University of Charleston
STEM Program Summary
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Bachelor of Science in Data Analytics

Overview: The data analytics major is an interdisciplinary program which provides students with the knowledge and skills needed to collect, integrate and analyze complex quantitative and qualitative data. Drawing upon the disciplines of statistics, mathematics and computer science, students will learn how computer programming, database management, data analysis, and data visualization tools can be utilized to collate, interpret and present complex data applicable to a wide variety of fields.

Delivery & Pricing: In-seat Charleston; Standard Charleston Tuition Rate

Curriculum: 45 credits

3	DASC 101	Introduction to Data Science
3	DASC 200	Data Mining
3	DASC 250	Data Visualization
3	DASC 310	Machine Learning
3	DASC 330	Data Modelling and Simulation
3	DASC 375	Natural Language Processing
3	DASC 450	Internship
3	DASC 475	Data Science Capstone
3	MATH 121	Algebra
3	MATH 230	Linear Algebra
4	STAT 101	Introduction to Statistics
3	STAT 120	Probability for Data Science
4	COSC 101	Introduction to Scientific Programming
4	COSC 103	Coding II: C++

Competition: In West Virginia, only two universities presently offer degree and certificate programs in the fields of data science or data analytics. Marshall University offers a master's degree in health informatics and graduate certificate programs in bioinformatics and geospatial information science. Similarly, West Virginia University offers an online master's degree in business data analytics and an online graduate certificate in applied statistics.

Differentiator: This would be the only undergraduate data analytics major in the state. Students can combine the major with a minor in Biology, Business Administration and coursework in the health sciences to prepare them for careers in bioinformatics, business analytics and health informatics, respectively. It is an interdisciplinary major comprised of courses in data science, mathematics, statistics and computer science.

Demand: According to the latest bi-monthly prospective student list sent out by the UC Admission's office, there are 16 prospective data science majors.

Career Opportunities: Demand for individuals with expertise in the field of data analytics is projected to increase significantly over the next decade. A recent study predicts that employment opportunities in the realm of data science will increase by approximately 30% by 2020, especially in the fields of business administration, marketing, finance, insurance, professional services and information technology. Similarly, rapid growth in the areas of telemedical services and health informatics is creating an urgent need for practitioners who possess the knowledge and skills needed to organize, interpret and disseminate the increasing volume and complexity of health data. Beyond this, employment opportunities are beginning to increase in fields such as law enforcement, cybersecurity, urban planning and education as decision makers exploit data mining and predictive analytics to develop proactive solutions for a wide variety of policy issues.

Bachelor of Science in Applied Computer Science

Overview: The Applied Computer Science major provides students with the knowledge and skills needed to pursue successful careers in a number of different fields, including software development, network administration, mobile computing and website design. The curriculum emphasizes the practical application of the tools and techniques that computer science professionals utilize to identify problems and devise solutions for a wide array of issues relating to information technology, including a strong emphasis on the coding and programming skills that are highly valued by employers. A unique feature of the program is a two-semester field experience where students apply their expertise while working with companies, government agencies and non-profit organizations in the community.

Delivery & Pricing: In-seat Charleston; Standard Tuition Rate

Curriculum: 76 credits

4	Math 201 Calculus I
3	Math 225 Discrete Mathematics
3	Cosc 100 Introduction to Applied Computer Science
4	Cosc 102 Introduction to Programming I
4	Cosc 103 Introduction to Programming II
4	Cosc 203 Intermediate Programming
3	Cosc 210 Software Engineering
3	Cosc 220 Computer Organization & Assembly Language
3	Cosc 280 Applied Data Structures
3	Cosc 310 Organization of Programming Languages
3	Cosc 315 Intro to Database Systems
3	Cosc 340 Operating Systems
3	Cosc 345 Computer Networks
3	Cosc 355 Mobile Computing
3	Cosc 360 Website Development
3	Cosc 370 Security and Information Assurance
12	Cosc 440 Co-op Experience
12	Cosc 450 Capstone

Competition: In West Virginia, there are a number of institutions that offer Bachelor of Science degrees in Computer Science. This includes Bethany College, Fairmont State University, Marshall University, and West Virginia University.

