



HARFORD

COMMUNITY COLLEGE

October 24, 2018

James D. Fielder, PhD
Maryland Higher Education Commission
6 N. Liberty Street, 10th Floor
Baltimore, MD 21201

RE: New Program Approval Request - Exercise Science, Associate of Science degree


Dear Dr. Fielder:

Harford Community College is proposing a new Associate of Science degree in Exercise Science. The new program prepares students with the knowledge and experience required to complete any National Commission for Certifying Agencies (NCCA) certification, which affords students the option of direct workforce entry. In addition to this, the proposed Exercise Science program creates multiple transfer pathways to baccalaureate degrees in exercise science as well as kinesiology and employs experiential learning through the inclusion of an exercise science internship. The program's rigorous curriculum provides a foundation for diverse careers and educational pursuits.

The Exercise Science program aligns with the College's mission to provide accessible, innovative, learner-centered educational opportunities and to promote graduation, transfer, individual goal attainment and career and workforce development. The program also maintains a focus on meeting the needs of the community.

Payment in the amount of \$850 for MHEC approval has been included in the new program proposal arriving via U.S. mail. A copy of the payment is included in this electronic correspondence. Please contact Alison Amato at aamato@harford.edu or 443-412-2384 with any questions.

Sincerely,


Steven L. Thomas, PhD
Vice President for Academic Affairs



Cover Sheet for In-State Institutions
New Program or Substantial Modification to Existing Program

Table with 2 columns: Institution Submitting Proposal, Harford Community College

Each action below requires a separate proposal and cover sheet.

- Radio button options for program types: New Academic Program, New Area of Concentration, New Degree Level Approval, New Stand-Alone Certificate, Off Campus Program, Substantial Change to a Degree Program, Substantial Change to an Area of Concentration, Substantial Change to a Certificate Program, Cooperative Degree Program, Offer Program at Regional Higher Education Center

Payment Submitted: Yes/No, R*STARS/Check, Date Submitted: 10/26/2018

Table with 2 columns: Field (Department, Degree Level, Title, Credits, Codes, Modality, Resources, Date, Catalog Link) and Value

Table for Preferred Contact for this Proposal with fields: Name, Title, Phone, Email

Table for President/Chief Executive with fields: Type Name, Signature, Date, Date of Approval/Endorsement

New Program Proposal

Exercise Science, A.S.

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A. Centrality to Institutional Mission and Planning Priorities:

The mission of Harford Community College (HCC) is to provide “accessible, innovative, learner-centered educational opportunities. As an open-access institution, the college promotes graduation, transfer, individual goal attainment, and career and workforce development. The college fosters lifelong learning, global awareness, and social and cultural enrichment.”¹ The proposed Associate of Sciences in Exercise Science (EXSC) program provides students the ability to transfer to a four year institution or go directly into the workforce based on the student’s individual goal.

The EXSC program prepares students with the knowledge, experience and qualifications required to complete any National Commission for Certifying Agencies (NCCA) certification. One requirement of completing an NCCA exam includes having a CPR/AED certification, which the students will obtain when they successfully complete HTLH 102 – First Aid their last semester. Graduates may enter the work force directly, choosing from a wide variety of careers that include personal training, group exercise leaders, health club professionals, community health leaders and more. The EXSC program creates a transfer pathway to a baccalaureate degree in exercise science or kinesiology for careers in exercise science, physical therapy, strength and conditioning, or athletic training.

HCC’s Strategic Plan² is to “provide educational programs and workforce development training to meet the needs and interests of the community.” The Education, Wellness, and Community Engagement (EWCE) Division, in which the EXSC program will reside, has been formed to meet this part of the Strategic Plan. The EXSC field is in high demand within the community. Harford Technical High School offers a Sports Technician and Exercise Science (STES) program. The STES program has had 70 to 97 applicants per year over the past 4 years. The STES program averages “between 40-100 people per presentations with a total of 8-10 presentations given” during 8th grade open houses³. Kyle Mohr, exercise science teacher, states, the “program is popular among the applicants, however, I believe due to the competitive nature of the program acceptance rate, total applicants are lower”⁴. The STES program averaged 84 applicants per year.³ The Sports Technician and Exercise Science program accepts an average of 18 students per year. These statistics indicate that there is a very high interest in the community for an Exercise Science program.

¹ (2018-2019 Credit Catalog, 2018).

² “ (Goals and Strategies, 2018).

³ (Mohr, 2017)

⁴ (Mohr, 2017)

Dr. Dianna Phillips, president of Harford Community College, is in support of creating new academic programs. In her 2017-2018 report presented to the board of trustees, Dr. Phillips stated the college is examining the creation of an exercise science program⁵.

