COURSE SYLLABUS

COURSE NO., HOURS AND TITLE: DH 218-2 Dental Radiology I

COURSE INSTRUCTOR: Jennifer S. Sherry, RDH, MSEd (Course Director)
Associate Professor, Dental Hygiene, School of Allied Health
Office: ASA Room 130
Phone: 618-453-8891(O); 618-985-4933 (H—only in emergency);
618-967-9424 (only call if you cannot reach me via office or home)
E-mail: clnteth@siu.edu/jenlater@msn.com

OFFICE HOURS: Mon. 1 PM-3 PM; Tues. 10 AM-12 PM; Wed. 1 PM-3 PM
or by appt.

CLASS MEETING TIMES/LOCATION: Lecture, two hours weekly: Monday 10-11:50 am, ASA Room 9D;
August 22, 2016 through December 9, 2016; Final: Thursday, December 15, 2016 at 12:30 PM to 2:30 PM; ASA
Room 9D.

ACADEMIC HONESTY: Students are expected to adhere to the policies regarding academic dishonesty and
plagiarism, found in the latest edition of the SIUC Student Conduct Code
http://policies.siu.edu/documents/StudentConductCodeFINALMay32011.pdf and
http://studentlife.siu.edu/policies_resources/resources.html. All students are expected to adhere to a strict code of
academic honesty. Academic dishonesty will be addressed according to the “Policies and Procedures Applicable to
Academic Dishonesty” as stated in the Important Information for Students, Faculty, & Staff booklet.
From the Student Conduct Code, section II, article A:

Acts of Academic Dishonesty: Plagiarism, representing the work of another as one’s own work; Preparing work for
another that is to be used as that person’s own work; Cheating by any method or means; Knowingly and willfully
falsifying or manufacturing scientific or educational data and representing the same to be the result of scientific or
scholarly experiment or research; Knowingly furnishing false information to a university official relative to
academic matters; Soliciting, aiding, abetting, concealing, or attempting conduct in violation of this code. Sanctions
will be imposed for violations of this policy in accordance with the Student Conduct Code. A copy of the Important
Information for Students, Faculty & Staff booklet can be obtained from the Office of the Vice Chancellor for Student
Affairs, Mail code 4308, Southern Illinois University, Carbondale, IL 62901-4308.

Dental Hygiene Specific System: If the student is involved in any acts of academic dishonesty, they will be
disciplined. The discipline action will be decided by the faculty for this course as well as the Program Director for
Dental Hygiene. This action will also be documented in the students’ permanent file. The student will also sign a
form that states they understand and agree with discipline.

ADA ACCOMMODATIONS: In keeping with the goal of the implementation of the Americans with Disabilities Act
(ADA), all students for whom this act applies should notify the instructor immediately. If any student needs special
services, please contact a faculty member or Disability Support Services at 453-5738. Peer tutors are also available;
see Robert Broomfield, Academic Advisor for the School of Allied Health for details.

EMERGENCY PROCEDURES:
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and
work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with
the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency
response information is available on posters in buildings on campus, available on the BERT’s website at
www.bert.siu.edu, Department of Public Safety’s website www.dps.siu.edu (disaster drop down) and in the
Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.
Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting
your location. It is important that you follow these instructions and stay with your instructor during an
evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

COURSE DESCRIPTION:

218-2 Dental Radiology I. The student is introduced to principles of radiation biology and protection, x-ray production, image formation, and intraoral radiographic techniques. Lecture two hours. Length of course: 16 weeks. Concurrent enrollment in DH 218L. Restricted to DH majors only and approval from the School of Allied Health or the DH program.

PROGRAM COMPETENCIES:

Core Competencies (C)
C.1 Apply a professional code of ethics in all endeavors.
C.2 Adhere to state and federal laws, recommendations, and regulations in the provision of oral health care.
C.6 Continuously perform self-assessment for lifelong learning and professional growth.
C.9 Apply quality assurance mechanisms to ensure continuous commitment to accepted standards of care.
C.11 Record accurate, consistent, and complete documentation of oral health services provided.