Differentiator: UC will be the first institution in the state to offer BS degree in Applied Computer Science. The program also a features a truly distinctive two semester experiential component comprised of a 12 credit co-op and a 12 credit capstone both of which provide students with the opportunity to gain practical experience through placements with technology companies and educational providers specializing in coding.

Demand: According to the latest bi-monthly prospective student list sent out by the UC Admission's office, there are 27 prospective computer science majors.

Career Opportunities: Employment of computer scientists is projected to grow 24 percent from 2016 to 2026, much faster than the average for all occupations. Software developers and computer scientists will be needed to respond to an increased demand for computer software. In addition, the median annual wage for computer scientists who specialize on the application side was $101,790 in May 2017 and the median annual wage for computer scientists who specialize in systems software was $107,600 in May 2017 (United States Department of Labor, Bureau of Labor Statistics, 2018). Cybersecurity is an increasingly relevant field in today's world. In her September 2016 remarks, U.S. Commerce Secretary Penny Pritzker indicated that employers nationwide face a shortfall of over 200,000 cybersecurity specialists (United States Department of Commerce, U.S. Census Bureau).

Cybersecurity and Information Assurance Major (B.S. in Applied Computer Science)

Overview: The Cybersecurity and Information Assurance major enables students to earn a bachelor's degree in applied computer science while acquiring the skills and knowledge needed to pursue successful careers in a number of different fields relating to information security. The curriculum emphasizes the practical application of the tools and techniques that cybersecurity professionals and network administrators utilize to identify security risks and devise solutions. A unique feature of the program is its emphasis on both technical skills and practical management tools which increase the versatility of graduates and their attractiveness to prospective employers in the private sector, government agencies and non-profit organizations. The curriculum also enables students to earn valuable industry-certified security certifications as they complete upper division coursework.

Delivery & Pricing: In-seat Charleston; Standard Tuition Rate

Curriculum: 76 credits

4	Math 201 Calculus I
3	Math 225 Discrete Mathematics
3	Cosc 100 Introduction to Applied Computer Science
4	Cosc 102 Introduction to Programming I
4	Cosc 103 Introduction to Programming II
4	Cosc 203 Intermediate Programming
3	Cosc 210 Software Engineering
3	Cosc 220 Computer Organization & Assembly Language

3	Cosc 280 Applied Data Structures
3	Cosc 310 Organization of Programming Languages
3	Cosc 315 Intro to Database Systems
3	Cosc 340 Operating Systems
3	Cosc 345 Computer Networks
3	Cosc 355 Mobile Computing
3	Cosc 360 Website Development
3	Cosc 370 Security and Information Assurance
3	Cyber 310 Cybersecurity Strategy
3	Cyber 320 Ethical Hacking
3	Cyber 330 Incident Handling
3	Cyber 340 Security Analysis
3	Cyber 410 Certified Information Systems Security Professional I
3	Cyber 415 Certified Information Systems Security Professional II
3	Cyber 440 Advanced Security Trends
3	Cyber 450 Cybersecurity Capstone

Competition: West Virginia University and Alderson Broaddus are the only schools in West Virginia which presently offer residentially-based programs in cybsersecurity.

Differentiator: The curriculum is a combination of hands on lab work, cyber security certification level courses that resemble training and organizational needs, combined with academic rigor to prepare students as they progress through the program, to include: Certified Ethical Hacking, Incident Handling, Security Analysis, Advanced Security Trends, and Certified Information Systems Security Professional.

Demand: There is increasing demand for cybsersecurity professionals both in West Virginia and throughout in regard to the private sector, government agencies, and non-profit organizations.

Career Opportunities: According to the U.S. Bureau of Labor Statistics (BLS), information security analyst jobs are projected to increase by 37% through 2022, which is much faster than the national average for all occupations Potential job opportunities include: Information Security Analyst, Information Systems Security Engineer, Intrusion Detection System (IDS), administrator, engineer, or technician, Network Administrator, Computer Crime Investigator, Cyber Trainer, Chief Information Security Officer (CISO).