Full time faculty at Harford Community College are required to teach 30 credit hours per academic year and adjunct faculty may teach up to 15 credits per academic year. As noted in section “I: Adequacy of Faculty Resources”, the program is well supported by fourteen (14) assistant professors, four (4) associate professors, four (4) professors, and four (4) adjunct Faculty. The EXSC program will be implemented with these regularly-budgeted existing faculty resources.

HCC is committed to providing administrative, financial, and technical support for the proposed program. The EWCE Division has three (3) regularly budgeted administrative assistants and the cost of instructional supplies and technical support are factored in the operating budget on an ongoing basis.

HCC recognizes that time will be needed to grow enrollments and is vested in the success of the EXSC program. The EWCE Division has created a new position, Navigator for Program Development and Student Success, to support student completion rates. The EWCE division is also actively developing retention strategies, including consolidated block scheduling of courses, compressed courses, and dual enrollment.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan:

Societal Needs

There is a critical societal need for an Exercise Science (EXSC) program at Harford Community College (HCC) to meet both the present and future needs of both the community and the state.

A degree in ESXC can lead to many career opportunities including personal training, group exercise leader, health club professional, community health leader, physical therapy, strength and conditioning coach, athletic training and exercise physiologist.

At HCC, there is an average of sixteen (16) students per year over the last two (2) years who transfer into the Kinesiology or Athletic Training program at Towson University, HCC’s top transfer institution⁶. This would indicate there are at least 32 students at HCC who would major in EXSC if the program existed. This number does not include students who declare a major in other programs such as physical therapy or transfer a four-year institution other than Towson University. The EXSC program would help meet the community’s need by offering a degree program in their interested field of study.

There is evidence to support significant Harford County Public School student interest in the exercise science field. Kyle Mohr, Coordinator for Sports Technician & Exercise Science (STES) program at Harford Technology High School, reported: “Our program is popular among the applicants...The STES program at Harford Tech is extremely competitive and difficult to get into, so those students with a lower academic resume normally shy away from applying. I can honestly say that this program has a

⁵ (Phillips, 2018)

⁶ (Duplicated Headcount of Undergraduates by College and Major: Spring Term 2012 Through 2017, 2018)

high community interest among the students within Harford County. During our “8th grade Open House, I average between 40-100 people per presentation with a total of 8-10 presentations given that night.

2014-2015: 97 total applicants, 18 enrolled

2015-2016: 70 total applicants, 17 enrolled

2016-2017: 93 applicants, 17 enrolled

2017-2018: 77 applicants, 19 enrolled .⁷” It has been the history of the STES program to always have numbers of applicants and low acceptance rate due to the equipment and facility limitations.

Exercise Science degrees have robust enrollments at HCC’s top transfer intuitions. 2016-2017 enrollment data is as follows: Towson had 731 enrollments⁸, University of Maryland College Park had 951 enrollments⁹, Salisbury had 547 enrollments¹⁰, West Virginia University had 660 enrollments¹¹ and Frostburg State University had 174 enrollments¹².

Using HLTH 103, Wellness Theory and Application as an indicator of student interest, a review of the College’s enrollment data from the last 3 academic years identified 43 students had enrolled in HLTH 103 and at least 3-credits of health or at least 2 credits of physical education¹³.

According to O*NET, occupations in the field of exercise science have a bright outlook and employment is expected to grow rapidly in the next several years with an estimated thirty to forty percent increase in employment within the exercise science field in the state of Maryland¹⁴.

Maryland State Plan for Postsecondary Education

The 2017-2021 Maryland State Plan for Post-Secondary Education¹⁵ has identified specific goals and strategies to reduce the amount of personal debt associated with college enrollment. The EXSC program supports the following goals and strategies:

Goal 2: “SUCCESS: Promote and implement practices and policies that will ensure student success.” The EXSC program allows students to enter directly into the workforce or transfer to a four-year institution in Exercise Science or Kinesiology. The cost to complete a four-year degree is greatly reduced by completing the first two years of course work at HCC. Having a two-year degree also gives students the opportunity to work in the field of exercise science while earning a four-year degree. This in turn could provide some financial stability. The chart below outlines the cost comparison of the first two years at HCC when compared to other 4-year institutions with Exercise Science degrees. Students attending HCC for the first two years compared to a 4-year intuition will save between \$3,682 - \$5,975 over the 2 years.

