This addendum contains approved changes to the 2016-2017 Parker University Academic Catalog. The purpose of this addendum is to provide additional information about new programs and courses that occurred after publication of the 2016-2017 Parker University Academic Catalog. The amendments listed in this document take precedence over information contained in the 2016-2017 Parker University Academic Catalog and are effective as of the date of this publication.
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**Bachelor of Science Degree with a Major in Computer Information Systems**

**Mission**
The mission of the Bachelor of Science with a Major in Computer Information Systems is to provide a thorough, well-rounded education in computer and information sciences that prepares graduates to serve as leaders in their field and their community.

**General Program Information**
The Bachelor of Science in Computer Information Systems program helps you understand the methods, principles, and tools crucial to advance in today’s information technology and cybersecurity landscapes. Required courses include a broad range of subjects such as software design, security, networking, communications, business, and mathematics. The program allows you to choose between three areas of concentration: Information Technology, Cybersecurity, and Health Care Cybersecurity.

**Program Learning Outcomes**
The graduating student will be able to:

1. Exhibit the ethical leadership standards, technical knowledge, and critical thinking skills required of their profession in effective oral and written communications.
2. Demonstrate proficiency in the following areas: object-oriented programming; event-driven, database-enabled applications with graphical user interfaces (including conceptual design); elegant and efficient coding; complete testing/debugging; and meaningful documentation.
3. Demonstrate understanding of database concepts and proficiency in developing effective data models, designing and implementing relational databases, and manipulating data using SQL.
4. Demonstrate an understanding of the technical fundamentals of telecommunications and computing networks, with reinforced knowledge of the layered network communications model, through hands-on laboratory experiences.
5. Demonstrate an understanding of the integration of information systems within the enterprise by analyzing, diagramming, and evaluating the information systems processes of integrated business units. Emphasis will be placed on the functional models, physical architectures, and security controls of an organization.

**Length of Program**
The degree program may be completed in a minimum of 10 terms of instruction and with a maximum satisfactory time frame for completion of 15 terms. The curriculum includes: 45 semester credit Hours of General Education courses, 57 semester credit Hours of Computer Information Systems core courses, and 18 semester credit Hours of course work in your chosen concentration of either Information Technology, Cybersecurity, or Health Care Cybersecurity, or all three with an Internship/Industrial Experience Program in IT related organizations.
Mode of Instruction
The Bachelor of Science with a major in Computer Information Systems program will be offered through a variety of instructional formats (i.e., campus-based, distance education and hybrid instructional formats).

Technical Standards
Credits and degrees earned from this institution do not automatically qualify the holder to participate in professional certification or licensure exams. Different IT certification examinations or tests are at the discretion of the student. Parker University does not guarantee graduates will successfully pass such exams.

Note: The Cybersecurity Concentration track includes material that is covered by the Systems Security Certified Practitioner (SSCP®) exam. Detailed information on qualifications for the SSCP exam is available at www.isc2.org/sscp.

Degree Requirements
The Bachelor of Science with a Major in Computer Information Systems requires a minimum of 120 semester credit Hours of coursework which are as follows:

- 45 Credit Hours in General Education courses.
- 57 Credit Hours in BS-CIS Major core courses.
- 18 Credit Hours in courses from the student’s major concentration (i.e., in either Information Technology, Cybersecurity, or Health Care Cybersecurity or all three).

The Bachelor of Science in Computer Information Systems program must be completed within 15 terms.

Graduation Requirements
To earn a Bachelor of Science with a Major in Computer Information Systems from Parker University, students must accomplish the following:

- Complete the designated program of study.
- Complete degree requirements with a cumulative grade point average of 2.0 or higher on a 4.0 scale.
- File an application for the degree with the Office of the Registrar on or before the published date during the last term of resident study. The degree will not be awarded unless the application is completed.
- Resolve all financial obligations to Parker University.
- Complete all required exit paperwork.

Students cannot be on academic probation or subject to disciplinary sanctions at the time of graduation.

Curriculum
## GENERAL EDUCATION CORE COURSES

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Cr.</th>
<th>Course name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 2301</td>
<td>3</td>
<td>General Psychology</td>
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<tr>
<td>ENGL 1301</td>
<td>3</td>
<td>English Composition I</td>
</tr>
<tr>
<td>ENGL 1302</td>
<td>3</td>
<td>English Composition II</td>
</tr>
<tr>
<td>ENGL 2326</td>
<td>3</td>
<td>American Literature</td>
</tr>
<tr>
<td>SPCH 1311</td>
<td>3</td>
<td>Speech Communications</td>
</tr>
<tr>
<td>BIOL 1308</td>
<td>3</td>
<td>Biology for Non-Science Majors I</td>
</tr>
<tr>
<td>BIOL 1309</td>
<td>3</td>
<td>Biology for Non-Science Majors II</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>3</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MATH 2342</td>
<td>3</td>
<td>Elementary Statistical Methods</td>
</tr>
<tr>
<td>MATH 2305</td>
<td>3</td>
<td>Discrete Mathematical Methods</td>
</tr>
<tr>
<td>MUSI 1306</td>
<td>3</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>HIST 1301</td>
<td>3</td>
<td>American History I</td>
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<tr>
<td>HIST 1302</td>
<td>3</td>
<td>American History II</td>
</tr>
<tr>
<td>GOVT 2305</td>
<td>3</td>
<td>Federal Government</td>
</tr>
<tr>
<td>GOVT 2306</td>
<td>3</td>
<td>Texas Constitution</td>
</tr>
</tbody>
</table>