Degree Completion Program -- BS in Cybersecurity – 60 credits

The Bachelor of Science in Cyber Security is a 2-year, online degree completion program that can be taken full time or part time and is designed for working adults who already have some college credit.

Applicants must have a 60-credit associate degree in Cybersecurity or another technology-related field from a regionally accredited institution **or** have a minimum of 60 semester credit hours with the primary focus on technology.

The 60 credits must include 9 credits of prerequisite courses or certifications as follows: 1) Intro to Computers or A+, 2) Networking Basics or Net+ and 3) Security Concepts or Security+.

Curriculum: 60 credits

Cybersecurity Courses (24 credits)

3	Cyber 310 Cybersecurity Strategy
3	Cyber 320 Ethical Hacking
3	Cyber 330 Incident Handling
3	Cyber 340 Security Analysis
3	Cyber 410 Certified Information Systems Security Professional I
3	Cyber 415 Certified Information Systems Security Professional II
3	Cyber 440 Advanced Security Trends
3	Cyber 450 Cybersecurity Capstone

Minor Requirement (select one):

21	Business Administration Minor
18	Organizational Leadership Minor

Elective Courses (15-18 credits)

Data Analytics Concentration in the B.S. in Chemistry

Overview: The data analytics concentration will enhance the existing BS Chemistry degree by providing the graduate with a strong background in mathematical analysis as applied to chemical data. Graduates will be able to use computer science, mathematics and statistics, as well as their knowledge of chemistry and cheminformatics, to analyze chemical data. The emphasis will be on retrieving data in the chemical literature for analysis of properties related to structure and reactivity. The concentration serves as an introduction to the field of cheminformatics and chemical informatics which focuses on storing, indexing, searching, retrieving, and applying information about chemical compounds.

Graduates will be well-prepared to enter graduate school in chemistry or work in the pharmaceutical or chemical industries where the interdisciplinary nature of this skill set is valued.

Delivery & Pricing: In-seat Charleston; Standard Charleston Tuition Rate

Curriculum: 23 credits (96 total credits required for the major)

- CHEM 3xx Cheminfomatics
- MATH 225 Discrete Mathematics
- MATH 230 Linear Algebra
- COSC 101 Introduction to Scientific Programming

- DASC 101 Introduction to Data Science
- STAT 101 Introduction to Statistics
- STAT 120 Introduction to Probability for Data Science

Competition: WVU offers programs in Computer Science, Statistics and Chemistry. They also offer graduate programs in Computational Statistics and Business Data Analytics. Marshall University offers graduate certificates in GIS, Bioinformatics and Health Infomatics

Differentiator: No similar program combining data science and chemistry exists in WV to our knowledge.   Although some programs in Chemistry include computational/theoretical chemistry, this area does not generally include the strong background in statistics that our graduates will have. The program is multidisciplinary, requiring coursework in chemistry, statistics, computer science and mathematics. Graduates will be much better prepared in statistics and math than graduates without the concentration. The program makes students more competitive for pursuing advanced (M.S. or Ph.D.) degrees in Chemistry and well-prepared for research in both Chemistry and Pharmaceutical Chemistry. Graduates will be highly competitive for employment in the chemical and pharmaceutical industry.

Demand: Chemoinformatics is an emerging field. Hence reliable data in regard to potential demand is difficult to obtain. However, the American Chemical Society predicts that job opportunities in this field will grow in the future, especially for companies in the polymer and chemical industries. The ACS also notes that "demand for cheminformatics specialists comes from pharmaceutical companies dealing with the high volume of data generated by high-throughput laboratory and computational modeling techniques". www.acs.org/content/acs/en/careers/college-to-career/chemistry-careers/cheminformatics.html

Career Opportunities: The Bureau of Labor Statistics does not presently list chemoinformatics among the occupations listed in its handbook. However, a recent search of the Indeed.com website shows over a 1,000 job listings with salaries from $50000 to $100000 for Chemical Data Analysts.

