



Dana G. Hoyt

Sam Houston State University

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™

OFFICE OF THE PRESIDENT

April 27, 2015

Dr. Belle S. Wheelan, President
Southern Association of Colleges and Schools
Commission on Colleges
ATTN: Substantive Change Office
1866 Southern Lane
Decatur, GA 30033

Dear Dr. Wheelan:

Per SACSCOC requirements, we are submitting a substantive change document to provide the necessary information relating to our offering of a dual academic award of the Bachelor of Science degree with a major in Computer Software Engineering Technology with Firat University in Elazig, Turkey. Please find enclosed the *Substantive Change Documentation of Compliance with SACSCOC Policy Statement "Agreements Involving Joint and Dual Academic Awards: Polies and Procedures."* Please let me know if you need additional information.

Sincerely,

Jaimie Hebert (Provost) on behalf of Dana Hoyt

Dana L. Hoyt
President

c. Somer Franklin, SHSU SACSCOC Liaison

Substantive Change Documentation of Compliance with SACSCOC Policy Statement “Agreements Involving Joint and Dual Academic Awards: Policies and Procedures”

Name of institution: Sam Houston State University

Statement of Intent:

As communicated in its letter of notification dated April 10, 2015, Sam Houston State University (SHSU) notifies the SACSCOC of an agreement to grant a dual academic award of the Bachelor of Science Degree with a Major in Computer Software Engineering Technology with Firat University in Elazig, Turkey and provides the following documentation of policy compliance for dual degree awards.

Starting date: Fall 2015

Brief Description of Agreement:

Effective with the fall 2015 semester, SHSU will enter into a dual degree program agreement with Firat University in Elazig, Turkey. The dual degree program will allow undergraduate students majoring in Software Engineering at Firat University and Computer Software Engineering Technology at SHSU to receive dual degrees: one from Firat University and one from SHSU.

Students participating in the dual degree program will receive the initial two years of instruction from Firat University with transfer evaluation conducted to transfer this coursework to SHSU. The dual degree students will then receive their final two years of instruction at SHSU, subject to all SHSU admission and degree requirements. A detailed substantive change prospectus and a copy of the signed agreement will follow under separate cover.

Address and Contact Information:

Prof. Dr. Asaf Varol
Department Chair, Software Engineering
College of Technology
Firat University,
23119 Elazig
Turkey

Dr. John Pascarella
Dean, College of Sciences
Sam Houston State University
1900 Avenue I/Box 2209
Huntsville, TX 77341
936-294-1401
Jbp014@shsu.edu

Copy of Signed Agreement (see enclosed)

The enclosed dual degree agreement between Sam Houston State University and Firat University was originally signed in May, 2011. After its initial signing, the project was placed on hold while curricular matters (i.e., transfer articulation, degree requirements, etc.) were discussed and refined. Since that time, SHSU has worked closely with Firat University on these matters. The finalized curriculum is reflected within this substantive change document, with an updated agreement scheduled to be signed in 2016.

The enclosed dual degree agreement between Sam Houston State University and Firat University references the intention to offer both the Bachelor of Science degree in Software Engineering (since renamed to Computer Software Engineering Technology) and the Bachelor of Science degree in Digital Forensics at SHSU. At this time, SHSU prepares to implement only the dual degree program in Computer Software Engineering

Technology, and will delay implementation of the dual degree program in Digital Forensics until 2017.

Disclaimer Statement

SHSU will include the following disclaimer statement in any documents describing the agreement between SHSU and Firat University.

Sam Houston State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelor's, master's, and doctoral degrees. Firat University is not accredited by SACS Commission on Colleges and the accreditation of Sam Houston State University does not extend to or include Firat University or its students. Further, although Sam Houston State University agrees to accept certain course work from Firat University to be applied toward an award from Sam Houston State University, that course work may not be accepted by other colleges or universities in transfer, even if it appears on a transcript from Sam Houston State University. The decision to accept course work in transfer from any institution is made by the institution considering the acceptance of credits or course work.

Percentage of Coursework Offered by Member Institution

The first two years of the degree program will be taught at Firat University. The Junior and Senior years will be taught at Sam Houston State University. Students will transfer 60 hours of coursework from Firat University to Sam Houston State University. SHSU will teach 60 hours of coursework. 50% of the course work will be taught at first University. 50% of the coursework will be taught at Sam Houston State University.

SACSCOC Logo Use

Sam Houston State University and Firat University will not use the SACSCOC logo in any of its publications or advertising and recruitment materials.

Quality of Credits Recorded on Transcript

Courses transferred from Firat University to Sam Houston State University are subject to review by the appropriate department chairs, including an analysis of content and identified student outcomes. Courses are also reviewed by Sam Houston State University's Articulation Coordinator to ensure compliance and consistency with courses transferred in from equivalent Texas institutions. Additional details regarding SHSU's policies and processes for transfer of credit are addressed within standards following.

Integrity (Section 1)

The institution operates with integrity in all matters.

Sam Houston State University operates with integrity in all matters. Further, the institution affirms that it has documented compliance with the Requirements of Accreditation; complied with Commission requests, directives, decision, and policies; and made complete, accurate, and honest disclosure to the Commission.

Institutional mission (CR 2.4)

The institution has a clearly defined, comprehensive, and published mission statement that is specific to the institution and appropriate for higher education. The mission addresses teaching and learning and, where applicable, research and public service.

Sam Houston State University has a clearly defined mission statement that addresses teaching, learning, research, and public service. This mission statement has been approved by the Texas Higher Education Coordinating Board and The Texas State University System Board of Regents. The mission statement is published in the undergraduate and graduate catalogs, *Student Guidelines*, and referenced in the *Faculty Handbook*. The mission statement addresses the institutions responsibilities to teaching, research, and service as mandated by the Texas Education Code, Section 61.0511. The mission is specific to SHSU and declares that "Sam Houston State University provides high quality education, scholarship and service to qualified students for the benefit of regional, state, national and international constituencies." Based on this mission, the University is committed to:

- Fostering a lifelong learning environment in support of a diverse faculty and staff who are excellent scholars, educators and professionals.
- Promoting a stimulating learning environment through The integration of academic settings, campus culture and service.
- Increasing and develop university resources and infrastructures that support the intellectual transformation of students.
- Enhancing marketing outreach and visibility to include academic and scholarly activities through consistent and integrated messaging while optimizing communication channels.
- Promoting efficient data-driven decision making through the integration of centralized data analysis, review and dissemination.
- Cultivating a continually sensitive and proactive response to the ever-changing needs of our constituents.

Faculty (CR 2.8 and CS 3.7.1)

The number of full-time faculty members is adequate to support the mission of the institution and to ensure the quality and integrity of each of its academic programs.

The institution employs competent faculty members qualified to accomplish the mission and goals of the institution. When determining acceptable qualifications of its faculty, an institution gives primary consideration to the highest earned degree in the discipline. The institution also considers competence, effectiveness, and capacity, including, as appropriate, undergraduate and graduate degrees, related work experiences in the field, professional licensure and certifications, honors and awards, continuous documented excellence in teaching, or other demonstrated competencies and achievements that contribute to effective teaching and student learning outcomes. For all cases, the institution is responsible for justifying and documenting the qualifications of its faculty.

Sam Houston State University (SHSU) has an adequate number of full-time faculty to support its mission to provide "high quality education, scholarship, and service to qualified students for the benefit of regional, state, national and international constituencies." Furthermore, the university has adequate faculty resources to ensure the quality and integrity of its academic programs. Specifically, within the Department of Computer Science at SHSU, the following full-time equivalent faculty support the Bachelor of Science degree in Computer Software Engineering Technology:

Undergraduate Program/Discipline	Status	Unique Headcount	Full-Time Faculty Equivalent (FTE)	Percentage of FTE
Computer Science	Full Time	11	11	91.7%
	Part Time	2	1	8.3%
Digital Forensics	Full Time	3	3	100.0%

With the undergraduate program having a vast majority of its full-time equivalents being full-time, the program has an adequate number of full-time faculty to support the mission of the institution and to ensure the quality and integrity of the program.

Firat University has an adequate number of full-time faculty to support its mission to provide "high quality education, scholarship, and service to qualified students for the benefit of regional, state, national and international constituencies." The university has adequate faculty resources to ensure the quality and integrity of its academic programs. Specifically, within the Department of Software Engineering and Digital Forensics Engineering at Firat University, the following full-time equivalent faculty support the Bachelor of Science degree in Computer Software Engineering Technology and Digital Forensics Engineering Technology:

Undergraduate Program/Discipline	Status	Unique Headcount	Full-Time Faculty Equivalent (FTE)	Percentage of FTE
Computer Science	Full Time	14	14	100.0%
Digital Forensics	Full Time	7	7	100.0%

Learning resources and services (CR 2.9)

The institution, through ownership or formal arrangements or agreements, provides and supports student and faculty access and user privileges to adequate library collections and services and to other learning/information resources consistent with the degrees offered. Collections, resources, and services are sufficient to support all its educational, research, and public service programs.

Sam Houston State University provides and supports student and faculty access and user privileges to adequate library collections and services as well as to other learning/information resources consistent with the degrees offered. Collections, resources, and services are sufficient to support all of its educational, research, and public service programs. The primary source of support is the Newton Gresham Library. Additional learning/information resources needed by faculty and students are provided by numerous entities to include: Information Technology; the Student Advising and Mentoring Center; and the Math Center, the Reading Center, and the Writing Center.

The Newton Gresham Library, open 100 hours per week, provides access to a collection of over 1.3 million books and journals. The library also offers access to a variety of electronic resources including licensed books, journals, and bibliographic/full text databases. The Library subscribes to over 200 electronic databases, most of which include access to full text articles and chapters. In addition, the library has access to more than 45,000 full text journals and over 68,000 electronic books. The Library provides 24/7 remote access to its collection of electronic resources.