*General Education Courses* 45 Semester Credit Hours

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## CIS CORE COURSES

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Cr.</th>
<th>Course name</th>
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</thead>
<tbody>
<tr>
<td>BCIS 1301</td>
<td>3</td>
<td>Fundamentals of Computer Information Systems</td>
</tr>
<tr>
<td>BCIS 1302</td>
<td>3</td>
<td>Programming Logic and Design</td>
</tr>
<tr>
<td>BMGT 1301</td>
<td>3</td>
<td>Introduction to Management</td>
</tr>
<tr>
<td>BCIS 2306</td>
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<td>Fundamentals of Network Systems</td>
</tr>
<tr>
<td>BCIS 2307</td>
<td>3</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>BCIS 2308</td>
<td>3</td>
<td>Data and Information Management</td>
</tr>
<tr>
<td>BCIS 2309</td>
<td>3</td>
<td>Ethical, Social, and Legal Dimensions of Computer</td>
</tr>
<tr>
<td>BCIS 2322</td>
<td>3</td>
<td>Client-Side Scripting (HTML)</td>
</tr>
<tr>
<td>BCIS 3313</td>
<td>3</td>
<td>Data Warehouse and Business Intelligence (BI)</td>
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<td>BCIS 3303</td>
<td>3</td>
<td>Networking Administration</td>
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<tr>
<td>BCIS 2390</td>
<td>3</td>
<td>System Analysis and Design</td>
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<tr>
<td>BCIS 3311</td>
<td>3</td>
<td>IT Project and Service Management</td>
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<td>BCIS 4301</td>
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<td>Fundamentals of Information Security</td>
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<td>Cloud Computing and Virtualization Methods</td>
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<tr>
<td>BCIS 4305</td>
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<td>Advanced UNIX Administration</td>
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<td>BCIS 4362</td>
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<td>BCIS 4363</td>
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<td>Capstone II (Internship)</td>
</tr>
</tbody>
</table>

**CIS CORE COURSES** 57 Semester Credit Hours

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## CONCENTRATION COURSES

Choose (18) additional Semester Credit Hours in Concentration

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## BACHELOR OF SCIENCE DEGREE

**COMPUTER INFORMATION SYSTEMS**

### CONCENTRATIONS

#### CONCENTRATION: INFORMATION TECHNOLOGY

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Cr.</th>
<th>Course name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCIS 2302</td>
<td>3</td>
<td>Computer Programming I</td>
</tr>
<tr>
<td>BCIS 2303L</td>
<td>3</td>
<td>Computer Programming LAB</td>
</tr>
</tbody>
</table>

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**TOTAL** 120 Semester Credit Hours

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*General Education Courses* 45 Semester Credit Hours

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**B.S. Degree Program Length: Minimum 10 semesters of instruction. Maximum satisfactory time frame Completion: 15 semesters.*
Course Descriptions

BCIS – Business Computer Information Systems

**BCIS 1301 Fundamentals of Computer Information Systems – 3 Credit Hours**
Overview of Computer systems hardware, operating systems, and micro-computer application software, including the Internet, word processing, spreadsheets, presentation graphics, and databases. Current
issues such as the effect of computers on society, and the history and use of Information Technology in business, educational, and other modern settings are also studied.

Prerequisite(s): None

**BCIS 1302 Programming Logic and Design – 3 Credit Hours**

This course is an introduction to the program development and design process, including computer-based concepts of problem-solving, structured programming logic and techniques, algorithm development and program design. Topics include program flowcharting, algorithms, input/output techniques, control structures (sequence, selection/decision, and repetition/looping), modularization, procedures/functions/methods, file handling, control breaks, pseudo-coding, and user documentation. Basic concepts of object oriented programming are also introduced (classes and objects). The course offers students an opportunity to apply skills in a laboratory environment.

Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits

**BCIS 1305 Business Computer Applications - 3 Credit Hours**

The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet.

Prerequisite(s): COSC 1301 Introduction to Computing: The designated course must be taken prior to any other HIT core courses

**BCIS 2302 Computer Programming I – 3 Credit Hours**

This course is in line to provide the introductory IT student with a basic introduction to Computer programming technology and algorithmic problem solving using Java as the introductory programming language. Topics covered include control structures, arrays, functions, recursion, dynamic memory allocation, simple data structures, files, and structured program design. Elements of object-oriented design and programming are also introduced.

Prerequisite(s): BCIS 1302 Programming Logic and Design or Transfer credits

**BCIS 2303 Computer Programming I Lab – 3 Credit Hours**

This course is a continuation of Programming I. This course introduces the student to object-oriented programming through a study of the concepts of program specification and design, algorithm development, and coding and testing using a modern software development environment. Students learn how to write programs in an object-oriented high-level programming language. Topics covered include fundamentals of algorithms, flowcharts, problem solving, programming concepts, classes and methods, control structures, arrays, and strings.

Prerequisite(s): BCIS 1302 Programming Logic and Design or Transfer credits

**BCIS 2304 Computer Programming II – 3 Credit Hours**

This course is a continuation of Programming I. This course includes an introduction to data structures such as queues and stacks. Students will use a structured programming language such as JAVA or C++ in problem solving. Examines advanced features of modern programming languages such as object-oriented programming, string manipulation functions, and visual programming. Both procedural and event-driven programming is covered.

Prerequisite(s): BCIS 2302 Computer Programming I or Transfer credits

**BCIS 2305 Computer Programming II Lab – 3 Credit Hours**
This is the laboratory activities section of BCIS 2304 and covers structured programming languages such as JAVA or C++ in problem solving. This course examines advanced features of modern programming languages such as object-oriented programming, string manipulation functions, and visual programming. Both procedural and event-driven programming is covered. This course will also include an introduction to data structures such as queues and stacks.

Prerequisite(s): BCIS 2302 Computer Programming II or Transfer credits

BCIS 2306 Fundamentals of Network Systems – 3 Credit Hours
This course covers the architecture, function, and configuration of computer hardware and networks, along with basic operating system software functions. The students are introduced to network and communications concepts including operational issues surrounding network planning, configuration, monitoring, trouble shooting, and management.

Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits

BCIS 2307 Operating Systems – 3 Credit Hours
This course examines the important problems in operating system design and implementation. The operating system provides an established, convenient, and efficient interface between user programs and the bare hardware of the Computer on which they run. Responsible for sharing resources (e.g., disks, networks, and processors), providing common services needed by many different programs (e.g., file service, the ability to start or stop processes, and access to the printer), and protecting individual programs from interfering with one another. Particular emphasis will be given to three major OS subsystems: process management (processes, threads, CPU scheduling, synchronization, and deadlock), memory management (segmentation, paging, swapping), and file systems; and on operating system support for distributed systems, monitoring, trouble shooting, and management. Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits

BCIS 2308 Data and Information Management – 3 Credit Hours
This is an introductory course to database management systems. Examines data structures, file organizations, concepts and principles of database management systems (DBMS), as well as data analysis, database design, data modeling, database management and database implementation. The course provides hands-on experience in database design and implementation through assignments, lab exercises and course projects.

Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits

BCIS 2309 Ethical, Social and Legal Dimensions of Computer (CMP) – 3 Credit Hours
The course covers ethical style of good writing in Computer Information Systems and Science; the social, legal, philosophical, and economic issues related to Computers that members of a technological society might face in their professional and civic lives; the copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods; the proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and Intranet; the measures, such as passwords or virus detection/prevention, to protect Computer systems and databases from unauthorized use and tampering; and the impact of Computer programming on the
World Wide Web (WWW) community.

Prerequisite(s): None

**BCIS 2322 Client-Side Scripting (JAVASCRIPT & HTML) – 3 Credit Hours**
The course covers the introduction to programming and scripting concepts, using JavaScript as the catalyst for learning client-side scripting. Topics include: JavaScript and Dynamic HTML for interactivity · Forms and introductory data processing.

*Prerequisite(s): BCIS 1302 Programming Logic and Design or Transfer credits*

**BCIS 2390 System Analysis and Design – 3 Credit Hours**
A study of the systematic analysis, design, and implementation of software systems with special emphasis on the processes and skills used in the first four stages of the System Development Life Cycle. Traditional and current methodologies, including Computer aided analysis and design tools will be considered. Topics will be approached through project - oriented cases and projects, which integrate theory and practical application.

*Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits*

**BCIS 3301 Data Structures and Algorithm Analysis – 3 Credit Hours**
This course aims to introduce the student to the concept of data structures through abstract data structures including lists, sorted lists, stacks, queues, de-queues, sets/maps, directed acyclic graphs, and graphs; and implementations including the use of linked lists, arrays, binary search trees, M-way search trees, hash tables, complete trees, and adjacency matrices and lists.

*Prerequisite(s): BCIS 2305 Computer Programming II (Lab) or Transfer credits*

**BCIS 3302 Data Structures and Algorithm Analysis Lab – 3 Credit Hours**
This course will continue from BCIS 3301 and apply concept of algorithms design. This includes greedy, divide-and-conquer, random and backtracking algorithms and dynamic programming; and specific algorithms including, for example, resizing arrays, balancing search trees, shortest path, and spanning trees.

*Prerequisite(s): BCIS 2305 Computer Programming II (Lab) or Transfer credits*

**BCIS 3303 Networking II – 3 Credit Hours**
An introduction to the advanced design and analysis of computer communication networks. Topics include application layer protocols, internet protocols, network interfaces, local and wide area networks, wireless networks, bridging and routing, and current topics. Topics include history, media, hardware, software, standards, networks, analysis and design, distributed processing and network management.

*Prerequisite(s): BCIS 2306 Fundamental of Network Systems or Transfer credits*

**BCIS 3311 IT Project and Service Management – 3 Credit Hours**
In this course, particular emphasis will be placed on the issues associated with the successful completion of a project, including defining, scheduling, and monitoring project activities; interacting with clients in interviews and project reviews; and managing client expectations. The rapidly changing field of information technology requires a solid knowledge foundation. Reviews contemporary information technology management and the relevant issues of effective management of the information service activities.

*Prerequisite(s): BMGT 1301 Introduction to Management or Transfer credits*
**BCIS 3312 Relational Database Design with SQL – 3 Credit Hours**
An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL). This course may be repeated if topics and learning outcomes vary. Course may be substituted with BCIS 4301 for students that have taken this course prior to February 2017.

*Prerequisite(s): Basic understanding of problem solving and logic structures used with computers obtained in BCIS 1302 and BCIS 2308 Data and Information Management*

**BCIS 3313 Data Warehouse and Business Intelligence (BI) – 3 Credit Hours**
This course will help the student understand the process by which a data warehouse system is designed and developed. The student will get acquainted with OLAP models and their differences with standard OLTP models. Students will learn concepts, tools, and technologies associated with modeling, design, implementation, and management of data warehouses.

*Prerequisite(s): BCIS 2308 Data and Information management or Transfer credits*

**BCIS 4301 Fundamentals of Information Security – 3 Credit Hours**
This course outlines best practices for the information security goals of confidentiality, integrity and availability; explain ethical practices; define vocabulary/terminology related to information security; explain the importance of planning and administrative controls; identify security threats, vulnerabilities, and counter-measures; and identify procedures for security risk management.

*Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits*

**BCIS 4304 Introduction to UNIX – 3 Credit Hours**
This course will introduce the UNIX operating system, discuss UNIX commands, the file system, text editors, the UNIX shell, and shell scripts. The primary focus will be on command line usage. Covers the history, kernel, file systems, shells and user utilities. Also introduces students to the fundamentals of shell programming, processes, communications, and basic security.

*Prerequisite(s): BCIS 2307 Operating Systems or Transfer credits*

**BCIS 4305 Advanced UNIX Administration – 3 Credit Hours**
This course will concentrate on normal tasks of a system administrator to include system backup and file maintenance, Linux server maintenance and set up. Overview of integration of files and directories, shell scripting and systems programming; UNIX tools; UNIX internals; file systems, process structure. Using the system call interface and Inter-process communication.

*Prerequisite(s): BCIS 4304 Introduction to UNIX or Transfer credits*

**BCIS 4311 Cloud Computing and Virtualization Methods – 3 Credit Hours**
This course covers a series of current cloud computing technologies, including technologies for infrastructure as a Service, Platform as a Service, Software as a Service, and Physical Systems as a Service. For different layers of the cloud technologies, practical solutions using real world examples as well as theoretical solutions are introduced. Highly project oriented, involving hands-on exploration of existing technologies as well as development of new technologies.

*Prerequisite(s): BCIS 2307 Operating Systems or Transfer credits*

**BCIS 4361 IT Audit and Controls – 3 Credit Hours**
This course explores organizational and managerial issues relevant to planning and conducting IT audit and control activities. Covers the role of the IS auditor, the IS audit functions, and the anatomy of controls in an information systems environment. Access to systems, resources, and data audit controls. Access to IT performance design, placement, and quality of controls. Understand some of the basic theory underlying computer security policies, models, and problems.