⁷ (Mohr, 2017)

⁸ (Duplicated Headcount of Undergraduates by College and Major: Spring Term 2012 Through 2017, 2018)

⁹ (Department of Kinesiology, 2018)

¹⁰ (Fact Book, 2018)

¹¹ (West Virginia University - Main Campus, College/School Headcount Enrollment & Degrees Award, 2018)

¹² (Frostburg Enrollment Data, 2018)

¹³ (Bell, 2018)

¹⁴ (Build Your Future with O*NET Online, 2018)

¹⁵ (2017-2021 Maryland State Plan for Postsecondary Education, 2018)

Institution	Rate	Cost Per Credit Plus Fees 2018-2019	Cost Per 30 Credits Plus Fees	Savings Over 2 Years By Going To HCC
Harford Community College	In-County	\$154	\$4,620	
Towson University	In-State	\$331	\$9,940 ¹⁶	\$5,320
Salisbury University	In-State	\$327	\$9,824 ¹⁷	\$5,204
Frostburg State University	In-State	\$305	\$9,172 ¹⁸	\$4,552
University of Maryland Eastern Shore	In-State	\$276	\$8,302 ¹⁹	\$3,682
University of Maryland College Park	In-State	\$353	\$10,595	\$5,975

“Strategy 4: Continue to ensure equal educational opportunities for all Marylanders by supporting all postsecondary institutions” by “fostering collaborations between Historically Black Colleges and Universities and traditionally white institutions”. HCC plans to collaborate with University of Maryland Eastern Shore to create articulation agreements for their Kinesiology program.

“Strategy 6: Improve the student experience by providing better options and services that are designed to facilitate prompt completion of degree requirements” recommends the creation of “focused pathways” that demonstrate the “fastest way to obtain an associate degree by taking specific courses in a specific sequence” The EXSC program utilizes this framework to create a clear path to graduation. The EXSC program identifies the courses that a student should take each semester which makes sure the students complete the prerequisites for courses they would need to take later in the framework. Please see Appendix C for the course sequence.

“Strategy 7: Enhance career advising and planning services and integrate them explicitly into academic advising and planning” recommends opportunities for students to “explore a specific industry relevant to their academic program.” The EXSC program requires students to complete an internship with two different placements. This will “provide practical experience” and the opportunity for students to explore different industries in their program. For example, a student could select a personal training internship during their first segment and could select a physical therapist office as the second segment.

“Strategy 8: Develop new partnerships between colleges and businesses to support workforce development and improve workforce readiness.” In addition to addressing Strategy 7, the internship requirement of the EXSC program also addresses Strategy 8 by developing relationships with local businesses. The EXSC department will identify and create partnerships with several local businesses to

¹⁶ (Tuition and Expenses , 2018)

¹⁷ (Tuition and Fees, 2018)

¹⁸ (Undergraduate Tuition and Fees, 2018)

¹⁹ (Tuition and Fees, 2018)

allow the students to complete internships. This partnership will provide feedback that “could lead to improvements in curricula and programmatic outcomes.”

“Strategy 9: Strengthen and sustain development and collaboration in addressing teaching and learning challenges” to encourage the incorporation of Open Educational Resources (OERs) into programs to offset the cost of college. The HCC OER initiative actively encourages, supports, and sustains the use of OERs and low-cost, assessable formats for all courses as appropriate without compromising quality of content. Three courses in the EXSC program use OERs and the EWCE division encourages the use of OERs or low-cost materials when feasible to increasing student success.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State:

Exercise science is a multidisciplinary study, focusing on the interaction between exercise and the human body. Exercise science provides a solid foundation for an advanced degree and/or a professional certification. Some examples include exercise physiologist, physical therapist, athletic trainer, personal trainer or group exercise instructor.

Fitness Trainer and Group Aerobics Instructor

The 2018 Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. Detailed occupations in the SOC with similar job duties, and in some cases skills, education, and/or training, are grouped together. In the SOC classification for Fitness Trainer and Aerobics Instructor, the work is described as, “instruct or coach groups or individuals in exercise activities. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills.”²⁰ This classification specifically excludes athletic trainers, teachers, and coaches/scouts as these professions typically require a minimum of a bachelor’s degree to obtain employment.

This industry has a “bright outlook” in O*NET²¹, meaning the occupation is expected to grow rapidly in the next several years. This indicates there will be a large number of job openings and/or new and emerging occupations. The projected growth is illustrated in the following chart, copied from Career OneStop²² website.