Health Promotion and Disease Prevention (HP)
HP.5 Evaluate factors that can be used to promote patient adherence to disease prevention or health maintenance strategies.
HP.6 Utilize methods that ensure the health and safety of the patient and the oral health professional in the delivery of care.

COURSE OBJECTIVES: These objectives will be monitored by the course faculty and the student will be evaluated to determine competency in each area. The student must be able to:

Differentiate the types and principles of ionizing radiation and how the concepts link to clinical practice.
Identify all the parts of the dental x-ray unit including the control panel, the properties of the beam and how the beam generates energy.
Describe the concept of image formation and factors that influence image formation.
Discuss the history of image receptors, film definition, and the need for intensifying screens in dentistry.
Illustrate the biological effects of radiation and how they influence clinical dental hygiene and radiology.
Investigate the proper ways to limit radiation exposure to patient and operator and receive quality diagnostic images.
Explore the darkroom, processing radiographs and recognizing processing errors.
Recognize technique errors and how to remedy these errors.
Discriminate between a quality set of bitewing radiographs using the vertical and horizontal technique.
Recognize basic information seen used in radiographic interpretation.
**TOPICAL OUTLINE:**

<table>
<thead>
<tr>
<th>Course Topics</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation History (self-study)</td>
<td>0%</td>
</tr>
<tr>
<td>Dental X-ray Equipment</td>
<td>8%</td>
</tr>
<tr>
<td>Bite-wing Technique</td>
<td>8%</td>
</tr>
<tr>
<td>Paralleling Technique</td>
<td>16%</td>
</tr>
<tr>
<td>Mounting/Viewing</td>
<td>8%</td>
</tr>
<tr>
<td>Introduction to Radiographic Examinations (self-study)</td>
<td>0%</td>
</tr>
<tr>
<td>Radiation Physics</td>
<td>8%</td>
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<tr>
<td>Radiation Characteristics</td>
<td>8%</td>
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<tr>
<td>Exposure and Technique Errors</td>
<td>16%</td>
</tr>
<tr>
<td>Radiation Biology</td>
<td>16%</td>
</tr>
<tr>
<td>Radiation Protection</td>
<td>8%</td>
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<tr>
<td>Dental X-Ray Film Processing</td>
<td>8%</td>
</tr>
<tr>
<td>Normal Anatomy: Intraoral Images</td>
<td>16%</td>
</tr>
<tr>
<td>Quality Assurance in the Dental Office</td>
<td>8%</td>
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<tr>
<td>Dental Radiographs and the Dental Radiographer</td>
<td>8%</td>
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<tr>
<td>Dental X-Ray Film</td>
<td>8%</td>
</tr>
<tr>
<td>Dental X-Ray Image Characteristics</td>
<td>8%</td>
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<tr>
<td>Patient Relations and the Dental Radiographer</td>
<td>8%</td>
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<tr>
<td>Patient Education and the Dental Radiographer</td>
<td>8%</td>
</tr>
<tr>
<td>Introduction to Image Interpretation</td>
<td>5%</td>
</tr>
<tr>
<td>Descriptive Terminology</td>
<td>8%</td>
</tr>
<tr>
<td>Radiology Jeopardy &amp; Review for Final Exam</td>
<td>8%</td>
</tr>
</tbody>
</table>

**TOTAL TIME: 100%**

**TEXTBOOKS**:  

**Required:**  

**Recommended:**  
**Handouts and case studies will be utilized in lecture experiences.**

**ATTENDANCE POLICY:** You are allowed 1 absence during the semester. This is not considered a “FREEBIE” day. This is to be utilized ONLY if you are ill or have an emergency (such as a death/funeral or hospital stay). You will receive a ZERO (0) for the quiz you missed if it is not made up the next day after the absence! Attendance will be taken in lecture. I do not give make-up exams or quizzes unless it has been cleared to do so by myself. You are advised to keep all absences to a minimum. **Two (2) absences will be a 5% deduction in your final grade and three (3) absences will be a 10% (FULL LETTER GRADE) deduction.**

All pagers, cell phones, MP3 players, iPods™, or other electronic devices with the exception of those directly related to the well-being of the student MUST be turned off or silenced. If you must receive a phone call during class, please sit to the rear of the room nearest the door to make a quiet exit. This does not include calls from a patient to make or cancel an appointment. Excessive talking and chatter while the instructor or classmate has the “floor” is not only disrespectful, but also disruptive towards the accomplishment of the objectives—Please DO NOT DO IT.