Prerequisite(s): None

**BCIS 4362 CAPSTONE 1 – 3 Credit Hours**

In this Capstone, students will develop the proposal for the Capstone Project, including project design, methods, and procedures using Java programming for specific task. During this course, students will work with their Capstone Committee, completing the project and preparing a written manuscript and oral presentation of the Capstone. This course will culminate in an oral defense of the capstone.

Prerequisite(s): BCIS 4304 Introduction to UNIX

**BCIS 4363 CAPSTONE II Internship – 3 Credit Hours**

A course consists of internship with IT related companies. Work experience is cooperatively planned by the department and employer to fulfill the student’s objectives. Weekly conferences, assignments, and reports required. Students are expected to apply classroom and laboratory concepts and principles in an industry work environment. In this course, students are expected to establish goals by working with supervision to define work objectives for the internship experience. They are also expected to demonstrate time and project management skills by completing the work objectives within the specified time limits.

Prerequisite(s): BCIS 4362 Capstone Project I

**BCSC – (Bachelors) Computer Information Systems - Cybersecurity**

**BCSC 2302 Digital Forensics in Criminal Justice System – 3 Credit Hours**

This course will introduce students to digital forensics as practiced by local, state, and federal law enforcement. Students will gain hands-on experience with several digital forensic tools in this laboratory based course. Students taking this course will become familiar with the emerging responsibilities of cybercrime investigators, as well as developing a hands-on working knowledge of software commonly used at many law enforcement agencies. The course will use “Encase Tools” for laboratory activities.

Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits

**BCSC 2303 Threats of Terrorism and Crime – 3 Credit Hours**

This course is designed to acquaint students with the security threats posed by both terrorist and criminal activity, and with strategies to combat these threats. Terrorism and security are defined as well as terrorism in its historical context. Varieties of terrorist groups, organizations and their actions are studied with targets of terrorism being a focus. Types of crime including street, employee, organization and white collar crime are studied.

Prerequisite(s): None
BCSC 2304 Risk Management: Assessment and Mitigation – 3 Credit Hours
This course will cover events such as identify theft, physical security during international travel, or invasion of one’s privacy. Focus will be on incidents such as cyber-crimes, fires, flooding, financial frauds, kidnapping of employees, and expropriation of resources. Covers the following conceptual areas: business risks and the management of business risk, IT risk as a component of business risk, the need to manage IT risks, and the basic type of controls required in a business system in order to control IT risks. Issues associated with new risks created by the use of the internet for business applications and electronic businesses are also covered.
Prerequisite(s): None

BCSC 2305 Security Policy Analysis and Implementation – 3 Credit Hours
This course will cover Network Security Policies and implementation of firewall policies, stateful firewalls, and firewall appliances. Network-related physical security, risk management and disaster recovery/contingency planning issues and housekeeping procedures.
Prerequisite(s): None

BCSC 3305 Fundamentals of Ethical Hacking and Penetration Testing – 3 Credit Hours
This course will cover the process of gathering Information Intelligence, identifying and solving Security Vulnerabilities, develop Exploits, scan and Produce Vulnerability Assessments and application of Network Attacking Techniques. Message authentication codes and key management. WLAN security, IPSec, SSL, and VPNs are also included in the topics to be covered.
Prerequisite(s): BCSC 2305 Security Policy Analysis and Implementation or Transfer credits

BCSC 4306 Database Security – 3 Credit Hours
This course covers the principles and practices of implementing computer database security in modern businesses and industries, including database security principles, database auditing, security implementation and database reliability. Focus will be on issues related to the design and implementation of secure data stores. Emphasis will be placed on multi-level security in database systems, covert channels, and security measures for relational and object-oriented database systems.
Prerequisite(s): BCSC 2305 Security Policy Analysis and Implementation or Transfer credits

BMGT – (Bachelors) Management

BMGT 1301 Introduction to Management – 3 Credit Hours
This course will provide students with a framework to understand the introductory structure and dynamics of Management. In addition, this hands-on class intends to provide students a deep understanding and practical skills to manage an organization in a globalized business environment heavily influenced by digital, interactive, viral, Web 2.0, Web 3.0, Social Media, and High Tech-Innovation Knowledge environments.
Prerequisite(s): None
COSC – Computer Science

COSC 1301 Introduction to Computing – 3 Credit Hours
Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science.
Prerequisite(s): None

COSC 2303 Introduction to Digital Forensics – 3 Credit Hours
This course is an introductory course in collecting, examining, and preserving evidence of computer crimes. This course examines the issues, tools, and control techniques needed to successfully investigate illegal activities facilitated through the use of information technology. The tools of collecting, examining, and evaluating data in an effort to establish intent, culpability, motive, means, methods, and loss resulting from e-crimes will be examined.
Prerequisite(s): BCIS 1301 Fundamentals of Computer Information Systems or Transfer credits

COSC 2304 Security Policy Analysis, HIPPA and Implementation – 3 Credit Hours
This course will cover Network Security Policies, HIPPA Privacy Rule, and implementation of firewall policies, stateful firewalls, and firewall appliances. Network-related physical security, risk management and disaster recovery/contingency planning issues and housekeeping procedures.
Prerequisite(s): None

COSC 4307 Intrusion Detection and Incident Response – 3 Credit Hours
This course provides an in-depth look at intrusion detection methodologies and tools and the approaches to handling intrusions when they occur; examines the laws that address cybercrime and intellectual property issues; and includes a study of proper computer and network forensics procedures to aid in the identification and tracking of intruders and in the potential prosecution of criminal activity.
Prerequisite(s): COSC 3305 -Web Application Security with a grade of "C" or better.

COSC 3305 Web Application Security 1 – 3 Credit Hours
The security issues related to web applications will be discussed in this course. Topics include web application authentication, authorization, as well as browser and web database security principles. Various web application security attack types such as code injection, cross-site scripting, and cross-site request forgery will be studied. The course will also include discussions about business aspects that contribute to a secure web-based transaction environment.
Prerequisite(s): BCIS 2322 - Client-Side Scripting (HTML) with a grade of "C" or better.