Students are served by electronic databases and services provided by the SHSU campus library, as well as having access to library holdings through the TexShare program. The Library's collection includes online access to primary journals in Computer Science such as the Association for Computing Machinery (ACM) Digital Library and the IEEE Computer Society Digital Library. Articles in these journals, and other important journals published in the field of Digital and Cyber Forensics, can be identified by using online indexing sources, such as Web of Science, Science and Technology Collection, or Computer Source. These online resources provide links to the full text of the articles indexed. The Library's book collection can support a program in Digital and Cyber Forensics. In addition to our print collection, the Library provides access to electronic books relevant to Digital and Cyber Forensics in Safari Online, the InfoSci Books, the ebrary and EBSCO e-book collections. Government publications and websites in both print format and electronic access make up about 20% of the resources available through the library catalog.

The TexShare program, available to all SHSU students, is a cooperative program designed to improve library service to students, faculty, and staff of Texas institutions of higher education. This program allows SHSU students, faculty and staff to have direct, personal access to library materials that are not available in the Newton Gresham Library. For distance learners, materials acquired through TexShare can be mailed at no cost to the student.

In addition, SHSU's library offers Distance Learning Services to provide reference and research assistance, instruction in the use of library resources, and delivery of books, electronic files/documents and photocopies to distance learners taking courses at sites away from the main campus. Distance learners may request books, government documents, and copies of journal articles and have them mailed at no cost, or when possible, sent electronically. Distance Learning Services may also request materials not owned by the Newton Gresham Library through Interlibrary Services (ILS). ILS will access an international database to locate and borrow materials for SHSU students and faculty.

Reference research services are also available to distance learners. The SHSU library offers assistance through the 'Ask A Librarian' and 'Text a Librarian' services, as well as assistance by phone and email. Through 'Ask A Librarian' students are able to chat online with a Reference Librarian or Assistant and get real time help. The chat service provides answers to brief factual questions, assists with databases and other resources and helps with research and assignments. Similarly, the 'Text a Librarian' service offers real time text-based help for brief factual questions relating to topics such as book availability, database search guidance, library services, etc.

Institutional Effectiveness: educational programs, to include student learning outcomes (CS 3.3.1.1)

The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of improvement based on analysis of the results

Sam Houston State University has well-established processes for assessing overall institutional effectiveness, as well as means for monitoring and ensuring the quality of its degree programs and services. As part of the institution's continuous improvement efforts, all educational and educational support programs at Sam Houston State University engage in an annual outcomes assessment process whereby they define outcomes, measure the attainment of those outcomes, and use the collected data to drive continuous improvement within their programs. Programmatic assessment plans, collected assessment results, and plans for continuous

improvement based on these results are documented within the University's online assessment management system, the Online Assessment Tracking Database (OATDB).

The annual assessment processes documented by departments and programs at SHSU through the OATDB are monitored by the Office of Academic Planning and Assessment. This Office monitors the ongoing progress of each assessment cycle, ensuring that units are entering assessment plans, results, and actions for improvement in a timely manner. In conjunction with the university community, the Office of Academic Planning and Assessment has developed a meta-assessment process for providing qualitative feedback to units on their assessment plans. This process utilizes a rubric for evaluating the quality of a unit's assessment plan, while not impinging upon a unit's freedom to assess those objectives that are most important to them. This system serves several major purposes for SHSU: first, it provides formative feedback to units that can be used for the continuous improvement of their assessment processes; second, it provides a process of oversight of program-level assessment plans by their parent departments and colleges; and third, it provides the Office of Academic Planning and Assessment, and University leadership in general, a mechanism for monitoring the overall health and quality of institutional assessment at SHSU allowing them to take action and provide resources to areas that may need assistance with improving their assessment processes. The result of these efforts helps SHSU ensure that it is effectively monitoring the quality of its degree offerings, services, and operations, regardless of the location of their delivery.

Evaluation of the program will be based on evidence from three major constituencies: the student body, the faculty, and alumni.

The Department of Computer Science will maintain a database of students as they enter the degree program. The Department of Computer Science will monitor their progress through the program. Students are required to obtain a minimum 2.0 GPA in core curriculum courses and 2.5 GPA in the software engineering major. Students exiting from the program whether through attrition or graduation will be provided with exit evaluation from their e-portfolio allowing feedback to the evaluation process.

Faculty performance and program quality will be monitored through the university's faculty evaluation systems, with the emphasis on formative evaluation as a mechanism for continuous improvement.

The program alumni will be surveyed on a five-year cycle to provide assessment information on the quality of professional preparedness, professional employment levels and satisfaction with the curriculum. This will begin in fall 2016.

The department has existing evaluation procedures validated through the Computer Accreditation Commission of the Accreditation Board for Engineering and Technology (CAC/ABET); thus, they will be applicable to the proposed program. Once the program produces five years of assessment data, the Department of Computer Science will initiate the accreditation process through the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC/ABET) with a view to obtaining external quality assessment. ETAC/ABET requires five years of assessment data before a program can be considered for accreditation.

Academic program approval (CS 3.4.1)

The institution demonstrates that each educational program for which academic credit is awarded is approved by the faculty and the administration.

The faculty and administration at Sam Houston State University approve each educational program for which academic credit is awarded. The following process describes the development and approval process for all degree programs at SHSU, to include the Bachelor of Science in Computer Software Engineering Technology. Starting at the faculty level, ideas for new programs are proposed, evaluated and referred on to college, university, administrative, and system level committees for approval through departmental curriculum committees.

The proposal and approval process for all new programs and accompanying courses originate at the faculty level and proceed through a series of committees comprised of faculty and administrators before submission to the Provost, President, Board of Regents, and the Texas Higher Education Coordinating Board. Requests for new programs follow the guidelines created by the Texas Higher Education Coordinating Board.

Each new degree program request is submitted to the Departmental Curriculum Committee for review and approval. Each department's committee will report to the appropriate department chair. In fact, it is permissible for the department chair to serve as the committee chair. It is the responsibility of the committee to review the curriculum, to make suggestions for changes in existing curricula, and to present recommendations for new courses and degree programs. The department chair is ultimately responsible for the quality of the department's curriculum report.

If approved at this level, the proposal is subsequently forwarded to the College Curriculum Committee for review and approval. The college committee's function should be to review all requests, originating in the departments in the college's administrative area. The committee should ascertain whether the proposed requests are in harmony with the various roles and scopes of the departments in the college, as well as in congruence with the statement of mission of the college itself. It should be a concern of the committee that the requests do not in any way foster an overlapping of offerings among the departments within the college. The academic dean support the program and indicate willingness to allocate resources to support the program prior to submission to the University Curriculum Committee.

The University Curriculum Committee, comprised of faculty and administrators, is charged with reviewing the proposals to ensure there is a documented need and no unnecessary duplication. The committee is charged with reviewing for academic integrity the curriculum reports to resolve conflicts to the extent possible. This includes responsibility of carefully reviewing the curriculum submissions to determine if information provided for all requests for new programs and/or courses is complete, to analyze proposed additions and changes in course in the interest of identifying areas of possible overlap or duplication, and to work toward a resolution of potential problems before the matters come up for discussion by the Academic Affairs Council. Petitions for programs are evaluated on a basis of program demands and the qualifications of the faculty. It is expected that committee member(s) will be knowledgeable of the details of the curriculum submissions from their respective colleges in the interest of responding to most questions, which will arise in committee meetings.

Finally, all proposed changes are submitted to the Provost and the Academic Affairs Council, comprised of faculty and administrators, for endorsement before submission to the President, The Texas State University System's Board of Regents, and The Texas Higher Education Coordinating Board.

Admission policies (CS 3.4.3)

The institution publishes admissions policies consistent with its mission.

Sam Houston State University's (SHSU) mission statement states, in part, that it provides "high quality education, scholarship, and service to qualified students for the benefit of regional, state, national and international constituencies." The undergraduate admissions policies are consistent with this mission in that they promote standards that ensure scholarship and excellence. Students admitted into the dual degree program to obtain the BS in Computer Software Engineering Technology from SHSU will be subject to the same undergraduate admissions standards as students applying to traditional SHSU degrees.

Undergraduate admissions policies are published in the undergraduate catalog as well as on the Admissions website. These policies describe minimum acceptable test scores, high school class rank, high school/college GPA, and required documents for beginning freshmen, graduates of a non-accredited or non-ranking high school, graduates of a home school, early admissions students, students who earned the GED, transfer students, and international students.

Admission Requirements/Documentation for Undergraduate International Transfer Students:

- Completed Apply Texas Application with nonrefundable application fee.(must declare a major other than General Studies).
- TOEFL score of 550 paper-based, 79 (iBT internet-based test) or IELTS score of 6.5, if English is not their first language.
- Official transcripts from all colleges/universities attended documenting a 2.0 or higher GPA.
- Evaluation of all transfer work from an accredited evaluation company (World Education Services, etc.).
- Certified English translations for documents submitted in a language other than English.

Acceptance of academic credit (CS 3.4.4)

The institution publishes policies that include criteria for evaluating, awarding, and accepting credit for transfer, experiential learning, credit by examination, advanced placement, and professional certificates that is consistent with its mission and ensures that course work and learning outcomes are at the collegiate level and comparable to the institution's own degree programs. The institution assumes responsibility for the academic quality of any course work or credit recorded on the institution's transcript.