Data Analytics Concentration in the B.S. in Biology

Overview: With a strong emphasis of biology at the molecular, cellular, organismal, and ecosystem levels, this concentration applies the traditional techniques of computer science, mathematics, and statistics to the solution of problems in biology. Students will acquire the programming, data analysis and modeling skills required to study complex natural systems which will prepare them to deal with the large, complex, imperfect data sets typical of the biological sciences and to convert data into useful and practical information. The thorough preparation in computer science and programming required in this concentration is advantageous to students interested in pursuing a M.S. or Ph.D. in Computational biology and other fields like Biomedical Informatics, Microbiology, Ecology, which rely more and more every day on bioinformatic tools. For students interested in healthcare professions, this degree offers

a focus in genomics and proteomics both areas which are at the foundation of precision medicine, the novel approach to data driven medical treatments where the focus is on identifying which approaches will be effective for which patients based on genetic, environmental, and lifestyle factors. Since this is at its core a biology degree, our curriculum has a great deal of overlap with pre-medical requirements, so students are encouraged to seek this degree as a pre-medical school path by adding anatomy and physiology and physics or organic chemistry as electives.

Delivery & Pricing: In-seat Charleston; Standard Charleston Tuition Rate

Bachelor of Science in Digital Media Design

Overview: The program provides a foundation in the study of innovative design work with a focus on Social Media, Web and Product Development, Animation, Apps, and 3D printing technology. Students will have experiential learning opportunities to develop tangible products for a variety of end users and skills using current technology. Students will also gain practical work experience through a digital media internship based on their interests.

Delivery & Pricing: In-seat Charleston; Standard Charleston Tuition Rate

Curriculum: 39-42 credits: 11 digital media design courses and 2 computer science courses.

- DMDS 1XX (3HR) Introduction to Digital Media Design
- DMDS 2XX (3HR) Digital Media and Graphics
- DMDS 2XX (3HR) 3D Design and Product Development
- DMDS 2XX (3HR) Image Manipulation and Web Aesthetics
- DMDS 3XX (3HR) Animation, Motion, and Editing
- DMDS 3XX (3HR) Web and Social Media Design
- DMDS 3XX (3HR) Ideas and Visualization Studio
- DMDS 3XX (3HR) Social Media and Product Development Studio
- DMDS 3XX (3HR) User Interface and Web Development Studio
- DMDS 4XX (3HR) Digital Media Design Senior Capstone
- DMDS 4XX (3HR to 6HR) Digital Media Design Internship
- COSC 102 (3HR) Introduction to Coding I
- COSC 103 (3HR) Programming II: C++

Differentiator: The program offers students opportunities to learn multiple programs and develop technology for Digital Media such as Web Development, Social Media, Animation and Motion, 3D prototypes, and App Design. Students will collaborate with current majors at UC in studio and classroom settings to develop tangible products. These courses will also take advantage of team teaching and professional mentors to further develop the student's body of knowledge.

The students will have an additional opportunity to serve as Social Media Ambassadors. The Ambassadors will apply what they learn in the DMDS courses and develop a student-focused social media campaign to highlight student life at UC and the Digital Media Design program.

Students will also have the opportunity to join UC's Innovation student chapter and participate in developing digital workshops for UC and the community. The program will help students to hone their skills in areas of interest such as Social Media Design, Web development, Product Design, and Animation to become a well-rounded UC student and future alum.

Competition:

School	Program	Cost
Fairmont State Un.	Graphic Design Technology	$20,000 per year; resident on-campus
West Liberty Un.	Digital Media Design & Visual Communicaiton Design	$18,400 per year; resident on-campus
WV Wesleyan College	BFA- Graphic Design Concentration	$40,500 per year; resident on-campus
WVU	BFA- in Graphic Design	$22,500 per year; resident on-campus
Wheeling Jesuit Un.	BA- Simulation Technology and Game Design	$39,300 per year; resident on-campus
Concord Un.	Advertising/Graphic Design	$19,400 per year; resident on-campus
Marshall Un.	Graphic Design - BFA	$21,400 per year; resident on-campus
WV State Un.	MA with Concentration in Digital Media	$24,500 per year; resident on-campus

Demand: According to the 11-1-18 bi-monthly prospective student list sent out by the UC Admission's office, there are 110 prospective Graphic Design majors.