COSC 3306 Network Security – 3 credit Hours
The course provides a foundation in networking technologies that are core to creating secure networks. Topics included in this course are basic cryptography, secure networking protocols, logical and physical security management and security devices. Relation between these technologies and operational and implementation issues for these technologies will also be discussed.
Prerequisite(s): BCIS 2306 – Fundamental of Network Systems and Network Administration and BCIS 3303 – Network Administration with a grade of "C" or better.
HITT – Health Information Technology Technical

HITT 1311 Electronic Medical Records Systems – 3 Credit Hours
Introduction to the concepts of computer technology related to health care and the tools and techniques for collecting, storing, and retrieving health care data. (3 credit Hours).
Prerequisite(s): None

Associate of Science Degree with a Major in General Studies

Mission
The mission of the Associate of Science Degree with a Major in General Studies is to provide students with the foundational skills and knowledge to: (a) succeed in the student's future career or program of study, (b) make informed and responsible life decisions, and (c) pursue opportunities for lifelong learning.

General Program Information
The Associate of Science in General Studies program helps students develop a basic set of transferable skills. The General Education curriculum helps to develop a deeper appreciation of the complexities and potentialities of the human experience from the perspectives of the arts, humanities, and the natural and social sciences while encouraging an understanding of imagination and creativity through the application of abstract and intuitive thinking. The program allows you to choose between four areas of concentration: Anatomy, Business, Information Technology, and Health Care. Concentrations in each discipline are a pathway to a Parker University offered Bachelor Degree Program.

Program Learning Outcomes
The graduating student will be able to:

1. Demonstrate the ability to communicate effectively through writing.
2. Demonstrate the ability to read critically and interpret literature.
3. Demonstrate the ability to perform the basic mathematical calculations and understand quantitative information.
4. Demonstrate the ability to think critically to evaluate and solve problems.

Length of Program
The degree program may be completed in a minimum of 5 terms of instruction and with a maximum satisfactory time frame for completion of 7.5 terms. The curriculum includes: 60 semester credit Hours of General Education core courses, or 42 semester credit Hours in General Education core courses and 18 semester credit Hours of course work in a chosen concentration (i.e., Anatomy, Business, Information Technology, and Health Care).

Mode of Instruction
Associate of Science degree with a major in General Studies will be offered through a variety of instructional formats (i.e., campus-based, distance education and hybrid instructional formats).
Technical Standards
Credits and degrees earned from this institution do not automatically qualify the holder to participate in professional certification or licensure exams. Different IT certification examinations or tests are at the discretion of the student. Parker University does not guarantee graduates will successfully pass such exams.

Degree Requirements
The Associate of Science with a Major in General Studies requires a minimum of 60 semester credit Hours of coursework which are as follows:

- 60 Credit Hours in required General Education courses or
  - 42 Credit Hours in required General Education courses and
  - 18 Credit Hours in courses from the student’s major concentration (i.e., Anatomy, Business, Information Technology, and Health Care).

The Associate of Science in General Studies program must be completed within 7.5 terms.

Graduation Requirements
To earn an Associate of Science with a Major in General Studies from Parker University, students must accomplish the following:

- Complete the designated program of study.
- Complete degree requirements with a cumulative grade point average of 2.0 or higher on a 4.0 scale.
- File an application for the degree with the Office of the Registrar on or before the published date during the last term of resident study. The degree will not be awarded unless the application is completed.
- Resolve all financial obligations to Parker University.
- Complete all required exit paperwork.

Students cannot be on academic probation or subject to disciplinary sanctions at the time of graduation.

Curriculum

ASSOCIATE OF SCIENCE DEGREE
GENERAL STUDIES
**GENERAL EDUCATION CORE COURSES**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Cr.</th>
<th>Course name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 1301</td>
<td>3</td>
<td>Introduction to Computing</td>
<td>12</td>
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<tr>
<td>ENGL 1301</td>
<td>3</td>
<td>English Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 1302</td>
<td>3</td>
<td>English Composition II</td>
<td></td>
</tr>
<tr>
<td>SPCH 1311</td>
<td>3</td>
<td>Introduction to Speech Communications</td>
<td></td>
</tr>
<tr>
<td>Communication*</td>
<td>12</td>
<td>*Or choose other equivalent courses in Communications</td>
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**MATHEMATICS**

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<tbody>
<tr>
<td>MATH 1314</td>
<td>3</td>
<td>College Algebra</td>
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<tr>
<td>MATH 1316</td>
<td>3</td>
<td>Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MATH 1324</td>
<td>3</td>
<td>Math for Business and Social Sciences (Finite Mathematics)</td>
<td></td>
</tr>
<tr>
<td>MATH 1342</td>
<td>3</td>
<td>Elementary Statistical Methods I</td>
<td></td>
</tr>
<tr>
<td>Mathematics*</td>
<td>3</td>
<td>*Or choose other equivalent course in Mathematics</td>
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**NATURAL & LIFE SCIENCES**

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<th>Credit Hours</th>
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<tr>
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<td>Biology for Non-Science Majors I</td>
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<td>BIOL 1309</td>
<td>3</td>
<td>Biology for Non-Science Majors II</td>
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<tr>
<td>BIOL 2401</td>
<td>4</td>
<td>Anatomy &amp; Physiology I</td>
<td></td>
</tr>
<tr>
<td>BIOL 2402</td>
<td>4</td>
<td>Anatomy &amp; Physiology II</td>
<td></td>
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<tr>
<td>Natural &amp; Life Sciences*</td>
<td>6</td>
<td>*Or choose other equivalent courses in Natural &amp; Life Sciences</td>
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**SOCIAL & BEHAVIORAL SCIENCES**

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<th>Credit Hours</th>
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<td>Introduction to Psychology</td>
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<tr>
<td>GOVT 2305</td>
<td>3</td>
<td>Federal Government</td>
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<tr>
<td>GOVT 2306</td>
<td>3</td>
<td>Texas Government</td>
<td></td>
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<tr>
<td>HIST 1301</td>
<td>3</td>
<td>United States History I</td>
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<tr>
<td>HIST 1302</td>
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<td>United States History II</td>
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<td>Social &amp; Behavioral Sciences*</td>
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**HUMANITIES**

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<td>Music Appreciation</td>
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<td>Humanities*</td>
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**ELECTIVES**

Choose from 1000 or above level courses not used in General Education Core or choose a specialization area in Anatomy, Business, and Information Technology.