Sam Houston State University complies with the Texas Higher Education Coordinating Board Rule for accepting credit for transfer hours. General guidelines for transferring credit are found in the Undergraduate Catalog. Undergraduate Admissions reviews all academic courses attempted for transferability. Three Academic Policy Statements govern how credit is awarded at the University: Academic Credit for Work Experience, Courses and Grades Transferred from Other Colleges and Universities, and Acceptance of Foreign Language Courses. These policies conform to Section 51.968 of the Texas Education Code requiring universities to "establish the institution's conditions for granting course credit."

To establish transfer equivalency for international transfer courses, SHSU reviews the student learning outcomes for both the course to be transferred and the course at SHSU for which credit will be granted. By examining the transcript, course descriptions, and the course syllabi, SHSU is able to ensure that the learning outcomes are at the collegiate level and comparable to the institution's own course work. Final decisions on transfer equivalency rest with the department chair of the respective course discipline.

Practices for awarding credit (CS 3.4.6)

The institution employs sound and acceptable practices for determining the amount and level of credit awarded for courses, regardless of format or mode of delivery.

Sam Houston State University (SHSU) follows the policies established by The Texas Higher Education Coordinating Board (THECB), Chapter 4, Subchapter A, section 4.6, to determine the number of contact hours necessary for three hours of credit. According to these guidelines, “traditionally delivered three-semester-credit-hour courses should contain 15 weeks of instruction (45 contact hours) plus a week for final examinations so that such a course contains 45 to 48 contact hours depending on whether there is a final exam.” In its policy statement on credit hours, SACSCOC states that a credit hour “reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit.” The definition of a “credit hour” at SHSU is consistent with these THECB and SACSCOC policies. As defined by the SHSU undergraduate and graduate catalogs, a credit hour is “a unit of measure attached to academic courses, usually reflecting the number of lecture hours per week a course meets in a fall or spring semester.” Both the undergraduate and graduate catalogs also indicate the number of credit hours for each course listed in the departmental inventory. Furthermore, in the SHSU course numbering system, the second digit of the 4-digit course number indicates the credit hour value of the course.

Credit awarded for out-of-state or out-of-country coursework must, according to SHSU’s Academic Policy Statement 800107, “conform to all relevant academic policies at the institution. All courses must conform to the institution's workload and enrollment requirements, its contact hour/credit ratio, and similar matters.” All credit hours awarded either from SHSU or in transfer as part of the dual degree program with Firat University conform to the credit hour policies as stated in this section.

The following table represents the course contact hours and related transfer credit for courses taken at Firat University.

Firat University	CR	Theory Contact hours	Lab contact Hours
MAT 161 (Mathematics I)	4	60	
MAT 162 (Mathematics II)	4	60	
YMT 211 (Discrete Mathematics)	3	45	
YMT 221 (Engineering Mathematics)	3	45	
YMT 222 (Numerical Analysis)	3	45	
MAT 214 (Linear Algebra)	3	45	
YMT 111 Algorithms & Prog I)	4	45	30
YMT 112 (Algorithms and Prog II)	4	45	30
YMT 114 (Principles of Software Eng.)	3	45	
YMT 215 (Logic Circuits)	3	45	
YMT 216 (Microprocessor and Prog)	3	45	
YMT 217 (Programming Languages)	3	45	
YMT 218 (Object Oriented Prog)	3	45	
YMT 219 (Data Structures)	3	45	
FIZ 111 (Physics I)	4	45	30

FIZ 112 (Physics II)	4	45	30
TRD 109 (Turkish Language 1)	2	30	
TRD 110 (Turkish Language II)	2	30	
Total	60		

Consortial relationships/contractual agreements (CS 3.4.7)

N/A

Institutional credits for a degree (CS 3.5.2)

At least 25 percent of the credit hours required for the degree are earned through instruction offered by the institution awarding the degree.

The Sam Houston State University 2014 – 2016 Undergraduate Catalog states “The following hours must be completed “in residence” to meet degree requirements: At least 25% of the credit hours required by the degree (e.g. 30 semester credit hours for a 120 credit hour program).”

The curriculum for the dual degree in Computer Software Engineering Technology requires that 50% of the semester credit hours for the degree be completed at SHSU.

Courses transferred from Firat University to Sam Houston State University are subject to review by the appropriate department chairs, including an analysis of content and identified student outcomes. Courses are also reviewed by Sam Houston State University’s Articulation Coordinator to ensure compliance and consistency with courses transferred in from equivalent Texas institutions.

The following courses have been identified as meeting the requirements for transfer:

Firat University	CR	Sam Houston State University	CR
MAT 161 (Mathematics I)	4	MATH 1420 (Calculus I)	4
MAT 162 (Mathematics II)	4	MATH 1430 (Calculus II)	4
YMT 211 (Discrete Mathematics)	3	MATH 2395 (Discrete Mathematics)	3
YMT 221 (Engineering Mathematics)	3	MATH 3376 (Ord Diff Equations)	3
YMT 222 (Numerical Analysis)	3	MATH 3394 (Numerical Methods)	3
MAT 214 (Linear Algebra)	3	MATH 3377 (Linear algebra)	3
YMT 111 Algorithms & Prog I)	4	COSC 1436 (Programming Fundamentals 1)	4
YMT 112 (Algorithms and Prog II)	4	COSC 1437 (Programming Fundamentals II)	4
YMT 114 (Principles of Software Eng.)	3	COSC 4319 (Software Engineering)	3
YMT 215 (Logic Circuits)	3	COSC 3321 (Digital System Design)	3
YMT 216 (Microprocessor and Prog)	3	COSC 2329 (Comp Org/ Machine Lang)	3
YMT 217 (Programming Languages)	3	COSC 4318 (Programming Languages)	3
YMT 218 (Object Oriented Prog)	3	COSC 2347 (Special Topics/Programming)	3
YMT 219 (Data Structures)	3	COSC 3319 (Data Structures)	3
FIZ 111 (Physics I)	4	PHYS 1411 (Introduction to Physics I)	4
FIZ 112 (Physics II)	4	PHYS 1422 (Introduction to Physics III)	4
TRD 109 (Turkish Language 1)	2	Enblock Credit	2
TRD 110 (Turkish Language II)	2	Enblock Credit	2

Total	60	Total	60

Student records (CS 3.9.2)

The institution protects the security, confidentiality, and integrity of student records and maintains special security measures to protect and back up data.

Student educational records relating to the dual degree program with Firat University will meet the same security, confidentiality, and integrity standards as student records relating to on-campus, traditional programs.

Sam Houston State University complies with the Texas Administrative Code, Chapter 202, Subchapter B, Rule 202.20 and the Family Educational Rights and Privacy Act (FERPA) to ensure the security, confidentiality, and integrity of student records. The FERPA campus official at SHSU is the Registrar. SHSU policies supporting FERPA are outlined in the Privacy Rights documentation posted on the Registrar's website. Clearly articulated is the university's requirement for protecting student educational records:

"no one outside the institution shall have access to students' education records nor will the institution disclose any information from those records without the written consent of the student"

The University's Academic Policy 810806 is established to assure FERPA compliance and designates types, location, and custodians of various student records. Academic Policy 820830 provides guidelines for the printing of hard copy student academic records.

Additionally, the University has established the Information Security Program to provide direction for managing and protecting the confidentiality, integrity and availability of SHSU information technology resources. The framework of this plan is designed to document the controls used to meet the information security program objectives by:

- Identifying system data owners, providing the data classification standard and identifying the category of its data.
- Reviewing all authorized users and their security access for each system.
- Providing security awareness training for all employees.
- Performing the risk assessment process and developing the risk mitigation plan.
- Reviewing and updating the disaster recovery plan.
- Reviewing current policies and training program.
- Creating a security effectiveness report to the president.
- Reviewing the current process and implement changes as necessary.

Upon employment, computer accounts are created for faculty and staff. Activation of these accounts requires the user to agree to abide by the Acceptable Use Policy (IT-03). Passwords for such accounts are required to pass certain checks to ensure the strength of the password. Additionally, each new employee receives a document concerning the Family Educational Rights and Privacy Act (FERPA) which outlines their responsibilities regarding the use of information to which they may have access based on their employment. Access to administrative menu systems is controlled by individual username/password authentication. Levels of access within the administrative menus are determined by job duty and individual need and are maintained by the parties responsible for the given data. Menu access is removed as employees separate from the University.

Electronic data are stored on physically and electronically secured servers. Daily backup procedures are in place. Backup data are stored in a vault in a building separate from the servers and meet the same levels of confidentiality and integrity as the original data storage. Academic records that pre-date electronic storage are retained in a vault within the Registrar's Office.

Physical facilities (CS 3.11.3)

The institution operates and maintains physical facilities, both on and off campus, that appropriately serve the needs of the institution's educational programs, support services, and other mission-related activities.

Sam Houston State University (SHSU) is committed to providing and maintaining appropriate and adequate physical facilities by continually assessing needs, monitoring quality, and improving operations and maintenance. The university operates and maintains physical facilities, both on and off campus, that are adequate to serve the needs of the institution's educational programs, support services, and other mission-related activities.

Development and maintenance of the physical plant at SHSU is under the supervision of the Vice President for Finance and Operations. The Associate Vice President for Facilities Management manages the day-to-day operations and has administrative and strategic planning responsibility for preventative maintenance, resource management, facility alterations, new construction, and master planning.

Students enrolling in the dual degree program with Firat University will attend classes at the SHSU main campus in Huntsville, Texas. In the fall 2013, the SHSU campus contained 237 buildings encompassing more than 4,235,935 gross square feet of space. Total acreage of the university is approximately 2,558 acres, of which 400 acres are considered improved and maintainable. Of these buildings, 92 buildings, valued at \$497,513,000, are dedicated to educational and general functions. The remaining 145 auxiliary buildings are valued at \$519,749,000.