**COURSE DELIVERY/METHODOLOGY:**
Course delivery is lecture format, utilizing Power Point slides, class discussion, image review, and case studies.

**GRADING/FINAL GRADE/GRADING SCALE:**

**How the final grade is calculated:** All assignments, exams, quizzes, case studies and other assignments are graded on a point system. At any time, the student can take the points they received and divide by the points possible to figure their grade in the course. All of the points are recorded on Desire 2 Learn (D2L) computer system through Southern Illinois University Carbondale and grades are updated often. You must receive a “C” or higher in this course.

**Grading scale:**
- A=100-90
- B=89-80
- C=79-70
- D=69-60
- F=59 OR BELOW

**Understanding the minimum grade requirement:** If you do not complete all the requirements for DH 218, you will fail the course “F” and have to repeat it. If you are not completed, you will not be able to continue in the dental hygiene program curriculum sequence. Please check with Ms. Miller or Mr. Broomfield on instructions regarding curriculum sequence. The minimum passing grade in DH 218 is a “C”. If a “D” or “F” is earned, the student must be dropped from the program sequence and retake the course the following fall semester. The student may have to take an independent study in the spring semester to ensure you stay current with techniques and information.

**INSTRUCTIONAL OBJECTIVES WILL BE POSTED ON THE DESIRE 2 LEARN SITE FOR DH 218.**
Course Requirements/Grading:  

**Lecture:** Written Examinations  

1. Exam #1  
   100 points  
2. Exam #2  
   100 points  
3. Exam #3  
   100 points  
4. Comprehensive Final  
   100 points  
5. Quizzes/Assignments/Case Studies  
   (may be announced or unannounced)  
   Quiz 1 (35 pts.); Quiz 2 (15 pts.); Case Study (10 pts.); Quiz 3 (15 pts.); Essay (10 pts.)—these are predicted points for these activities!