A.S. Degree Program Length: Minimum 5 terms of instruction. Maximum satisfactory time frame Completion: 7.5 Terms

### ASSOCIATE OF SCIENCE DEGREE

**GENERAL STUDIES**

**CONCENTRATIONS**
### CONCENTRATION: ANATOMY 18 Semester Credit Hours

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<thead>
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<tr>
<td>PSYCH 2314</td>
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<td>Human Growth &amp; Development</td>
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### CONCENTRATION: BUSINESS 18 Semester Credit Hours

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<tr>
<td>BMGT 1301</td>
<td>3</td>
<td>Introduction to Management</td>
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<tr>
<td>BCIS 1305</td>
<td>3</td>
<td>Business Computer Applications</td>
</tr>
<tr>
<td>ECON 2301</td>
<td>3</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECON 2302</td>
<td>3</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ACCT 2301</td>
<td>3</td>
<td>Principles of Financial Accounting</td>
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<tr>
<td>ACCT 2302</td>
<td>3</td>
<td>Principles of Managerial Accounting</td>
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### CONCENTRATION: HEALTH CARE 18 Semester Credit Hours

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<tr>
<td>SOCI 1043</td>
<td>3</td>
<td>Introduction to Public Health</td>
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<tr>
<td>HITT 1011</td>
<td>3</td>
<td>Electronic Medical Records Systems (EMRS)</td>
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<tr>
<td>KINE 1304</td>
<td>3</td>
<td>Personal/Community Health</td>
</tr>
<tr>
<td>ANTH 2351</td>
<td>3</td>
<td>Social &amp; Cultural Anthropology</td>
</tr>
<tr>
<td>BIOL 1322</td>
<td>3</td>
<td>Nutrition &amp; Diet Therapy</td>
</tr>
<tr>
<td>PSYC 2314</td>
<td>3</td>
<td>Human Growth &amp; Development</td>
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### CONCENTRATION: INFORMATION TECHNOLOGY 18 Semester Credit Hours

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<td>Programming Logic and Design</td>
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<tr>
<td>BCIS 2306</td>
<td>3</td>
<td>Fundamentals of Network Systems</td>
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<td>BCIS 2307</td>
<td>3</td>
<td>Operating Systems</td>
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<td>BCIS 2308</td>
<td>3</td>
<td>Data and Information Management</td>
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<tr>
<td>BCIS 2309</td>
<td>3</td>
<td>Ethical, Social, and Legal Dimensions of Computer</td>
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<tr>
<td>BCIS 2322</td>
<td>3</td>
<td>Client-Side Scripting (HTML)</td>
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</table>

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**Course Descriptions**

**ANTH – Anthropology**

**ANTH 2351 Cu – 3 Credit Hours**
The study of human cultures. Topics may include social organization, institutions, diversity, interactions between human groups, and ethics in the discipline.

*Prerequisite(s): None*

**BIOL – Biology**

**BIOL 1308 Biology for Non-Science Majors I – 3 Credit Hours**
Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

*Prerequisite(s): None*

**BIOL 1309 Biology for Non-Science Majors II – 3 Credit Hours**
This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology.

*Prerequisite(s): None*

**BIOL 1322 Nutrition & Diet Therapy – 3 Credit Hours**
This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed.

*Prerequisite(s): None*

**BIOL 2401 Anatomy & Physiology I (lecture + lab) – 4 Credit Hours**
Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on inter-relationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

*Prerequisite(s): None*

**BIOL 2402 Anatomy & Physiology II (lecture + lab) – 4 Credit Hours**
Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on inter-relationships among systems and regulation of physiological functions involved in maintaining homeostasis.

*Prerequisite(s): None*

**BIOL 2101 & 2102 Anatomy & Physiology I & 2 (Lab only) – 1 Credit Hours**
The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

*Prerequisite(s): None*
CHEM 1411 General Chemistry I – 4 Credit Hours
Fundamental principles of chemistry and the scientific method for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry.
Prerequisite: High school Algebra or equivalent academic preparation

CHEM 1111 General Chemistry I (lab) – 1 Credit Hours
Basic laboratory experiments supporting theoretical principles presented in General Chemistry I; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports.

CHEM 1412 General Chemistry II – 4 credit Hours
Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry.
Prerequisite: CHEM 1411 General Chemistry I (Lecture and Laboratory)

CHEM 1112 General Chemistry II (lab) – 1 Credit Hours
Basic laboratory experiments supporting theoretical principles presented in General Chemistry II; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports.

CHEM 2423 Organic Chemistry I – 4 Credit Hours
Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules.
Prerequisite: CHEM 1412 General Chemistry II (Lecture and Laboratory)

CHEM 2123 Organic Chemistry I (lab) – 1 Credit Hours
This laboratory-based course accompanies Organic Chemistry I. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined.

CHEM 2425 Organic Chemistry II – 4 Credit Hours
Advanced principles of organic chemistry will be studied, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction
mechanisms, functional groups, and synthesis of simple molecules.
Prerequisite: CHEM 2423 Organic Chemistry I (Lecture and Laboratory)

CHEM 2125 Organic Chemistry II (lab) – 1 Credit Hours
This laboratory-based course accompanies Organic Chemistry II. Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules.

