7 – 9  100min
3/1 Vitamins/Minerals and Nutrients in Calcified Structures
1. Differentiate between water-soluble and fat-soluble vitamins
2. Identify functions, deficiencies, surpluses, and toxicities and oral symptoms for vitamins A, D, E, K, and C
3. Identify sources of A, D, E, K, and C
4. Know dental hygiene considerations for vitamins A, D, E, K, and C
5. List advantages and disadvantages of mineral supplements
6. Identify causes and symptoms of mineral excesses or deficits
7. Describe the role of water fluoridation in the prevention of dental caries
8. List dental hygiene considerations for patients regarding calcium, phosphorus, magnesium, and fluoride
9. Describe the nutritional directions for patients regarding the role of trace elements present in calcified structures
10. List reasons why large amounts of one mineral may cause nutritional deficiencies of another
11. List physiological roles and how these might apply to oral health along with sources of copper, selenium, chromium, and manganese
12. Know ultratrace elements present in the body.

Lecture week 8 – CH. 10 – 11  100min
3/8 Vitamins/Water/Minerals required for Oral Soft Tissues and Salivary Glands
1. Describe oral soft tissue changes that occur in a B-complex deficiency
2. Differentiate between scientific-based evidence versus food fads concerning vitamins
3. Discuss the role and sources of vitamin B12 for vegetarians.
4. Compare and contrast the function, sources and deficiencies or toxicities and associated symptoms of vitamins and minerals important for healthy oral soft tissues
5. Describe the association between beriberi and alcoholism
6. Identify the most prominent oral signs of iron-deficiency anemia
7. Describe the process of osmosis
8. Explain fluid and electrolyte balance
9. Identify normal fluid requirements and factors that may affect these requirements.
10. Discuss the roles, imbalances, and sources of water, sodium, potassium, iron, zinc, and iodine.
11. Describe oral signs and symptoms of fluid and electrolyte imbalances as well as iron, zinc and iodine deficiencies
12. Identify the most prominent oral symptoms or signs of iron, zinc, and iodine deficiency

3/15 **SPRING BREAK**

Week 9 Exam 2
3/22 Chapters 3 – 11
Personal Assessment Due
Lecture Week 10 – CH. 12 – 13    100min
3/29    Nutritional Requirements…Women/Infants and children
1. Discuss nutrition, supplements, and oral health considerations for pregnant and breastfeeding patients
2. Know factors that will affect fetal development
3. Identify national guideline recommendations for pregnant and lactating patients
4. Discuss physiological changes that alter children to adolescent’s nutritional status.
5. Explain how to introduce solid foods
6. Discuss ways to handle nutritional problems that occur in infants and children
7. Identify nutritional education needs for infants and children

Lecture Week 11 - CH. 14 – 15    100min
4/5    Nutritional Requirements…Older Adults and Other Considerations Affecting Nutrient Intake
1. Describe nutritional problems of older adults
2. Discuss positive dietary changes for older adults
3. Differentiate nutritional needs of younger adults vs. older adults
4. Describe how health quackery can be dangerous
5. List nutritional resources
6. Discuss economical food purchases
7. Describe how cultural food patterns can provide adequate nutrients
8. Identify proper storage in order to retain nutrients

Lecture Week 12 CH. 16; 18 – 19    100min
4/12    Effects of Systemic Disease on Nutrition and Nutritional Aspects of Gingivitis/Periodontal Disease and Alteration in the Oral Cavity
1. Identify diseases, conditions, and treatments that have oral signs and symptoms
2. Describe dental hygiene interventions for patients with systemic diseases or oral health manifestations based on dietary guidelines
3. Identify diseases, conditions, and treatments that can possibly affect nutritional intake
4. Differentiate between full liquid, mechanical soft, bland, and regular diets
5. Describe the effects of food consistency and composition in periodontal disease
6. Identify the role nutrition plays in periodontal health and disease
7. Discuss dietary guidelines for patients undergoing oral surgery and a patient with a new denture, before and after insertion
8. Identify signs and symptoms of xerostomia and glossitis

Week 13 Exam 3
4/19    Chapters 12 – 16; 18 – 19

Lecture Week 14    100min
4/26    Case Presentation

Lecture Week 15    100min
5/3    Case Presentation

Week 16 Comprehensive Final
5/10
PROFESSIONAL POLICY: Students are expected to participate fully in all activities and to model professional behavior at all times. All students are considered mature enough to seek faculty assistance and to monitor their own progress in meeting course requirements.

MAKE-UP POLICY: The student will not be able to make up exams without a doctor's note and or at the instructors discretion. The student will receive a "0" for that exam or quiz. If a makeup is given, the makeup exam will be different from the one given at the scheduled time.

ATTENDANCE POLICY:
No absences are allowed in any dental hygiene class/lab unless the student is hospitalized, or if there has been a death in the immediate family. Arrangements must be made that do not conflict with class times for doctor's appointments, sick family members, and transportation needs. In cases of emergency or illness, it is suggested that the student contact the instructor prior to class (or clinic) should an absence be anticipated. Class handouts can be obtained from the instructor. Class notes can be obtained from classmates. One point will be deducted for each absence, and ½ point for each tardy; 4 tardies will equal 1 absence. Calling prior to class does not result in an "excused" absence, but rather assists the faculty in evaluating the student's progress in professionalism. If you are not present, you are not learning the information or putting in the necessary time to develop your skills. You will receive an attendance notice every time you are tardy or absent from class.

Students will be evaluated according to the following:

A = 92-100
B = 82-91
C = 75-81
F = 69 and below**

** A final grade below a "C" (75%) will interrupt a student's progress through the Program and may result in dismissal from the Program. If you are having trouble with this course, it is your responsibility to contact the professor immediately and arrange for tutoring or other assistance.