SHSU had a total of 1,229,929 assignable square feet (ASF) of educational and general space in the fall of 2013. Specific to the dual degree in Computer Software Engineering Technology, as well as all other degree programs offered within the department, the University has allocated the second floor of Academic Building I for the Computer Science Department. The space allocated for the department includes teaching space, necessary office space to house faculty members and graduate assistants, and research space for each of the programs offered.

The department manages four teaching spaces, two of which are laboratory/teaching spaces with 20 and 25 computers respectively. The department also operates a virtual machine farm that provides on- and off-campus access to students. These facilities are managed by the department but funded by the University's Information Technology (IT) department. The IT department has committed to updating and expanding the facilities on a regular basis.

The department also manages four research spaces that allow for both graduate and undergraduate research opportunities, together with an open student laboratory for general access purposes. The department has sufficient office space to accommodate existing faculty members, three FTE positions currently open, eight graduate assistants and a visiting scholar.

Substantive change (CS 3.12.1)

N/A

Program curriculum (FR 4.2)

The institution's curriculum is directly related and appropriate to the mission and goals of the institution and the diplomas, certificates, or degrees awarded.

The university's mission statement conveys that the university shall provide "high quality education, scholarship, and service to qualified students for the benefit of regional, state, national, and international constituencies." Over the years, SHSU's curriculum has expanded to serve the needs of the state, region, and the nation. The curriculum at SHSU is directly related to the mission and goals of the institution and appropriately reflects the degrees awarded. Institutional curriculum processes and periodic review of the mission ensure a continued alignment among the curriculum offered, the degrees awarded, and the institution's mission.

Section 96.61 of the Texas Statutes Education Code (TEC) identifies SHSU as "a coeducational institution of higher education." The Texas Higher Education Coordinating Board (THECB) authorizes SHSU to award baccalaureate, master's, and doctoral degrees in a variety of academic areas. Degrees at SHSU, regardless of modality, are developed in accordance with Chapter 5, Subchapter C, Section 5.45 of the Texas Administrative Code (TAC), which mandates that "The program must be within the existing role and mission of the institution as indicated by its table of programs or the Board must make the determination that the program is appropriate for the mission of the institution."

Specific to the Bachelor of Science degree in Computer Software Engineering Technology, SHSU followed its established curriculum development and review processes used for all programs, regardless of modality or student population. The university utilizes the THECB's degree program request forms for internal review and consideration of all proposed degree programs at the undergraduate, master's, and doctoral level. The degree proposals, regardless of curricular modality, require thorough descriptions of the program and its curricula, as well as documentation of student demand, market need, and institutional resources. New bachelor's degree program proposals are submitted using the THECB's "New Program Request Form for Bachelor and Master's Degrees."

Program development begins at the faculty level, is developed by the departmental faculty with subsequent review internally, with accompanying recommendations by departmental, college, and university curriculum committees; the Academic Affairs Council; the Provost; and the President. Proposals are then reviewed externally for approval or denial by The Texas State University System Board of Regents and the THECB.

Publication of policies (FR 4.3)

The institution makes available to students and the public current academic calendars, grading policies, and refund policies.

Sam Houston State University (SHSU) makes available to all students, regardless of modality, current and future academic calendars, grading policies, and refund policies. Current and projected academic calendars and current refund policies are published on the SHSU website. Grading policies are communicated to students through the academic catalogs and within course syllabi. Students admitted into the dual degree program with Firat University will have the same access to SHSU web resources, course syllabi, university policies, and student learning management systems as do students enrolled in traditional degree programs at SHSU.

Program length (FR 4.4)

Program length is appropriate for each of the institution's educational programs.

Sam Houston State University (SHSU) has developed and maintains curricula for each of its educational programs, regardless of modality, that are appropriate in length and content. All undergraduate programs at SHSU require a minimum of 120 semester credit hours (SCH) as required by the Texas Higher Education Coordinating Board (THECB) in the "Standards for Bachelor's and Master's Degree Program" and the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Comprehensive Standard 2.7.1.

All baccalaureate degree programs consist of general education requirements, as well as requirements related to specific degree, major, and minor components. The THECB has specific guidelines for general education to include length. The university, with approval by the Texas State University System and in compliance with THECB and SACSCOC standards, dictates degree (e.g., Bachelor of Arts, Bachelor of Science, etc.), major, and minor semester credit hour requirements. The degree requirements for the Bachelor of Science in Computer Software Engineering Technology conform to these requirements with 120 required semester credit hours, encompassing a 42 semester credit hour core curriculum and a 59 semester credit hour major.

Student complaints (FR 4.5)

The institution has adequate procedures for addressing written student complaints and is responsible for demonstrating that it follows those procedures when resolving student complaints.

Student complaints received from student enrolled in the dual degree program with Firat University will be addressed through the same policies and processes in place for all students at SHSU. SHSU strives to ensure all students are treated equitably and in accordance with university policies. When a student asserts that SHSU has not followed university policies or wishes to file a complaint governed by an existing SHSU policy, that student is afforded the opportunity to file a formal student complaint with the institution.

All students, regardless of modality, are afforded the opportunity to submit written student complaints via in-person delivery, hard copy mail, email, or fax. Most student complaints, grievances, or appeals are governed by specific SHSU policies that outline formal guidelines and procedures for handling specific grievances or appeals. Formal SHSU policy statements govern the vast majority of student complaints, grievances, and appeals. For student complaints relating to academic matters, the Academic Policy Manual contains formal SHSU policies relating to faculty, student, curriculum, and research matters. The following academic policy statements govern the vast majority of academic-related student complaints:

APS 900823	Academic Grievance Procedures for Students
APS 910312	Academic Probation, Suspension, and Termination
APS 810213	Procedures in Cases of Academic Dishonesty
APS 840502	Admission Standards for Undergraduate Students
APS 811006	Students with Disabilities
APS 801007	Courses and Grades Transferred From Other Colleges and Universities
APS 100428	Prerequisite Policy
APS 930226	Required Remedial Education
APS 810806	Student Educational Records

Additional details regarding SHSU student complaint procedures, policies, and records can be found at <http://www.shsu.edu/~sacs/814sac5yr/compliancereport/narratives/4.5.html>.

Recruitment materials (FR 4.6)

Recruitment materials and presentations accurately represent the institution's practices and policies.

Sam Houston State University does not publish recruitment materials for the dual degree program with Firat University. Due to the nature of the educational system in Turkey, student recruitment into specific educational institutions and programs differs significantly from that in the United States. During the final semester of high school in Turkey students take a national examination to determine their eligibility for university education. Approximately the top 45% of students in the country are offered positions in institutions across the country based on their ranking in the national examination and their aptitude for mathematics, engineering, medicine, etc. Students are then required to rank the institutions and the programs that they are interested in.

Students eligible for the dual degree program with SHSU and Firat University represent the top 10% of students taking the Turkish national examination who have also selected Firat University and the Software Engineering program as one of interest.

Distance and correspondence education (FR 4.8), if applicable

N/A

Definition of credit hours (FR 4.9)

The institution has policies and procedures for determining the credit hours awarded for courses and programs that conform to commonly accepted practices in higher education and to Commission policy.

Sam Houston State University (SHSU) follows the policies established by The Texas Higher Education Coordinating Board (THECB), Chapter 4, Subchapter A, section 4.6, to determine the number of contact hours necessary for three hours of credit. According to these guidelines, "traditionally delivered three-semester-credit-hour courses should contain 15 weeks of instruction (45 contact hours) plus a week for final examinations so that such a course contains 45 to 48 contact hours depending on whether there is a final exam." In its policy statement on credit hours, SACSCOC states that a credit hour "reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit." The definition of a "credit hour" at SHSU is consistent with these THECB and SACSCOC policies. As defined by the SHSU undergraduate and graduate catalogs, a credit hour is "a unit of measure attached to academic courses, usually reflecting the number of lecture hours per week a course meets in a fall or spring semester." Both the undergraduate and graduate catalogs also indicate the number of credit hours for each course listed in the departmental inventory. Furthermore, in the SHSU course numbering system, the second digit of the 4-digit course number indicates the credit hour value of the course.

Credit awarded for out-of-state or out-of-country coursework must, according to SHSU's Academic Policy Statement 800107, "conform to all relevant academic policies at the institution. All courses must conform to the institution's workload and enrollment requirements, its contact hour/credit ratio, and similar matters." All credit hours awarded either from SHSU or in transfer

as part of the dual degree program with Firat University conform to the credit hour policies as stated in this section.



**STANDARD AGREEMENT OF INTERINSTITUTIONAL
COOPERATION
BETWEEN
FIRAT UNIVERSITY
AND
SAM HOUSTON STATE UNIVERSITY**



This present document certifies the Standard Inter-Institutional Agreement between **Firat University**, represented by its Rector, Prof. Dr. A. Feyzi Bingöl ID TC 4428704562, with legal residence in Firat Universitesi Kampusu, Rektörlük, 23119 Elazığ/Turkey, and on the other side **Sam Houston State University** represented by its president Dr. Dana Gibson identified with ID 0262-074 with legal residence in 1831 University Avenue, Huntsville TX 77341-2088 which will be identified as SHSU.

**SECTION I
GENERAL CONDITIONS**

Article 1: Aim and Scope

The aim of this protocol is to establish the principles and conditions regarding the scope and implementation of Firat University and SHSU in various areas outlined below and which will be jointly managed and awarded by Firat University and Sam Houston State University.

Both institutions have approached this protocol with the spirit of goodwill and friendship in order to encourage common understanding, close and beneficial relationships between the members of the societies to which they belong.

