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

INSTRUCTOR: Gary Kappenman
OFFICE: TC202
E-mail: gary.kappenman@southeasttech.com
SCHOOL: Southeast Technical Institute
ADDRESS: 2320 N. Career Avenue, Sioux Falls, SD 57107

DESCRIPTION: This course addresses the rapidly growing demand for computer programmers who are familiar with how to program Web Services. Web Services may utilize newer technologies including 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 both a business and 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 complete additional development work on their electronic portfolios during the course.

PREREQUISITES: CIS241, CIS249

TEXTBOOKS: "IBM WebSphere Application Server V7.0 Web Services Guide" (this textbook is available in pdf form free over the Internet) and the textbook from the CIS249 course that you must have completed prior to taking this course: "Murach's Java SE 6", by Joel Marach, Andrea Steelman. ISBN: 978-1-890774-42-4 or "Murach's Java Programming 4th Edition", by Joel Murach. ISBN: 978-1-890774-65-3.

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 XML, SOAP, WSDL, and UDDI technologies
- Ability to create, test, and debug Web Services using IBM's WebSphere as the RAD IDE
- Ability to create, test, and debug 3-tier Object Oriented Programming applications which include databases and have web and desktop user front ends and to relate these approaches to applications utilizing Web Services to access databases.

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.

Electronic Portfolios (20% of grade) - Students will be asked to complete development work on their electronic portfolios begun in CIS241 and CIS249. The portfolios must be professional in appearance (typically created with Dreamweaver or a similar web site design tool) and include demonstrations of 3-tier dynamic web

applications programmed in at least two of the programming languages taught at STI as part of the CIS Programming degree (C#.NET, Java, or PHP) and interfacing with a unique database(s) they design utilizing a DBMS such as Microsoft Access, SQL Server, MySQL, or Derby. Milestone due dates for their electronic portfolios will be set by the instructor and portfolios must be submitted 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.

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:

Science and Technology: Technical competence including knowledge of technology and/or scientific principles as these apply to programs.

Problem Solving & Critical Thinking: The ability to select and use various approaches to solve a wide variety of problems – scientific, mathematical, social and personal. Graduates will also be able to evaluate information from a variety of perspectives, analyze data, and make appropriate judgments.

Communication: The ability to communicate effectively in several forms – oral, written, nonverbal and interpersonal. Graduates will also demonstrate knowledge of how to manage and access information.

Professionalism: Strong work ethic, including responsible attendance; skill in teamwork and collaboration, as well as an ability to work with others, respecting diversity; ability to adapt to change; commitment to lifelong learning; adherence to professional standards; and positive self-esteem and integrity.`