Career Opportunities
- Web Design and Development - Median Pay $67,990, Outlook 2016-2026 15% (Much Faster than average) WV - 7.9%, OH - 6.1%, KY 17.8%
- Social Media Developer - Median Pay $54,789, Outlook 2016-2026: 19% (Much Faster than average)
- Social Media Designer - Median Pay $66,130, Outlook 2016-2026: 13% (Faster than average)
- Multimedia Designer - Median Pay $70,530, Outlook 2016-2026: 8% (As fast as average), WV - 5.7%, OH - 4.2%, KY 5.7%

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, on the Internet at https://www.bls.gov/ooh/computer-and-information-technology/web-developers.htm (visited Feb 1, 2019).

Business Analytics Major

Overview: The learner will be able to: use clean datasets to extract, analyze, and communicate operational information to make data-based decisions in professional operating environments including office, manufacturing, military, banking, advising, and other managerial professions.

Delivery & Pricing: In-seat Charleston; Standard Tuition Rate

Curriculum: 70 credits, see below.

Competition: WVU has a master's degree in business analytics. Also, there are online programs outside our region. Our proposed program at UC would be initially designed to be delivered in-seat to those more traditional students, and eventually online student to attract adult learners from niche markets outside our region through existing partnerships and MOUs.

Differentiator: Business Analytics graduates will have a broad-based business education that includes development of the quantitative data analysis skills and communication skills necessary for solving real-world business problems and communicating solutions. This interdisciplinary degree will utilize the expertise in UC's computer science and data science programs, integrating 3 of those courses into the business analytics major.

Demand: Artificial Intelligence and skills for analyzing big data are growing in employer demand, but we do not currently have firm data on expected growth in the new student demand for a major in business analytics. UC investments in Computer Science, Data Science, and other STEM-related areas will likely help draw more students to other quantitative majors at UC, including Business Analytics. Projections provide by our admissions office include 10 new business analytics students for fall 2020, 15 new for fall 2021, 20 new for fall 2022, and 20 new for fall 2023.

Career Opportunities: The BLS Occupational Outlook Handbook does not list Business Analytics careers, but related careers for graduates may include: Business System Analyst, Data Analyst, Management Analyst, Sales Analyst, Market Research Analyst.

Digital Marketing Major

Overview: Our major in Digital Marketing is designed to appeal to learners with an interest in applying marketing principles to digital technology in order to improve business and marketing decision making. The major studies the history of Marketing as a discipline with special attention to 21st century digital marketing trends. Digital brings to mind banners, buttons, and pay-per-click, but indeed all forms of advertising have found digital outlets. Foundational material, history, theory, and applied simulation, and professional marketing certifications will combine to produce a skilled, market-ready, digital marketing practitioner.

Delivery & Pricing: In-seat Charleston; Standard Tuition Rate

Curriculum: 66 credits, see below.

Competition: Both Marshall and WVU offer Marketing programs in the region. This program is designed to have wide appeal to students interested in the digital media aspect of marketing. Not limited to online and meant to include digital outdoor advertising and other forms to yet evolve.

Differentiator: Designed to produce a marketing ready digital marketing manager for 21st century employment. Through application the students will research, create, and possibly execute a digital marketing campaign.

Demand: The rapid growth of social media and digital media is fostering growth in the number of employment opportunities for graduates with the skill set and experience in these industries; however, we do not have enough reliable data on student demand for this program and overall growth in new undergraduate students.