The protocol will be governed within the scope of Turkish Higher Education Council's 'Regulation about the Foundation of Joint Education Programmes of Higher Education Institutions' with Sam Houston State University.

Article 2: Precedent of Parties

Sam Houston State University is a multicultural institution whose mission is to provide excellence in continuing to improve the quality of education, academic research and service to its students as well as the appropriate entities at the Regional, State and International level. The university has 06 academic Colleges and each has multiple departments. The Department of Computer Science is part of the College of Sciences and consists of one undergraduate and three graduate programs of study. The department of Computer Science offers an undergraduate program in Computing Science with emphases in Computer Science, Information Systems and digital Forensics. At the graduate level, the department offers Master of Science programs in Computer Information systems, Digital Forensics and Information Assurance and Security. The graduate programs provide for the acquisition of advanced and specialized knowledge applicable to appropriate professional practice in each area and leads to academic research and the furtherance of knowledge and praxis.

Firat University aims to provide education and training in variety of fields in order to educate individuals who fulfil their tasks successfully, who admit the superiority of mind and science, who adopt the principles of contemporary civilization, who have internationally competitive knowledge and skills, and who are responsible and gifted. The university have been conducting studies so as to interpret, improve, protect and provide the prevalence of international cultures, develop explicit and clear management

models that are responsible against their peers. The university has 12 academic Colleges and each has multiple departments. In addition, there are 8 Technical Vocational Schools of Higher Education (community colleges) and 3 Institutes. The Department of Software Engineering is a part of the College of Technology and offers an undergraduate degree. The graduated students earn the title of Software Engineer after completing their four year lasted studies successfully.

Article 3: Definitions

In this Protocol the following expressions bear the following meanings:

ABET	Accreditation Board for Engineering and Technology, Inc
ABITUR	German secondary school final examination
ACT	American College Testing
CAC	Computing Accreditation Commission (ABET)
DDAP	Dual Diploma Applicable Program
GCE	General Certificate of Education
IELTS	International English Language Testing System
MÜDEK	Association for Evaluation and Accreditation of Engineering Programs in Turkey
OSYS	Student Selection and Placement System.
SAT	Scholastic Aptitude Test
SHSU	Sam Houston State University
YGS+LYS	Higher Education Examination-Undergraduate Placement Examination
YOK	Turkish Higher Education Council
YOS	An entrance examination designed for foreign students wishing to study in Higher Education institutions in Turkey
2+2DF	Joint four-year undergraduate degree program leading to a Bachelor of Science degree in Software Engineering
2+2SE	Joint four-year undergraduate degree program leading to a Bachelor of Science degree in Digital Forensics Engineering

Article 4: Objective

The objective of this agreement is the development of joint activities between Firat University and SHSU in the area of Computer Science in general, and in Software Engineering and Digital Forensics Engineering in particular, by means of potential visits or academic exchanges of students and faculty and the development of a joint 2+2 undergraduate degree programmes leading to a Bachelor of Science in Software Engineering and/or Digital Forensics Engineering jointly awarded by Firat University and SHSU. This agreement includes cooperative activities in the areas of:

- Teaching
- Research
- Information exchange

Article 5: Obligation of Parties

5.1. SHSU is committed to:

- Support the international collaborative agreement with Firat University
- Appoint a representative officer who, jointly with the representative officer of Firat University shall be responsible for the development, implementation, assessment, and compliance of the commitment of both institutions.
- Provide access to research, teaching and social/life campus resources for students and faculty engaged in collaborative activities under the terms of this agreement.
- Provide access to research and teaching distance education resources for students and faculty engaged in collaborative activities under the terms of this agreement.
- Provide necessary technical and professional personnel for the implementation of specific agreements

5.2. Firat University is committed to:

- Support the international collaborative agreement with SHSU
- Appoint a representative officer who, jointly with the representative officer of SHSU shall be responsible for the development, implementation, assessment, and compliance of the commitment of both institutions.
- Provide access to research, teaching and social/life campus resources for students and faculty engaged in collaborative activities under the terms of this agreement.
- Provide access to research and teaching distance education resources for students and faculty engaged in collaborative activities under the terms of this agreement.
- Provide necessary technical and professional personnel for the implementation of specific agreements

Article 6: Validity

The duration of this agreement is five years (05) to start the fall semester one year following of its signature. This agreement may be renewed for equal periods with the mutual consent of its participants.

Article 7: Funding

For the achievement of the objectives of this standard Agreement the parties are committed to make the necessary efforts to obtain funding and funding relief for continuously developing research, degree programs and academic activities. Such funding efforts include but are not limited to:

- The acquisition and distribution of residence waivers for international students studying in the partner institutions
- Scholarships
- External scholarship funding
- Part time student employment
- Tuition waivers

Article 8: Modifications

The parties may agree to introduce mutually acceptable modifications and/or additional statements to this agreement through addenda as a result of periodic assessments carried out by the representative officers of both institutions during the validity of this agreement.

Article 9: Termination

This agreement may be terminated:

1. By mutual consent
2. By legal mandate
3. By failure to comply with any of the commitments made by either party
4. By reasons beyond their will to comply with their commitment, by either party, with thirty (30) days prior written communication.

Article 10: Specific Agreements

On the basis stated in this Standard Agreement both parties are authorized to sign specific agreements, addenda and other documents necessary to carry out the objectives expressed in this agreement.

Article 11: Intellectual Property

Any scientific, intellectual, or creative work recognized as intellectual property shall be subject to legal provisions in force and to the specific copyright instruments subscribed by both parties. Intellectual property recognition shall be given to the accredited individuals. The ethical rights of copyright shall belong to the author(s) in accordance with existing national and supranational provisions in force, related to the subject.

Article 12: Resolution of Dispute

Any matter not specifically provided for in this agreement and/or any discrepancy in its application and/or interpretation will seek to be resolved by direct understanding between the parties based on good faith and common intention ensuring the maximum collaboration for the settlement of disputes. Otherwise both parties shall designate an arbitral tribunal in Elazig to be subject of arbitration and solution of the matter in dispute.

SECTION II
2+2 UNDERGRADUATE DEGREE PROGRAM IN SOFTWARE ENGINEERING
2+2 UNDERGRADUATE DEGREE PROGRAM IN DIGITAL FORENSICS ENGINEERING

Article 13: Description of the Programmes

The **Bachelor of Science degree program in Software Engineering** shall be a four-year undergraduate program compatible with the duration of similar degree programs in Turkey and in the United States.

The program shall include the following components:

- General education components that meet the general education requirements for Firat University and for SHSU
- Sufficient mathematics to meet the academic needs of students engaged in advanced classes
- Sufficient natural science to foster the internalization of scientific rigor in the development of new knowledge
- A core of computer science knowledge areas sufficient for professional activity
- Specialized courses in Software Engineering to meet the needs of emerging Software Engineering professionals.

The Bachelor of Science degree program in Software Engineering shall be designed to conform to the general academic and accreditation standards of both Firat University and SHSU and, in addition, shall conform to ABET/CAC/MÜDEK accreditation standards as applicable.

The **Bachelor of Science degree program in Digital Forensics Engineering** shall be a four-year undergraduate program compatible with the duration of similar degree programs in Turkey and in the United States.

The program shall include the following components:

- General education components that meet the general education requirements for Firat University and for SHSU
- Sufficient mathematics to meet the academic needs of students engaged in advanced classes
- Sufficient natural science to foster the internalization of scientific rigor in the development of new knowledge
- A core of computer science knowledge areas sufficient for professional activity
- Specialized courses in Digital Forensics Engineering to meet the professional needs of emerging DF professionals.

The Bachelor of Science degree program in Digital Forensics Engineering shall be designed to conform to the general academic and accreditation standards of both Firat University and SHSU and, in addition, shall conform to ABET/CAC/MÜDEK accreditation standards as applicable.

Article 14: Division of responsibilities

Firat University is committed to:

- Providing general education courses appropriate to the needs of Turkish students.
- Providing mathematics and science support courses
- Providing core computer science knowledge areas.

SHSU is committed to:

- Providing general education courses
- Providing mathematics and science support courses
- Providing core computer science knowledge areas.
- Providing Digital Forensics Engineering coursework
- Providing advanced Software Engineering coursework.

Section III

STUDENT ADMISSION

Article 15: Determining the Quota

The quota for students who are Turkish citizens and who are not Turkish citizens will be determined by Firat University and declared to YOK and SHSU.

Article 16: Admission of Students who are Turkish citizens

The placement and admission of the Turkish citizens' students to the 2+2DF program will be made in accordance with the results of YGS+LYS administered by OSYS in Turkey and with the regulations and requirements to which Firat University is subject.

Firat University will follow up the procedures that are required by YOK for placing the programme in YGS+LYS guidebook published by OSYS.

Article 17: Admission of Students who are not Turkish

The examination and diplomas that can be acceptable in admission of students who are not Turkish citizens to SHSU are indicated below. The approval of Turkish Higher Educational Council is also needed regarding the minimum levels of these examinations and diplomas.

Name of the Examination/Diploma Level	Score*
YOS (Basic Learning Skills Test in Foreign Student Examination administered by OSYS in the last two years)	Minimum 40 points
SAT	At least 1000 points in total or
ACT	At least 21 points or
GCE A level Certificate	At least 2 courses
ABITUR	At least 4 points or
Mature Certificate	-
French Baccalaureate	The high school graduation grade should be at least 12

*Rules are determined by Turkish Higher Education Council (YOK) for student transfers from abroad

Article 18: Student Transfer

Students will transfer at the end of a successful completion of year two from Firat University to SHSU. The minimum number for progression to the 2nd year is 20. If the number of the student to be transferred is fewer than 20, both institutions will try to come to an appropriate resolution that will be for the benefit of the students.