**TOTAL POINTS POSSIBLE**  

490 points
# DH 218 Fall 2016---Dental Radiology I

## Course Schedule (Lecture may be adjusted at discretion of the professor)

<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Lecture</th>
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<tbody>
<tr>
<td>8/22/16</td>
<td>Syllabus &amp; Discuss Lab/etc.—Robert Broomfield coming to class&lt;br&gt;<strong>Chapter 1:</strong> Radiation History (pg. 2-7)—<strong>read through on your own</strong>&lt;br&gt;<strong>Chapter 6:</strong> Dental X-ray Equipment (pg. 54-59)—<strong>read through on your own before lab next week!!</strong> We will cover these terms in lab along with instruction on the equipment.&lt;br&gt;<strong>Chapter 19:</strong> Bite-Wing Technique (pg. 197-213)</td>
</tr>
<tr>
<td>8/29/16</td>
<td><strong>QUIZ: CHAPT. 1, 6, 19</strong>&lt;br&gt;<strong>Chapter 17:</strong>&lt;br&gt;Paralleling Technique (pg. 152-174)&lt;br&gt;<strong>Chapter 28:</strong> Film Mounting and Viewing (pg. 338-350)</td>
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<tr>
<td>9/5/16</td>
<td><strong>NO LECTURE:</strong>&lt;br&gt;<strong>LABOR DAY</strong></td>
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<tr>
<td>Week/Date</td>
<td>Lecture</td>
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<tr>
<td>9/12/16</td>
<td>EXAM #1: CHAPTERS: 1, 6, 17, 19, 28→ First ½ of class</td>
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<td>2nd ½ of class:</td>
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<td></td>
<td>Chapter 16: Introduction to Dental Imaging Examinations (pg.148-151)—read on your own</td>
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<tr>
<td>9/19/16</td>
<td>Chapter 2: Radiation</td>
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<td></td>
<td>Physics (pg. 8-23)</td>
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<td></td>
<td>Chapter 3: Radiation Characteristics (pg. 24-30)</td>
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<tr>
<td>9/26/16</td>
<td>Continue Chapter 3 (if necessary)</td>
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<td></td>
<td>Chapter 20: Exposure and Technique Errors (pg. 214-227)</td>
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<tr>
<td>10/3/16</td>
<td>QUIZ: CHAPT. 2, 3, 16, 20</td>
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<td></td>
<td>Chapter 4: Radiation Biology (pg. 31-41)</td>
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<td></td>
<td>Chapter 5: Radiation Protection (pg. 42-52)</td>
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<tr>
<td>10/10/16</td>
<td>NO LECTURE: Fall Break</td>
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<tr>
<td>10/17/16</td>
<td>EXAM #2: CHAPTERS 2, 3, 4, 5, 16, 20→ First ½ of class</td>
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<td>2nd ½ of class:</td>
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<td>Chapter 9: Film Processing (pg. 82-103)</td>
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<td>Week/Date</td>
<td>Lecture</td>
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<tr>
<td>10/24/16</td>
<td><strong>Chapter 27:</strong> Normal Anatomy: Intraoral Images (pg. 312-337)</td>
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<tr>
<td>10/31/16</td>
<td><strong>Chapter 27:</strong> Normal Anatomy: Intraoral Images CONTINUED and REVIEW on topics to this point (pg. 325-344)</td>
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<tr>
<td>11/7/16</td>
<td><strong>Chapter 10:</strong> Quality Assurance in the Dental Office (pg. 104-111)</td>
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<td><strong>Chapter 11:</strong> Dental Images and the Dental Radiographer (pg. 113-117) — <strong>read on your own</strong></td>
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<td>Case study: <strong>In class or out of class-TBA</strong></td>
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<tr>
<td>11/14/16</td>
<td><strong>QUIZ: CHAPT. 9, 10, 11, 27</strong></td>
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<td><strong>Chapter 7:</strong> Dental X-Ray Film (pg. 60-71)</td>
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<td><strong>Chapter 8:</strong> Dental X-Ray Image Characteristics (pg. 72-81)</td>
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<tr>
<td>11/21/16</td>
<td><strong>Chapter 12:</strong> Patient Relations and the Dental Radiographer (pg. 118-123)</td>
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<td></td>
<td><strong>Chapter 13:</strong> Patient Education and the Dental Radiographer (pg. 124-129)</td>
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<td></td>
<td>Assign essay on Patient Relations and give instruction sheet</td>
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<tr>
<td>Week/Date</td>
<td>Lecture</td>
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<tr>
<td>11/28/16</td>
<td>TURN IN ESSAY AT BEGINNING OF CLASS</td>
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<td></td>
<td>EXAM #3: CHAPTERS 7, 8, 9, 10, 11, 12, 13, 27 first ½ of class</td>
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<td></td>
<td>Chapter 30: Introduction to Image Interpretation (pg. 363-367): Examples…</td>
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<td></td>
<td>Chapter 31: Descriptive Terminology (pg. 368-380)</td>
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<tr>
<td>12/5/16</td>
<td>INSTRUCTOR EVALUATIONS</td>
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<tr>
<td></td>
<td>“RADIOLOGY JEOPARDY”</td>
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<td></td>
<td>REVIEW SESSION FOR FINAL EXAM!!!</td>
</tr>
<tr>
<td>12/12/16</td>
<td>COMPREHENSIVE FINAL EXAM: Thursday, December 15, 2016 at 12:30 PM to 2:30 PM; ASA Room 9D.</td>
</tr>
</tbody>
</table>
IMPORTANT DATES
Semester Class Begins: 08/22/2016
Last day to add full-term course (without Dean’s signature): 08/28/2016
Last day to withdraw from the University with a full refund: 09/02/2016
Last day to drop a full-term course for a credit refund: 09/04/2016
Deadline to apply to graduate at the end of this term: 09/16/2016
Last day to drop a full-term course (W grade, no refund): 10/30/2016
Final examinations: 12/12 - 12/16/2016
Commencement: 12/17/2016