ECON – Economics

ECON 2301 Principles of Macroeconomics – 3 Credit Hours
An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy.
Prerequisite(s): None

ECON 2302 Principles of Microeconomics – 3 Credit Hours
Students focus on economic theory in the beginning of the course, emphasizing basic supply and demand as well as market structure analysis. Central issues include elasticity of demand and of supply, consumer choice and production and costs; and market structure analysis of perfect competition, monopoly, monopolistic competition and oligopoly. The course continues in the labor market; factors of production; externalities and public goods; network goods and services; poverty and income distribution; and international trade. The impact of key economic principles will be emphasized.
Prerequisite(s): None

ENGL – English

ENGL 1301 Composition I – 3 Credit Hours
Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.
Prerequisite(s): None

ENGL 1302 Composition II – 3 Credit Hours
Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Prerequisite: ENGL 1301 or its equivalent
Prerequisite(s): None
ENGL 2326 American Literature – 3 Credit Hours
A survey of American literature from the period of exploration and settlement to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301 (Composition I)
Prerequisite(s): None

GOVT – Government

GOVT 2305 Federal Government 3 Credit Hours
Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights.
Prerequisite(s): None

GOVT 2306 Texas Government – 3 Credit Hours
Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas.
Prerequisite(s): None

KINE – Kinesiology

KINE 1164 Introduction to Physical Fitness & Wellness – 1 Credit Hours
Students are introduced to wellness related concepts and activities for the purpose of gaining knowledge and skills necessary to evaluate personal fitness levels and to develop a personal lifelong fitness program.
Prerequisite(s): None

KINE 1304 Personal/Community Health – 3 Credit Hours
Emphasis is placed on relating course content to lifestyle to foster a better understanding of the major health issues of today. Current issues include, but are not limited to: emotional health, chemical use and abuse, human sexuality, major diseases, physical fitness, nutrition, aging, death and dying.
Prerequisite(s): None

MATH – Math

MATH 1314 College Algebra – 3 Credit Hours
In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.
Prerequisite(s): None
MATH 1316 Trigonometry – 3 Credit Hours
In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included.
Prerequisite(s): None

MATH 1324 Math for Business and Social Sciences – 3 Credit Hours
The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value.
Prerequisite(s): None

MATH 1325 Math for Business and Social Sciences II – 3 Credit Hours
This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH 2413, Calculus I.
Prerequisite(s): MATH 1314 College Algebra or MATH 1324 Mathematics for Business and Social Sciences

MATH 1342 Elementary Statistical Methods I – 3 Credit Hours
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.
Prerequisite(s): None

MATH 2305 Discrete Mathematics – 3 Credit Hours
A course designed to prepare math, computer science, and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. Topics include: logic, relations, functions, basic set theory, countability and counting arguments, proof techniques, mathematical induction, combinatorics, discrete probability, recursion, sequence and recurrence, elementary number theory, graph theory, and mathematical proof techniques.
Prerequisite: MATH 1314 College Algebra or higher.

MATH 2342 Elementary Statistical Methods II – 3 Credit Hours
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.
Prerequisite(s): None

MUSI – Music

MUSI 1306 Music Appreciation – 3 Credit Hours
Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances. (Does not apply to a music major degree.)

Prerequisite(s): None

**PHYS – Physics**

**PHYS 1401 Physics – 4 Credit Hours**
Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton’s Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving.

Prerequisite(s): MATH 1314 College Algebra or equivalent

**PHYS 2425 Physics I – 4 Credit Hours**
Physics deals with behavior and structure of matter. This course covers the following topics: (1) measurements, uncertainties, significant figures, (2) one dimensional motion, velocity, acceleration, (3) vectors, projectile motion (4) Force, Newton’s laws of motion, gravity, inclined planes, friction, (5) circular motion, centripetal forces, Newton’s Law of Gravitation, (6) Work, Potential and Kinetic Energy, (7) collisions, linear and angular momentum, torque, center of mass, (8) equilibrium, stress and strain.

The course consists of 8 lecture/ 4 lab Hours per week.

Prerequisite(s): MATH 1316 Trigonometry or equivalent

**PHYS 2426 Physics II – 4 Credit Hours**
This course is a continuation of Physics I. This course covers the following topics: fluids, sound, waves, heat, temperature, thermodynamics, electricity, DC circuits, magnetism and related topics. The course consists of 8 lecture/ 4 lab Hours per week.

Prerequisite(s): PHYS 2425 Physics I

**PSYC – Psychology**

**PSYC 1100 Learning Framework – 1 Credit Hours**
This interdisciplinary course addresses (1) research and theory in learning, cognition, and motivation; (2) factors that impact learning; and (3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed. Students are ultimately expected to integrate and apply the learning skills discussed. Students developing these skills should be able to continually draw from the theoretical models they have learned. Critical thinking serves as the foundation for different thematic approaches using a variety of academic disciplines.

Prerequisite(s): None

**PSYC 2301 Introduction to Psychology – 3 Credit Hours**
General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.

Prerequisite(s): None

**PSYC 2314 Growth and Human Development – 3 Credit Hours**
Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death.

Prerequisite(s): None

**SOCl – Sociology**

**SOCl 1043 Introduction to Public Health – 3 Credit Hours**
Introduces students to the discipline of public health. It will cover a variety of disciplines to the basic tenets of public health. The course will provide a history of public health, an introduction to the five core disciplines (Epidemiology, Biostatistics, Environmental Health, Social and Behavioral Health, and Health Policy & Management). The course will also cover the role of public health in a global society.

Prerequisite(s): None

**SPCH – Speech**

**SPCH 1311 Speech Communications – 3 Credit Hours**
Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.

Prerequisite(s): None

Effective May 8, 2017 Parker University’s Certificate in Massage Therapy is offered using the credit hour system.

**Curriculum**

**MT CERTIFICATE TO ASSOCIATE OF APPLIED SCIENCE IN MASSAGE THERAPY**

Students who have graduated with a Certificate in Massage Therapy from an accredited institution may complete 26 semester credit hours of general education courses to earn an Associate of Applied Science Degree with a major in Massage Therapy.
### MT Certificate

**600 Clock Hours = 34 Credit Hours**

**General Education Core Courses**

**26 Semester Credit Hours**

**34 MT Certificate + 26 Gen. Education Semester Credit Hours**

**60 Semester Credit Hours**

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<td>Swedish Massage</td>
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<td>AMM0101</td>
<td>75</td>
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<td>Anatomy &amp; Physiology</td>
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<td>HHM0102</td>
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<td>HYM0101</td>
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<td>1</td>
<td>Hydrotherapy</td>
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<td>HHM0101</td>
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<td>Human Health &amp; Hygiene</td>
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<td>Myofascial Therapy</td>
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<td>AMM0201</td>
<td>60</td>
<td>4</td>
<td>Applied Anatomy and Kinesiology</td>
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<tr>
<td>MTM0201</td>
<td>40</td>
<td>2.5</td>
<td>Neuromuscular Therapy</td>
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<td>NMM0201</td>
<td>32</td>
<td>2</td>
<td>Eastern Modalities</td>
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<tr>
<td>BPM0201</td>
<td>48</td>
<td>3</td>
<td>Business Practices &amp; Professional Ethics II</td>
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<tr>
<td>INM0201</td>
<td>80</td>
<td>2</td>
<td>Massage Therapy Intern Clinic</td>
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<tr>
<td><strong>Trimester 2 Total</strong></td>
<td><strong>300</strong></td>
<td><strong>16.0</strong></td>
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**Program Total**