Career Opportunities: Marketing Manager, Digital Marketing Analyst, Digital Marketing Sales Professional, Digital Marketing Buyer / Advertising Placement Manager, Public Relations Specialist or Manager, Social Media Manager

Sport Analytics Major

Overview: The University of Charleston Sport Analytics bachelor of science degree program blends liberal learning, business, data analytics, computer science, movement science and sport business courses in a curriculum designed to prepare graduates for positions in areas such as intercollegiate and interscholastic athletic programs, professional sport organizations, coaching and entrepreneurship development. The Sport Analytics pre-professional program consists of a foundational core of business classes and a diverse selection of sport business classes to prepare the graduate for the sport industry. Classes also provide practicum opportunities, service learning and internship experiences that allow the student to work and gain experience with a sport analytics organization. Small class sizes allow personal attention from faculty with sport industry experience. The student progression through the 4 year degree will culminate in a Business Administration degree with a Major in Sport Analytics. The Sport Business program located in Charleston, WV is closely aligned with UC athletics in offering students experiential education throughout the four-year plan. Sport Analytics is a growing field in professional and collegiate sports. Sport analysts gather, organize and interpret data from athletic performance in games and practice. Students will learn techniques for collecting data, categorizing it based on need and utilizing the information to improve athletic performance. Sport analytics provides students with applied learning experiences and skills focused on technology (e.g., sensors), data analytics, and sport/human performance.

Delivery & Pricing: In-seat Charleston; Standard Tuition Rate

Curriculum: 81 credits; see below.

Competition: Major schools such as Syracuse, Northwestern, George Washington and Columbia have offered Sport Analytics mostly at the Master's level. Sport analytic classes are offered at

the Bachelor's level (Marshall, WVU), but few programs have minors, concentrations, or majors in Sport Analytics (Syracuse, Springfield College, California Baptist).

Differentiator: Integrated program from 3 disciplines. Practicum of 40 hours and 120 hour Internship that can be applied to the Sport Analytics. Sport Analytics classes taught by sport industry professionals.

Demand: Students will have a choice to determine if they want to specialize in the major of sport analytics. Many students have shown interest in sport analytics as a potential career option.

Career Opportunities: Sport Statistician, Sport Data Analyst, Sport Sales Analyst, Market Research Analyst.

Sport Media Major

Overview: The University of Charleston Sport Media Major blends liberal learning, integrated communication, digital media design, business and sport business courses in a curriculum designed to prepare graduates for positions in areas such as sports: journalism, broadcasting, media relations, social media, information and entrepreneurship development. The Sport Media pre-professional program consists of a foundational core of business classes, a sport business core, and a diverse selection integrated communication classes to prepare the graduate for media/communication opportunities in the sport industry. Classes also provide practicum opportunities, service learning and internship experiences that allow the student to work and gain experience with a sport media organization. The student progression through the 4 year degree will culminate in a Business Administration degree with a Major in Sport Media. The Sport Business program located in Charleston, WV is closely aligned with UC athletics and the Sports Information Director (SID) in offering students experiential education throughout the four-year plan.

Delivery & Pricing: In-seat Charleston; Standard Tuition Rate

Curriculum: 81 credits, see below.

Competition: WV State has a BS in Sport Studies that is essentially a Physical Education degree with 1 or 2 Sport Management classes. They are not a viable Sport Business/Management degree. Marshall has a BA in Sport Management Housed in the College of Health Professions with a choice of different "areas of emphasis". One of the areas is Sports Communication. WVU has a BS in Sport Management housed in the Department of Physical Activity and Sport Science. Tutiion is $400 per credit hour and $4700 per semester. They do not have different tracks or areas of emphasis. Fairmount State University and Glenville State do not have Sport Business/Management programs.

None of these Universities have a Sport Business program housed in the Department of Business culminating in a BS in Business Administration. The only school that has options for "majors" or "areas of emphasis" is Marshall. Marshall does have a Sports Communication emphasis.

Differentiator: The Sport Media major will be unique because it culminates in a Business Administration degree and will also provide a Major in Sport Media. The student will have an opportunity for an interdisciplinary degree with course offereings from BUSI, SPBU, ICOM and DMDS. They will also have the opportunity for two 1-credit-hour SPBU 298 Practicum experiences that each require 40 hours of work experience at a sport industry site. In addition there will be a 3-credit-hour internship in the last semester of the senior year; the SPBU 498 internship will require 120 hours of work experience at a sport industry site.

Demand: Sport Media is offered once a year and it is one of the most popular classes in SPBU (30 students enrolled in spring 2019). Many students express the want for more classes in journalism and broadcasting and a potential Sport Media career preference. Through ICOM and the new DMDS program, UC has plenty of curricular options to address the student needs.