It is possible for a student to transfer from SHSU to other equivalent programmes in Turkey provided that his or her YGS+LYS score is not lower than the base score of the programme that he or she would like to transfer to in that year and that he or she meets the other requirements envisaged in the regulations.

It may be possible for a student to transfer from the SHSU programme that he or she is registered in to another one at Firat University. Terms and conditions for transfer are determined by Firat University. It may be possible for a student to undertake the third and fourth year of study at a different US institution. This is only possible with the written approval of both SHSU and the transferring US institution. This transfer is possible only if the university or college approves it and if it meets the requirements under regulations on transfers within undergraduate programmes in the United States or by specific articulation agreements between SHSU and the transferring US institution.

Section III

EDUCATION

Article 19: Medium of Instruction and Foreign Language Requirement

The medium of instruction of SHSU is English. In order for the students to start taking courses in the third and fourth years of the 2+2SE or 2+2DF programmes, they should demonstrate their English proficiency. IELTS, TOEFL and Firat University English Proficiency examinations are required for English proficiency. Examinations other than these are not valid for English Proficiency Exam.

Score of 5.5 or equivalent for IELTS and Firat University English Proficiency examination scores are needed to start education in DDAP associate programme courses.

Students who have registered in the 2+2SE or 2+2DF programmes and obtained satisfactory score in the examinations stated above and who want to be exempt from English preparatory class must submit their certificates valid for the courses beginning in the academic year in which they plan to start the third year of the 2+2SE or 2+2DF programmes to Firat University Registrar's Office and Firat University Office of International Affairs.

Students unable to obtain a satisfactory score in English Proficiency Examinations are required to register in English preparatory class at Firat University and are placed in a class appropriate for their levels. Students in preparatory class have compulsory attendance in accordance with Firat University regulations. Students are given a maximum 2 years for English preparatory education. Students who cannot be successful in the maximum period allowed by regulations may be placed by OSYS according to their YGS+LYS scores in programmes in Turkey with Turkish as a medium of instruction.

Article 20: Curriculum

The curriculum for the 2+2SE and 2+2DF programmes is specified in Appendix 1 (Firat University) and Appendices 2 and 3 (SHSU).

Article 21: Academic Regulations

A student whose registration is cancelled in Firat University or SHSU as a result of being academically unsuccessful, or due to any other reason, will also be expelled from the 2+2SE or 2+2DF programmes and institutions/ establishments in question.

At the end of each semester both institutions will provide documentation that indicates the academic and administrative conditions of the students. Firat University and SHSU will maintain open and regular communication with each other through the representative officers concerning the student performance.

Students who fulfil the requirements of both institutions and earn the right to graduate are awarded separate Bachelor of Science diplomas by both Firat University and SHSU for the programme in question. The expressions in Appendix 3/A and Appendix 3/B will be inscribed on the diplomas conferred by two institutions.

Award of the diplomas are subject to the students meeting the academic requirements of both institutions.

Students enrolled in the 2+2SE or 2+2DF programmes shall conform to the academic regulations of Firat University during the first two years of the program and the academic regulations of SHSU in the third and fourth years. Resolution of discrepancies in academic regulations shall be through the processes identified in article 12.

SECTION IV
OTHER PROVISIONS
FIRAT UNIVERSITY

Tuition Fees

Article 22

Students who are registered in the 2+2SE or 2+2DF programmes pay the tuition and fees determined by the Board of Trustees of Firat University during their studies at the Firat University. Students who are registered in the 2+2SE or 2+2DF programmes pay the tuition and fees determined by the Texas State University System during their studies at SHSU. The tuition fee for English preparatory class is determined by Firat University. The fees are submitted to YOK by Firat University in order to be placed in YGS+LYS guidebook. The cost of living of the students at SHSU is not included in the tuition fee.

Scholarships

Article 23

SHSU, in accordance with its policies and procedures, may allocate a quota for students on scholarships in the 2+2SE or 2+2DF programmes during their residency at SHSU and also award full or partial scholarships to students based on their success. The conditions for awarding and continuation of these scholarships are determined by SHSU.

Exceptional Leave of Absence

Article 24

Due to imperative reasons and by providing appropriate documentation, a student may be given a leave for one semester or one academic year with the mutual agreement of both institutions. The duration of the leave is not counted towards the maximum education period. The total duration of leave used during education period cannot exceed the half of normal education period.

Discipline Provisions

Article 25

Students are subject to the discipline regulations of the institution that they are enrolled in.

Visa Procedures

Article 26

The programme coordinators of both institutions will provide advice and support for students in visa applications.

The financial assurance documents that the students need to present in order to get a visa are gathered by Firat University and submitted to SHSU. SHSU in return sends a sponsorship letter to the Turkish Institution for each student. Regulations for SHSU student admission are determined by Sam Houston State University.

Renewal, Amendments and Termination of the Protocol

Article 27

After this Protocol is approved by the authorised institutions, it will be valid for a period of 5 years as of the final date of signing. The protocol may be renewed if necessary. This partnership may be

APPENDICES:

- | | |
|-------------------|--|
| Appendix 1 | The curriculum for Bachelor of Science Degree in Software Engineering and Bachelor of Science Degree in Digital Forensics Engineering - first two years (Firat University) |
| Appendix 2 | The curriculum for Bachelor of Science Degree in Software Engineering- final two years (SHSU) |
| Appendix 3 | The curriculum for Bachelor of Science Degree in Digital Forensics Engineering- final two years (SHSU) |
| Appendix 4 | Firat University diploma samples |
| Appendix 5 | SHSU diploma samples |

Appendix 1

The curriculum for Bachelor of Science Degree in Software Engineering and Bachelor of Science Degree in Digital Forensics Engineering - first two years (Firat University)

SOFTWARE ENGINEERING

COURSE SCHEDULE

FIRST YEAR (First University)										
First Semester						Second Semester				
Code	Course Name	T	P	C	AKTS	Code	Course Name	T	P	AKTS
TRD109	Turkish Language I	2	0	2	2	TRD110	Turkish Language II	2	0	2
YDI107	English I	2	0	2	3	YDI108	English II	2	0	3
FIZ111	Physics I	2	2	3	4	FIZ112	Physics II	2	2	4
MAT161	Mathematics I	4	0	4	5	MAT162	Mathematics II	4	0	5
YMT111	Algorithm and Programming I	3	2	4	8	YMT112	Algorithm and Programming II	3	2	8
YMT113	Introduction to Computer Science	3	2	4	8	YMT114	Principles of Software Engineering	3	2	8
	Total Credit	16	6	19	30		Total Credit	16	6	30

SECOND YEAR (Firat university)										
Third Semester						Fourth Semester				
Code	Course Name	T	P	C	AKTS	Code	Course Name	T	P	AKTS
AIT209	Ataturk's Principles and the Historical Revolution I	2	0	2	2	AIT210	Ataturk's Principles and the Historical Revolution II	2	0	2
YMT211	Discrete Structures I	2	2	3	6	YMT212	Discrete Structures II	2	2	6
YMT213	Vocational English I	2	0	2	3	YMT214	Vocational English II	2	0	3
YMT215	Logic Circuits	3	2	4	6	YMT216	Microprocessors and Programming	3	2	6
YMT217	Programming Languages	3	2	4	7	YMT218	Statistics and Probability	3	2	7
YMT219	Data Structures	3	0	3	6	YMT220	Economy	2	0	6
	Total Credit	15	6	18	30		Total Credit	14	6	30

Course Contents

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
TRD109	Turkish Language I	2	0	2	2

Course Contents

Definition of the language, The place and importance of language as a social institution in life, Place of Turkish language among world languages, The development of the Turkish language and the historical periods, current situation of Turkish language and spread areas, Vowels in Turkish and classification of Turkish audio features and sound knowledge about the rules, knowledge of syllables, spelling rules and practice, punctuation marks...

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YDI107	English I	2	0	2	3

Course Contents

Simple Present Tense, Articles, Numbers, Present Progressive Tense, Possessive Adjectives, can, Singular and Plurals, How Many, How Much, Some, Any, A Little, A Few, Some Prepositions.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
FIZ111	Physics I	2	2	3	4

Course Contents

Vectors, balance, moment of a force, linear motion, Newton's second law, plane motion, work and energy impulse and momentum, rotational motion, elasticity, harmonic motion.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
MAT161	Mathematics I	4	0	4	5

Course Contents

Real and complex numbers, sentences, permutation, calculations of inversion and combination, probability, group, ring, vector spaces, length, angle and projection calculations, matrices and determinants, linear equation systems.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT111	Algorithm and Programming I	3	2	4	8

Course Contents

Problem solving. Input-Output process. Algorithm design. Algorithms certainty, finitude, efficiency, input-output. Constants, variables and expressions. Arithmetic, relational and logical processors. Input-output statements. Condition and Repetition. Vector and matrix representations. Character information operations. Subroutine and function routines. Recursion. Structural applications of a programming language.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT113	Introduction to Computer Science	3	2	3	8

Course Contents

Detailed examination of the coding phase of the software development life cycle. The design of program logic. Programming languages. Introduction to Object-oriented methods. Database management systems. Computer networks and communication. Internet and World Wide Web. Programming technologies for the Web. Computers and security. Computers and social issues.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
TDE	Turkish Language II	2	0	2	2

Course Contents

Turkish affixes and their applications, general information about the composition, essay writing and implementation of the plan, adjectives and verbs, composition, expression and its application, use of adverbs in Turkish.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YDI108	English II	2	0	2	3

Course Contents

Simple Past Tense, Auxiliary Verbs (Be, Do), Must, Have to, Has to, Going to Form, Adverbs of Time, Regular and Irregular Verbs, Possessive Pronouns