- **600** Clock Hours/34 Credit Hours
- **26 Semester Credit Hours**
- **438 Semester Credit Hours**

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**Course Descriptions**

**Trimester 1 Curriculum**

**MTE0101 Swedish Massage – 125 clock hours/7.5 credit hours**

Students are introduced to the theory and history of massage. Swedish massage, as synthesized by Pehr Henrik Ling, stands as the foundation for modern Western massage, and students will learn to use the basic Swedish techniques of; effleurage, petrissage, friction, vibration, tapotement and Swedish movements/gymnastics, individually and in combination to create a full-body massage. Students will be taught proper body mechanics, draping methods, indications and contraindications for massage, introductory evaluative techniques, charting and SOAP method note taking. In addition to class sessions, students are required to engage in practice massage sessions outside of scheduled class hours.

**Prerequisites:** None
AMM0101 Anatomy & Physiology – 75 clock hours (50 Anatomy and 25 Physiology)/5 credit hours
This is the foundation course in systems-based human anatomy and physiology. Students will learn the structure and function of each of the major systems of the human body, how they inter-relate, and how they are affected by massage therapy. Students will also learn basic medical terminology, including roots, prefixes and suffixes, and combining vowels. Laboratory time will include observation of prospected human cadavers. Prerequisites: None

HHM0101 Human Health & Hygiene – 20 clock hours/1 credit hour
Students will learn disease prevention and hygiene. This course serves as the introduction to the wellness model. Wellness is defined as an active process employing a set of values and behaviors that promote optimal health, function, and quality of life. Students will be presented with a set of tools that can be utilized for both self-care and to teach clients to be active participants in the optimization of their own health and well-being. Prerequisites: None

HHM0102 Nutrition – 12 clock hours/0.5 credit hours
Students will learn the role of balanced nutrition in the wellness model. Both western and oriental approaches to general nutrition and the therapeutic use of food will be discussed. Prerequisites: None

HYM0101 Hydrotherapy – 20 clock hours/1 credit hour
This course discusses the scientific application of water, in all three of its physical states, for therapeutic purposes. Students will learn and practice the correct use of hot and cold temperatures in a variety of applications. Prerequisites: None

BPM0101 Business Practices & Professional Ethics I – 8 clock hours/ 0.5 credit hours
This is the introductory course in the fundamentals of business and the ethics of professional touch. Students will build a business plan, learn basic business management tools and learn to interview and be interviewed. State massage therapy laws will be reviewed and discussed. Students will learn key principles for ethical practice. Prerequisites: None

AMM0102 Pathology for the Massage Professional – 40 clock hours/2.5 credit hours
Students will learn to recognize pathologies and to adapt techniques to promote healing and ease discomfort. Coursework will include a thorough review of endangerment sites and contraindications for massage therapy, and the development of a network of healthcare professionals for referrals, when appropriate. Prerequisites: None

Trimester II Curriculum
MFM0201 Myofascial Therapy – 40 clock hours/2.5 credit hours
This is the first class designed to deepen and broaden therapeutic skills. Myofascial therapy is an elegant system for opening tissues to deeper work and to engender flexibility, balance, and postural alignment. This course will provide the student with the fundamental tools for this approach to bodywork. Prerequisites: Must complete all Tri 1 Classes or be a LMT

AMM0201 Applied Anatomy and Kinesiology – 60 clock hours/4 credit hours
This course is a continuation of AMM0101, with a detailed study of the effects of massage therapy on the cardiovascular and nervous systems, an exploration of fascia, and special emphasis on the skeletal and muscular systems and their role in human movement. Students will extend their knowledge of muscle
origin, insertion and action, refine palpation skills, and will be introduced to the oriental anatomical model. Prerequisites: Must complete AMMT0101 Anatomy & Physiology

**MTM0202 Neuromuscular Therapy – 40 clock hours/2.5 credit hours**
Neuromuscular therapy introduces the student to basic principles and techniques to address pain at specific muscles, and is a powerful set of tools for use in the clinical setting. Prerequisites: Must complete all Tri 1 Classes or be a LMT

**NMM0205 Eastern Modalities - Acupressure – 32 clock hours/2 credit hours**
Eastern Modalities focuses on the technique of Acupressure. Acupressure utilizes touch therapy combined with the principles of acupuncture and Chinese medicine. This course will introduce the students to an in depth study of the meridian lines as well as provide them with a detailed sequence for a client session. Prerequisites: Must complete all Tri 1 Classes or be a LMT

**BPM0201 Business Practices & Professional Ethics II – 48 clock hours/3 credit hours**
This is the second of two courses in the fundamentals of business and the ethics of professional touch, with emphasis on effective communication, marketing, and creating a sustainable practice. The importance of developing a referral network of DCs, DOs, MDs, L.Ac, and other healthcare professionals will be discussed and a plan for implementation will be developed. Prerequisites: None

**INM0221 Massage Therapy Intern Clinic – 80 clock hours/2 credit hours**
Students provide massage therapy treatment to the public in the School of Massage Therapy Intern Clinic, under the supervision of specially-licensed School faculty. Students will perform client intake, full-body massage therapy, exit interviews and documentation (SOAP note format) for each session. Students will participate in case conferences and learn client check-in and check-out procedures. Prerequisites: Must attend the ‘Clinic Orientation’ class presented in Swedish Technique MTEC0101, complete Swedish Technique (MTEC0101), Anatomy & Physiology (AMMT0101) and Pathology (AMMT0102).

For more information on General Education course descriptions please see the ‘Course Descriptions’ section of the Parker University Catalog on page 213.