Career Opportunities: Sports Information Director, Assistant Athletic Director in Media and Communication, Sports Broadcasting, Sports Journalism, Director of Sports Programming, Media Relations Director, Social Media Director, Producer for Sports Programming.

B.S. in Business Administration: Core Requirements for All Majors -- 45 credits

ACCT 201	Principles of Accounting I	3
ACCT 202	Principles of Accounting II	3
BUSI 201	Principles of Microeconomics	3
BUSI 202	Principles of Macroeconomics	3
BUSI 215	Information Systems	3
BUSI 231	Business Law I	3
BUSI 241	Business Careers & Communication	3
BUSI 316	Quantitative Methods for Business & Economics	3
BUSI 317	Business Statistics	3
BUSI 360	Business Ethics	3
BUSI 407	Global Dimensions of Business	3
BUSI 450	Business Strategy	3
FINA 312	Business Finance	3
MGMT 311	Principles of Management	3
MRKT 321	Principles of Marketing	3

Business Analytics – Required Courses in Major – 25 credits

COSC 101	Introduction to Scientific Programming	4
DASC 101	Introduction to Data Science	3
DASC 250	Introduction to Scientific Visualization	3
BUSI 31X	Big Data Analytics	3
BUSI 32X	Predictive Modelling for Business Analytics	3
BUSI 33X	Business Forecasting	3
BUSI 41X	Business Analytics Capstone	3
BUSI 498	Business Analytics Internship	3

Digital Marketing – Required Courses in Major – 21 credits

MRKT 371	Digital Marketing)	3
MRKT 301	Advertising	3
MRKT 402	Marketing Research	3
MRKT 42X	Digital Marketing Capstone	3
MRKT 498X	Marketing Internship	3
DMDS 2XX	Digital Media & Graphics	3
DMDS 3XX	Web & Social Media Design	3

Sport Analytics – Required Courses in Major -- 36 credits

SPBU 101	Introduction to Sport Business	3
SPBU 220	Coaching Theory	3
SBPU 250	Social Issues in Sport Business	3
SPBU 298	Practicum Experience	1
SPBU 301	Sport Sales/Marketing	3
SPBU 3XX	Sport Analytics Theory and Practice	3
SPBU 390	Junior Seminar	1
SPBU 435	Sport Business Ethics	3
SPBU 460	Sport Law	3
SPBU 498	Internship in Sport Business	3
COSC 101	Introduction to Computer Programming	4
DASC 101	Introduction to Data Science	3
DASC 250	Introduction to Data Visualization	3

Sport Media – Required Courses in Major – 36 credits

SPBU 101	Introduction to Sport Business	3
SPBU 225	Sport Media	3
SBPU 250	Social Issues in Sport Business	3
SPBU 298	Practicum Experience (So. and Sr. year)	1 + 1
SPBU 301	Sport Sales/Marketing	3
SPBU 360	Sport/Business Psychology	3
SPBU 390	Junior Seminar	1
SPBU 435	Sport Business Ethics	3
SPBU 460	Sport Law	3
SPBU 498	Internship in Sport Business	3
ICOM 221	Introduction to Journalism	3
ICOM 305	Public Relations Campaigns	3
DMDS 3XX	Web & Social Media Design	3

Benefits of a University of Charleston Education

Career Opportunities:

- Close industry partnerships for internships, co-ops, and jobs
- 85% of students have jobs after graduation; many others are pursuing graduate degrees
- Nearly 98% of UC students who take professional licensing and board exams pass on their first attempt
- Over 14,000 UC alumni – 6,000 in the Kanawha Valley

Student Support Networks

- Small class sizes – most have a 14:1 student-faculty ratio
- Faculty and peer mentors
- Tutoring, writing, and other academic services free of charge
- Diverse campus – U.S. students represent over 40 different states and 55 WV counties. International students represent 44 different countries

Scholarships and Financial Aid

- FT tuition rate
- WV Promise Scholarships accepted for FT students
- Financial Aid services available
- Band, Chorus, and Cheerleading scholarships available for FT students (tryouts required)