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
FIZ112	Physics II	2	2	3	4

Course Contents					
Electricity, electrostatics, Coulomb's law, electric field, potential, capacitance, properties of dielectric, electrokinetic, current, and resistance to direct current circuits, alternating currents					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
MAT162	Mathematics II	4	0	4	5

Course Contents					
Definition and types of functions, the absolute value functions, the full value functions, trigonometric functions, signal functions and their graphs, exponential and logarithmic functions and applications, sequences, continuity and limit, derivative, differential, and about the account applications, integration.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT112	Algorithm and Programming II	3	2	4	8

Course Contents					
Introduction to Object Oriented Programming and proper presentation of a programming environment. The basic language concepts (expressions, data types, variables, control structures, arrays, ...). Divide and Resolve Method. Modular software development (methods and classes). Class Variables and Local Variables. Form Elements. Event Driven Programming. Dynamic Arrays. Linked Lists. Search and Ranking Algorithms. Files. Selecting the appropriate structures algorithms. Development of effective algorithms.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT114	Principles of Software Engineering	3	2	4	8

Course Contents					
The scope of software engineering. Software development life cycle models. Software process. Software teams. Software tools. Software testing. Modules and objects. Re-usability and portability. Planning, cost and time estimation. Requirements. Classical analysis. Object-oriented analysis and design. Design types and object-sided design. Implementation and Integration. Maintenance of software product after delivery.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
AIT209	Ataturk's Principles and the Historical Revolution I	2	0	2	2

Course Contents					
The course covers the collapse of the Ottoman Empire and the causes of Turkish revolution, the disintegration of the Ottoman Empire, Armistice cease-fire agreement and subsequent events, situation of the country in occupation and response of Mustafa Kemal, M. Kemal to Samsun, and the opening of the last Ottoman Deputies Assembly, the opening of Parliament and get into the hands of the management of the liberation war.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT211	Discrete Structures I	2	2	3	6

Course Contents					
Fundamentals of discrete mathematics. Functions. Relations. Sets and simple proof techniques. Boolean algebra. Propositional logic. Digital logic. Elementary number theory. Counting the foundations of the concept.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT213	Vocational English I	2	0	2	3

Course Contents					
English equivalents of the main parts of the computer, the computer equivalents of English abbreviations and definitions used in the field, operating systems' English descriptions, classifications and definitions of microprocessors, network structures, cause-effect structures, adjective and noun clauses, conjunctions, passive sentences, causative sentences when used in academic publications, sentence structures, academic terms. Articles translate translation of parts of professional books, translation of user manuals.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT215	Logic Circuits I	3	2	4	6

Course Contents					
Digital Systems, Combinational Logic, Sequential Logic, register, and counters					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT217	Programming Languages	3	2	4	7

Course Contents					
Fundamental concepts in programming languages and basic programming paradigms, Pascal, C, C++ and Java programming					

languages and its variety of structures.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT219	Data Structures	3	0	3	6
Course Contents					
Introduction to Data Structures. Introduction to the Java programming language. Recursion. Stacks, Queues and Lists. Trees. Binary Trees and Balanced Trees. Operations on Trees. Comparison of Algorithms. Time and Location complexity. Sorting and Searching. Graph.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
AIT210	Ataturk's Principles and the Historical Revolution II	2	0	2	2
Course Contents					
Abolition of the Caliphate, Progressive Republican Party and Takrir-i-Sukun period, Education Revolution, the Cultural Revolution, the letter revolution, revolution of Turkish history, Turkish language revolution, economic congress in Izmir, pass a multi-party life, women's rights revolution, hat, costume and dress reform, foreign policy of the Republic of Turkey, Ataturk's principles, political events, government and parliament relations between the Istanbul government, military developments, the Treaty of Kars, Ankara Agreement, Offensive, Mudanya truce, the removal of the Ottoman reign, the Lausanne peace treaty.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT212	Discrete Structures II	2	2	3	6
Course Contents					
Proposition Logic and Set Theory. Functions of Mathematical Methods and Algorithms of proof. Number Theory and Sequences. Induction and Recursion. Counting. Discrete Probability. Relations. Boolean Algebra. Graph Theory. Trees.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
YMT214	Additional English II	2	0	2	2
Course Contents					
Microcomputers, microcomputer processors, memory and input / output units, microprocessor programming.					
YMT218	Statistics and Probability	3	2	4	7
Course Contents					
Variable definition, data types, numeric and graphic presentation techniques, population and sample, point and interval forecasting, hypothesis testing.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
IKT	Economy	2	0	2	6
Course Contents					
What is science? Economy and its problems, purpose of the production unit, production factors 'period' concept, the production function and the co-product curves, returns to scale, the law of diminishing productivity, decision-making related to long-term, short term and long-term costs, production unit, revenue, profit maximization and production unit, the principle of balance, presentation, production unit, the curve shift, presentation flexibility, and purpose of the consumer unit, consumer unit balance, the concept of money, the co-benefit curves, budget line, the consumer behavior explained with the help of co-benefit curves and budget line, the consumer unit, the request function of the curve of the total request, the request elasticity, price formation and markets, perfect competitive markets, monopoly markets, imperfectly competitive markets, markets of production factors.					

Appendix 2
The curriculum for Bachelor of Science Degree in Software Engineering- final two years (SHSU)

THIRD YEAR (SHSU)											
Fifth Semester						Sixth Semester					
Code	Course Name	T	P	C	AKTS	Code	Course Name	T	P	C	AKTS
COSC 3327	Computer Architecture			3		COSC 3312	Numerical Methods			3	
COSC 3318	Databasc Management Systems			3		COSC 4327	Operating Systems			3	
COSC 3331	Human Computer Interaction			3		COSC 4330	Computer Graphics			3	
COSC 2327	Networks I			3		COSC 4340	Data Mining			3	
	Total Credit			12			Total Credit			12	

FOURTH YEAR (SHSU)											
Seventh Semester						Eighth semester					
Code	Course Name	T	P	C	AKTS	Code	Course Name	T	P	C	AKTS
COSC 4320	Simulation			3		COSC 4318	Advanced Language Concepts			3	
COSC xxxx	COSC Elective I			3		COSC xxxx	COSC Elective II			3	
COSC 4326	Network Theory			3		DFSC 4349	Professionalism and Ethics			3	
COSC 4319	Software Engineering			3		COSC 4340	Capstone Project			6	
POL %xxx	International Affairs			3							
	Total Credit			15			Total Credit			15	
SOFTWARE ENGINEERING ELECTIVES											
COSC 3318	Information Systems Design And Mgt.			3		CSTF 3330	Web Technologies			3	
COSC 3321	Switching Theory			3		DFSC 3317	Cryptography			3	
COSC 4316	Language Translators			3		COSC 4340	Digital Signal Processing			3	

COURSE DESCRIPTIONS

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
CTE 3330	Web Technologies	3		3	
Course Contents					
This course explores the concepts and techniques associated with the development of modern dynamic Web sites. Topics covered include web design fundamentals, modern web development tools, style sheets, markup languages, accessibility, session management, interactive communication and security. The course also examines a number of Web 2.0 technologies that support blog, wiki and social networking applications.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 2327	Networks I	3		3	
Course Contents					
Installation, usage, and management of computer hardware and operating systems for business. Topics include scripting, macros, intelligent agents. Installation and management of networks, the Internet, and communications software is covered.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 2347	Special Topics: Programming	3		3	
Course Contents					
In-depth study of a programming language used to implement information systems. Real time components, visual techniques, and artificial intelligence will be utilized as appropriate. This course may be repeated for credit with the approval of the undergraduate advisor. A different language must be covered to receive approval for repeat credit					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3327	Computer Architecture	3		3	
Course Contents					
computer systems organization and systems programming. Uni- and multi-processor, SMP, parallel and distributed systems are studied.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3318	Database Management Systems	3		3	
Course Contents					
This course emphasizes the design of information systems using database software and query language/programming interfaces. Data warehouse concepts are introduced. Legacy systems, LAN and distributed systems based systems are used to give the student hands-on experience in systems development.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3337	Information Systems Design and Management	3		3	
Course Contents					
The design and implementation of large-scale file and persistent object-based information systems. Client/server systems are covered.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3331	Human Computer Interaction	3		3	
Course Contents					
This course presents a comprehensive introduction to the principles and techniques of human-computer interaction. The course examines the event-driven model through the development of applications utilizing graphical design environments and the use of rapid application prototyping to explore a variety of techniques for HCI, particularly in relation to mobile and other non-traditional devices.					