HCC Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 100-90</td>
<td>4 points per semester hour</td>
</tr>
<tr>
<td>B = 89-80</td>
<td>3 points per semester hour</td>
</tr>
<tr>
<td>C = 79-70</td>
<td>2 points per semester hour</td>
</tr>
<tr>
<td>D = 69-60</td>
<td>1 point per semester hour</td>
</tr>
<tr>
<td>59 and below = F</td>
<td>0 points per semester hour</td>
</tr>
<tr>
<td>IP (In Progress)</td>
<td>0 points per semester hour</td>
</tr>
<tr>
<td>W (Withdrawn)</td>
<td>0 points per semester hour</td>
</tr>
<tr>
<td>I (Incomplete)</td>
<td>0 points per semester hour</td>
</tr>
<tr>
<td>AUD (Audit)</td>
<td>0 points per semester hour</td>
</tr>
</tbody>
</table>

IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses. To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.

See "Health Science Program/Discipline Requirements" for grading scale.
Instructor Grading Criteria

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Exams</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Instructional Materials


HCC Policy Statement:

ADA STATEMENT

“Any student with a documented disability (e.g. physical, learning, psychiatric, vision, Hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at the respective college at the beginning of each semester. Faculties are authorized to provide only the accommodations requested by the Disability Support Services Office. The information in this publication will be made available in large print, taped or computer-based format upon request”. The ADA Counselor for Coleman College is located on the 1st floor.

ACADEMIC HONESTY STATEMENT

“Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty”. See the HCCS Student Handbook for more information.

NOTICE:

“Students who repeat a course three or more times face significant tuition/fee increases at HCC and other Texas public colleges and universities. Please ask your instructor/counselor about opportunities for tutoring or other assistance prior to considering course withdrawal, or if you are not receiving passing grades”.

Access Student Services Policies on their Web site: http://hccs.edu/student-rights

Distance Education and/or Continuing Education Policies


Access CE Policies on their Web site: http://hccs.edu/CE-student-guidelines
<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction to Syllabus</td>
<td></td>
</tr>
<tr>
<td>January 18</td>
<td>Nutritional Aspects of Dental Caries: Causes/Prevention/Treatment</td>
<td>Stegeman: Ch. 17</td>
</tr>
<tr>
<td>Week 2</td>
<td>Overview of Healthy eating Habits</td>
<td></td>
</tr>
<tr>
<td>January 25</td>
<td>Alimentary Canal: Digestion/Absorption</td>
<td>Stegeman Ch. 1-2</td>
</tr>
<tr>
<td>Week 3</td>
<td>Nutritional Assessment and Counseling</td>
<td></td>
</tr>
<tr>
<td>February 1</td>
<td></td>
<td>Stegeman: Ch. 20</td>
</tr>
<tr>
<td>Week 4</td>
<td></td>
<td>Exam 1</td>
</tr>
<tr>
<td>February 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>Carbohydrates: Efficient fuel</td>
<td></td>
</tr>
<tr>
<td>February 15</td>
<td>Protein: Cellular Foundation</td>
<td>Stegeman: Ch 3-4</td>
</tr>
<tr>
<td>Week 6</td>
<td>Lipids: Condensed Energy</td>
<td></td>
</tr>
<tr>
<td>February 22</td>
<td>Energy Nutrients: Metabolism/Balance</td>
<td>Stegeman: Ch 5-6</td>
</tr>
<tr>
<td>Week 7</td>
<td>Vitamins/Minerals</td>
<td></td>
</tr>
<tr>
<td>March 1</td>
<td>Nutrients in Calcified Structures</td>
<td>Stegeman: Ch. 7-9</td>
</tr>
<tr>
<td>Week 8</td>
<td>Vitamins/Water/Minerals</td>
<td></td>
</tr>
<tr>
<td>March 8</td>
<td>For Oral Soft Tissues &amp; Salivary Glands</td>
<td>Stegeman Ch 10-11</td>
</tr>
<tr>
<td>March 15</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>Week 9</td>
<td>Personal Assessment Due</td>
<td>Exam 2</td>
</tr>
<tr>
<td>March 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 10</td>
<td>Nutrients Requirements…Women/Infants and children</td>
<td></td>
</tr>
<tr>
<td>March 29</td>
<td></td>
<td>Stegeman Ch. 12-13</td>
</tr>
<tr>
<td>Week 11</td>
<td>Nutritional Requirements…Older Adults Other Considerations Affecting Nutrient Uptake</td>
<td>Stegeman: Ch. 14-15</td>
</tr>
<tr>
<td>April 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 12</td>
<td>Effects of Systemic Disease on Nutrition Nutritional Aspects of…in the Oral Cavity</td>
<td>Stegeman: Ch.16 &amp; 18-19</td>
</tr>
<tr>
<td>April 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 13</td>
<td></td>
<td>Exam 3</td>
</tr>
<tr>
<td>April 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 14</td>
<td>Case Presentation</td>
<td></td>
</tr>
<tr>
<td>April 26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 15</td>
<td>Case Presentation</td>
<td></td>
</tr>
<tr>
<td>April 26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 16</td>
<td></td>
<td>Comprehensive Exam Final</td>
</tr>
<tr>
<td>May 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Changes to this syllabus shall be made upon written notice to the student due to extenuating circumstances or to ensure the academic integrity of this course.
Syllabus Agreement

I have read this syllabus; I understand its implications and will abide by it. I understand that if I fail to adhere to these requirements I will be advised by my instructor the disciplinary actions that will be taken against me. I understand that the course coordinator has the right to make alterations to the class and exam schedule as needed.

Signature of Student: _________________________ Date_____________

Print Name: _________________________________

Instructors Signature: _________________________ Date _____________