Note: For more detailed information on the above deadlines, please visit http://Registrar.siu.edu/calendars. For adding dates that apply to shorter-than-full-term courses, please look at the Schedule of Classes search results at http://Registrar.siu.edu/schedule/index.html

FALL SEMESTER HOLIDAYS
Labor Day Holiday 09/05/2016
Fall Break: 10/08 - 10/11/2016
Veterans Day Holiday 11/11/2016

WITHDRAWAL POLICY – Undergraduate only
Students who officially register for a session must officially withdraw from that registration in a timely manner to avoid being charged as well as receiving a failing grade for those classes. An official withdrawal must be initiated by the student, or on behalf of the student through the academic unit, and be processed by the Registrar’s office. For the proper procedures to follow when dropping courses and when withdrawing from SIU visit http://Registrar.siu.edu/Students/withdraw.html

INCOMPLETE POLICY – Undergraduate only
An INC grade may be assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments for the course. An INC must be changed to a completed grade within one full semester (undergraduates), and one full year (graduate students), from the close of the term in which the course was taken or graduation, whichever occurs first. Should the student fail to complete the remaining course requirements within the time period designated, the incomplete will be converted to a grade of F and such grade will be computed in the student’s grade point average. For more information visit http://Registrar.siu.edu/Grades/incomplete.html

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit more than once. For students receiving a letter grade of A, B, C, D, or F, the course repetition must occur at Southern Illinois University Carbondale. Effective for courses taken Summer 2013 or later, only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. This policy will be applied to all transferable credit in that only the last grade received will be used to calculate grade point average. Only those courses taken at the same institution are considered repeats under this policy. See full policy at http://Registrar.siu.edu/Students/repeats/classes.html

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please refer to the graduate catalog at http://graduate.siu.edu/about-us/grad-catalog/index.html

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides coordinated and referral services. To utilize DSS services, students must contact DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://disabilityservices.siu.edu/

PLAGIARISM
Student Conduct Code: http://sp.siu.edu/student_conduct_code/

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here:
http://safe.siu.edu

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For information on Saluki Cares, call 455-1492, email succares@siu.edu, or http://salukicare.siu.edu/index.html

SIU’S EARLY WARNING INTERVENTION PROGRAM (EWIP)
Students enrolled in courses participating in SIU’s Early Warning Intervention Program might be contacted by University staff during a semester. More information can be found at the Core Curriculum’s Overview webpage: http://corecurriculum.siu.edu/programs-overview/

EMERGENCY PROCEDURES
We ask that you become familiar with Emergency Preparedness @ SIU. Emergency response information is available on posters in buildings on campus, on the Emergency Preparedness @ SIU website, and though text and email alerts. To register for alerts visit http://emergency.siu.edu/

INCLUSIVE EXCELLENCE
SIU contains people from all walks of life, from many different cultures and sub-cultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well as an essential preparation for any career. For more information visit: http://www.archives/excellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:
Tutoring: http://tutoring.siu.edu/
Math Labs: http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a center or Schedule an appointment please visit:
http://write.siu.edu/

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office’s main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit http://diversity.siu.edu/

MILITARY COMMUNITY
There are complexities of being a member of the military community and also a student. Drill schedules, calls to active duty, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate academic life. If you are a member of the military community and need in need of accommodations please visit Veterans Services at http://veterans.siu.edu/ Additional Resources:
ADVISEMENT: http://advisement.siu.edu/
SIU ONLINE: http://online.siu.edu/
SALUKINET: https://salukinet.siu.edu/
MORRISLIBRARY HOURS: http://www.lib.siu.edu/

Fall 2016/09/01/2016