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3312	Numerical Methods	3		3	

Course Contents					
This course develops the concepts underlying the use of the computer for interpolation, approximations, solutions of equations and the solution of both linear and nonlinear systems equations. Mathematical software and/or user written programs are utilized.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3321	Switching Theory	3		3	
Course Contents					
Boolean Algebra and graph theory with emphasis on their applications in the design of digital computer software and hardware. Logic systems are designed and analyzed.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4316	Language Translators	3		3	
Course Contents					
The design and implementation of assemblers, interpreters and compilers. Topics include symbol tables, lexical scanning, syntactic analysis, object code generation and storage allocation.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4327	Computer Operating Systems	3		3	
Course Contents					
This course is concerned with software organization of computer systems. It is intended to bring together the concepts and techniques of programming languages, data structures and computer organization by considering their role in the design of general computer systems. The problems which arise in multi-accessing, multiprogramming, and multiprocessing are emphasized.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4319	Software Engineering	3		3	
Course Contents					
This course is an introduction to formal methods of specifying, designing, implementing and testing software for large programming projects. Methods of estimating and predicting reliability are discussed.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4330	Computer Graphics	3		3	
Course Contents					
This course introduces graphical API's used in developing graphical user interfaces and multimedia applications. Topics covered are selected from the PHIGS, Windows, Presentation Manager, X-Windows, digital video and other appropriate technologies					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4326	Network Theory	3		3	
Course Contents					
This course covers the architecture and protocols of local and wide area networks. Peer to peer and client/server configurations based upon Unix and Windows 2003/8 servers and clients are discussed. Assignments involve the setup configuration and management of Unix and Windows NT LAN servers and the implementation of interprocess communication mechanisms.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4320	Simulation	3		3	
Course Contents					
This is an introduction to simulation methodology applicable to all disciplines. It covers the design of simulation experiments, validation of models and their computer implementation. The use of a generalized simulation language is introduced and applied in class projects					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4318	Advanced Programming concepts	3		3	
Course Contents					

This course emphasizes programming languages which support the Object-Oriented Programming (OOP) paradigm. Programming assignments are used to illustrate the features and weaknesses of the language and to develop the student's proficiency in the use of OOP technology.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 4349	Professional Ethics	3		3	

Course Contents

This course examines the nature, need and value of well-formed ethical constructs within the digital forensics profession. Included in this course is a discussion, through case studies, of the nature of professionalism, personal and professional codes of ethics and conduct, and the professional handling of ethical and moral conflict. The course also explores the role of the professional in public policy and the awareness of consequences of ethical dissent and whistle blowing.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4340	Special Topics	3		3	

Course Contents

Topics of general interest are offered on a timely basis. Previous topics include Cognitive Computing, Embedded Linux Systems, Visual Graphics/Component Systems, Digital Signal Processing, Cyber warfare, Malware, and Data mining

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
HIST 1301	United States History to 1876	3		3	

Course Contents

The colonial origins of the United States and growth of the Republic to 1876

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
HIST 1302	United States History since 1876	3		3	

Course Contents

Continuing survey of the United States to the present.

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
POLS 2301	Principles of American Government — National and State.	3		3	

Course Contents

This course deals with the origin, development, and Constitution of the American governmental system, citizenship and civil rights, suffrage, the national party system, the national executive, organization of congress, national judiciary, federal-state relations, and the Constitution of the State of Texas. This course meets the legislative requirement for a course on the Constitutions of the United States and Texas.

Appendix 3

The curriculum for Bachelor of Science Degree in Digital Forensics Engineering- final two years (SHSU)

DIGITAL FORENSICS ENGINEERING

THIRD YEAR (SHSU)											
Fifth Semester						Sixth Semester					
Code	Course Name	T	P	C	AKTS	Code	Course Name	T	P	C	AKTS
DFSC 1317	Introduction to Digital Forensics			3		DFSC 2320	Hardware Forensics			3	
COSC 2347	Special Topics Programming "C"			3		DFSC2317	Network Security			3	
COSC 3318	Database Management Systems			3		COSC 4318	Advanced Language Concepts			3	
COSC 2327	Networks I			3		COSC3312	Numerical Methods			3	
POLS 2301	Principlos of American Government --- National and State			3		DFSC 4340	Malware			3	
	Total Credit			15			Total Credit			15	

FOURTH YEAR (SHSU)											
Seventh Semester						Eighth semester					
Code	Course Name	T	P	C	AKTS	Code	Course Name	T	P	C	AKTS
COSC 4319	Software Engineering			3		DFSC 4317	Information Security			3	
DFSC 3320	Digital Forensics Tools			3		DFSC 5318	Cyber Law			3	
DFSC 3317	Cryptography			3		DFSC 4349	Professionalism and Ethics			3	
DFSC 4340	Cyber Warfare			3		HIST 1302	United States History since 1876			3	
HIST 1301	United States History to 1876			3		DFSC 4340	Capstone Project			6	
POL 1000	International Affairs			3							
	Total Credit			18			Total Credit			18	

COURSE DESCRIPTIONS

Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 1317	Introduction to Digital Forensics and Information Assurance	3		3	
Course Contents					
This course introduces students to the fundamentals of digital forensics technology. Emphasis is placed on identifying threats to, and vulnerabilities of, computer systems and how to minimize them. Students will learn how hackers identify victims, how attacks are executed, and various methods used to access to computer systems					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 2320	Hardware Forensics	3		3	
Course Contents					
Techniques in the duplication, recovery and restoration of digital evidence. Includes hard disks, floppy drives, CD formats, DVD formats, zip drives, mobile phones, PDA's smart cards, memory technologies, and other devices capable of storing digital information.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 2317	Network Security	3		3	
Course Contents					
The rationale and necessity for securing computer systems and data networks, as well as methodologies for the design of security systems, establishing security protocols and the identification of best practices in the administration, testing and response protocols for secure communications systems.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 3320	Digital Forensics Tools	3		3	
Course Contents					
This course explores tools for the recovery of information on protected or damaged hardware for the purpose of providing evidence of misuse or abuse of systems. Topics also include the chain of evidence, protocols for data recovery, cryptographic analysis, password recovery, the bypassing of specific target operating systems, and obtaining data from digital devices that have been damaged or destroyed.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 3317	Cryptography	3		3	
Course Contents					
This course will describe the basic principles of cryptography and how it is used in modern computer and communication systems. It will cover single ciphers, modern ciphers, public-key cryptography, key management, cryptanalysis and steganography. Students will learn how cryptography is used for message secrecy, integrity, authentication and digital signatures. Application areas to be discussed include e-mail, files, network communication, and electronic payments					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
DFSC 4317	Information Security	3		3	
Course Contents					
This course provides an introduction to basic security needs. The course will include, but not be limited to individuals vs. government privacy issues, federal encryption standards, the different layers of security currently available, the practical application of user level and system level cryptography, and strategies for evaluation and selection of security methods.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 2347	Special Topics: Programming	3		3	
Course Contents					
In-depth study of a programming language used to implement information systems. Real time components, visual techniques, and artificial intelligence will be utilized as appropriate. This course may be repeated for credit with the approval of the undergraduate advisor. A different language must be covered to receive approval for repeat credit					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3318	Database Management Systems	3		3	
Course Contents					

This course emphasizes the design of information systems using database software and query language/programming interfaces. Data warehouse concepts are introduced. Legacy systems, LAN and distributed systems based systems are used to give the student hands-on experience in systems development.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 2327	Networks I	3		3	
Course Contents					
Installation, usage, and management of computer hardware and operating systems for business. Topics include scripting, macros, intelligent agents. Installation and management of networks, the Internet, and communications software is covered.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4318	Advanced Programming concepts	3		3	
Course Contents					
This course emphasizes programming languages which support the Object-Oriented Programming (OOP) paradigm. Programming assignments are used to illustrate the features and weaknesses of the language and to develop the student's proficiency in the use of OOP technology.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 3312	Numerical Methods	3		3	
Course Contents					
This course develops the concepts underlying the use of the computer for interpolation, approximations, solutions of equations and the solution of both linear and nonlinear systems equations. Mathematical software and/or user written programs are utilized.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
COSC 4319	Software Engineering	3		3	
Course Contents					
This course is an introduction to formal methods of specifying, designing, implementing and testing software for large programming projects. Methods of estimating and predicting reliability are discussed.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
HIST 1301	United States History to 1876	3		3	
Course Contents					
The colonial origins of the United States and growth of the Republic to 1876					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
HIST 1302	United States History since 1876	3		3	
Course Contents					
Continuing survey of the United States to the present.					
Code	NAME	THEORETICAL	PRACTICE	CREDIT	AKTS CREDIT
POIS 2301	Principles of American Government — National and State.	3		3	
Course Contents					
This course deals with the origin, development, and Constitution of the American governmental system, citizenship and civil rights, suffrage, the national party system, the national executive, organization of congress, national judiciary, federal-state relations, and the Constitution of the State of Texas. This course meets the legislative requirement for a course on the Constitutions of the United States and Texas.					

Appendix 4

Firat University Diploma Sample

**Who has satisfactorily pursued the Studies and passed the Examinations required by the end of the
program conducted with Firat University therefore has been awarded the**

Bachelor of Science degree

in

SOFTWARE ENGINEERING
.....

at the Firat University

With all the Rights and Privileges

Thereunto appertaining.

18 June 2011

.....

**Prof. Dr.....
Dean**

**Prof. Dr.
Rector**

Appendix 5
Sam Houston State University Diploma Sample

SAM HOUSTON STATE UNIVERSITY

HUNTSVILLE, TEXAS

Be it know that

Name of Person

having successfully completed the Course of Study as prescribed by the Faculty and Board of Regents
and having complied with all other requirements of the University, has been declared a

Bachelor of Science
in Software Engineering

and is entitled to all rights and privileges appertaining to that degree. In testimony whereof, the
Board of Regents, upon recommendation of the Faculty, has granted this
Diploma, bearing the seal of the University.

Dated this _____ day of _____, Two Thousand Eleven

Chairman of Board of Regents

President of University

terminated provided that it is declared one year before the termination and that after all the students enrolled in the programme complete their course requirements and get their dual diploma.

On behalf of
SAM HOUSTON STATE UNIVERSITY

On behalf of
FIRAT UNIVERSITY

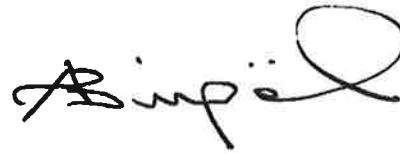


Signature

Name : Dr. Jerry Cook

Title : Vice President for Research
and Special Programs

Date : May 18, 2011



Signature

Name : Prof. Dr. A. Feyzi Bingöl

Title : Rector

Date : May 18, 2011