COURSE: **CIS 266 Web Services**
CREDIT: 3 semester credits

INSTRUCTOR: Huda Judeh
E-mail: huda.judeh@southeasttech.com
Phone: (650)787-1096
SCHOOL: Southeast Technical Institute
ADDRESS: 2320 N. Career Avenue, Sioux Falls, SD 57107

DESCRIPTION: This course addresses the demand for computer programmers who are familiar with how to program Web Services and the related technologies. Web Services may utilize newer technologies including JavaScript Object Notation **(**JSON), Extensible Markup Language (XML), Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL), and Universal Description Discovery and Integration (UDDI). The course covers the Web Services model, Web Services standards currently available, best practices, and how to apply these concepts to developing and implementing Web Services. It discusses Web Services from a business and a technical perspective, explains how Web Services can be used to address various business problems and demonstrates Web Services related to application integration. Students will also be required to post an Electronic Portfolio to a remotely accessible Internet site.

PREREQUISITES: CIS241, CIS249

TEXTBOOKS: ***(note: two textbooks are required for this course)***
CIS249
Murach, Joel, and Michael C. Urban. *Murach's Beginning Java with Eclipse.* Mike Murach & Associates, Inc, 2015.
ISBN 978-1-890774-89-9
CIS241
Murach, Joel, and Ray Harris. *Murach's PHP and MySQL.* 3rd ed., Mike Murach & Associates, Inc., 2017.
ISBN 978-1-943872-38-1

COMPETENCIES: The student should have the following skills upon successful completion of this course:

- A general understanding of Web Services and how to apply them to building business applications
- A basic understanding of JSON, XML, SOAP, WSDL, and UDDI technologies
- Ability to create, test, and debug simple RESTful Web Service clients using AJAX/AJAJ
- Ability to create, test, and debug simple RESTful Web Service providers using PHP
- Ability to create, test, and debug SOAP Web Services clients & providers using Java with IBM's WebSphere as the RAD IDE

BASIS FOR EVALUATION:

Exams & Quizzes (50% of grade) - Four exams will be given during the semester. Exams will consist primarily of open book/open computer performance tests. **Make-up exams are not available unless mutually agreed to and scheduled BEFORE the related test date**.

Lab Assignments (30% of grade) - Students will be assigned lab exercises. Due dates will be set by the instructor and all lab exercises must be handed in on or before their due date unless an arrangement **on or before** the due date is mutually agreed to by the student and the instructor.

Forums Participations (10% of grade) - Students will be assigned to participate in a weekly discussion forum. Each student should submit one post and reply to two other posts.

Electronic Portfolios (10% of grade) - Students will be required to post an Electronic Portfolio to a remotely hosted site that is accessible from the Internet. The portfolio must be professional in appearance and include demonstrations and/or documentation of dynamic web applications programmed for each of the server-side programming languages taught at STI as part of the CIS Programming degree requirements (C#, Java, and PHP) and client-side languages including HTML, CSS, & JavaScript. The student's Electronic Portfolio site must also include a demonstration of a web application interfacing with a unique database they design utilizing a DBMS such as MySQL and a RESTful AJAJ/PHP web service.

GRADING

Grades will be earned on a point system, and will be determined by using the following formula:

(PointsEarned – Deductions) / PointsPossible

The grading scale is as follows:

A+ = 99 to 100	A = 94 to 98.99	A- = 89.5 to 93.99
B+ = 89 to 89.49	B = 84 to 88.99	B- = 79.5 to 83.99
C+ = 79 to 79.49	C = 74 to 78.99	C- = 69.5 to 73.99
D = 63 to 69.49	D- = 59.5 to 62.99	F = 0 to 59.49

The +/- designators are not used to calculate Grade Point Average (GPA) on STI transcripts

DUE DATES

It is expected that students demonstrate responsibility and commitment to learning by submitting all assignments on or before the designated due date given by the instructor.

STUDENT RESPONSIBILITY

It is the student's responsibility to be an active participant in class. Integrity and professional work ethics will be demonstrated by the instructor and required from the students. Misuse of the computer resources may result in disciplinary action. Please refer to your Student Handbook for more details. Cheating and plagiarism will result in a zero for that work for both the student that provided the information used for cheating and the student who used that information. Further unethical behavior will result in a failing grade for the course. Refer to your SETI Student Handbook for additional school policies.

The instructors and the faculty members in this course will act with integrity and strive to engage in equitable verbal and nonverbal behavior with respect to differences arising from age, gender, race, handicapping conditions and religion. If you have special needs as addressed by the American with Disabilities Act and need course materials in alternative formats, notify your instructor immediately. Reasonable efforts will be made to accommodate your special needs.

STUDENT SUCCESS

Student success is important to our faculty, and all faculty are involved in assessing learning. Upon completion of a degree, Southeast graduates will have demonstrated competence in the following areas:

1. **Technology**: Graduates will be able to understand industry-relevant technical concepts (knowledge) and demonstrate industry-relevant technical skills (performance).

2. **Communication**: Graduates will be able to define the purpose of the communication they are using, organize and structure the communication, and provide supporting materials for this communication. Graduates will demonstrate precision of language and will be able to professionally deliver and format the communication.

3. **Problem Solving & Critical Thinking**: Graduates will be able to define a problem as it relates to their field of study. They will demonstrate the ability to analyze the problem, generate solutions, evaluate solutions, and select the best solution.

4. **Professionalism**: Graduates will be able to demonstrate positive work ethic, collaborate as part of a team, adapt to change, adhere to professional standards, and model integrity and ethics.