State and National Trends

²⁰ (Standard Occupational Classification, 2018)

²¹ (Summary Report for: 39-9031.00 - Fitness Trainers and Aerobics Instructors, 2018)

²² (Subject: FITNESS TRAINERS AND AEROBICS INSTRUCTORS: MARYLAND, 2018)

United States	Employment		Percent Change	Job Openings ²³
	2014	2024		
Fitness trainers and aerobics instructors	279,100	302,500	8%	7,490
Maryland	Employment		Percent Change	Job Openings
	2014	2024		
Fitness trainers and aerobics instructors	6,860	9,590	+40%	350

State and National Wages

Location	Pay Period	2016				
		10%	25%	Median	75%	90%
United States	Hourly	\$9.21	\$11.60	\$18.34	\$26.45	\$35.09
	Yearly	\$19,150	\$24,120	\$38,160	\$55,010	\$72,980
Maryland	Hourly	\$8.89	\$10.43	\$19.08	\$29.90	\$40.28
	Yearly	\$18,500	\$21,690	\$39,690	\$62,190	\$83,780

O*NET²⁴, a publication of the Bureau of Labor Statistics, goes a step further to explain that the Fitness Trainers and Aerobics Instructors classification typically requires training from vocational schools, related on-the-job experience, or an associate degree. The related job titles in this field are personal trainer, aerobics instructor, fitness instructor, group fitness instructor, group exercise instructor, fitness coordinator, fitness director, fitness technician, fitness trainer, and private trainer. Typically, the titles that come up on job search engines²⁵ are fitness instructor, fitness director, personal trainer and wellness coach.

Personal Trainer

According to BLS²⁶, personal trainers work one-on-one or with two or three clients, either in a gym or in the clients' homes. They help clients assess their level of physical fitness and set and reach fitness goals. Trainers also demonstrate various exercises and help clients improve their exercise techniques. They may keep records of their clients' exercise sessions to monitor the clients' progress toward physical fitness. They also may advise their clients on how to modify their lifestyles outside of the gym to improve their fitness.

²³ Job Openings refers to the average annual job openings due to growth and net replacement.

²⁴ (Summary Report for: 39-9031.00 - Fitness Trainers and Aerobics Instructors, 2018)

²⁵ (Summary Report for: 39-9031.00 - Fitness Trainers and Aerobics Instructors, 2018)

²⁶ (Standard Occupational Classification, 2018)

Browsing through job postings, the requirements for a personal trainer position requires a certification from one or more national certifying organizations including the following organizations:

- ACE – American Council of Exercise
- ACSM - American College of Sports Medicine
- Cooper Fitness
- NASM – National Academy of Sports Medicine
- NFPT – National Federation of Professional Trainers
- NSCA – National Strength and Conditioning Association
- NPTI – National Personal Trainer Institute
- ISSA – International Sports Sciences Association
- NSPA – National Strength Professionals Association
- AFAA – Aerobics and Fitness Association of America

To become certified, the candidate must be 18 years of age, hold a current CPR and AED certification, and pass an exam. There is a fee for taking the exam, and study materials are available for purchase. The result would be receiving a CPT designation, or Certified Professional Trainer.

According to numerous job postings, a bachelor's degree is often preferred, but not required, for the position. Experience is often required, ranging from a minimum of 6 months to a year. Bachelor degree programs typically would have a practical experience component to help gain this experience. For people who have a bachelor's degree, there are higher levels of certifications available from the nationally recognized agencies, allowing them to specialize in certain areas such as nutrition, or to work with special populations such as cancer patients.

The pay for these positions is typically hourly and based on the trainer's education, certifications and experience. Personal trainers typically get paid per client session, and not a flat hourly rate. Salaried positions do exist in this field, such as a recreation coordinator position at a drug rehab center, though these positions often require a bachelor's degree.

With increased experience, people can work their way up to management level, ultimately supervising other personal trainers.

Group Exercise Instructors

According to BLS²⁷, Group exercise instructors conduct group exercise sessions that usually include aerobic exercise, stretching, and muscle conditioning. Cardiovascular conditioning classes often are set to music. Instructors select the music and choreograph a corresponding exercise sequence. Group exercise instructors are responsible for ensuring that their classes are motivating, safe and challenging, yet not too difficult for the participants.

Strong candidates for this position would have a certification from a recognized organization such as those for personal trainers, but would receive certification as a group exercise instructor, instead of a CPT. Certification is available for people interested in specializing in certain disciplines such as aqua aerobics, Pilates, or Yoga. Candidates would also have to audition for a position in a prospective

²⁷ (Standard Occupational Classification, 2018)

organization. To increase their skills, receiving certification in specific exercise classes such as Zumba, Les Mills, or Body Training Systems is possible but only if they work at a site that already has one of the programs.

Most job postings for these positions do not specify a specific level of education, though applicants still must be 18 to be certified. These positions are typically paid per class.

Fitness and Wellness Coordinators

On Towson University’s website, the Exercise Science major is listed for those who intend “to prepare qualified individuals for careers in clinical, corporate, commercial, and/or community exercise/wellness settings as well as to prepare students for graduate study in related fields.”²⁸ When using those key words to search in O*NET, the best match is Fitness and Wellness Coordinator. Fitness and Wellness Coordinators “manage or coordinate fitness and wellness programs and services. Manage and train staff of wellness specialists, health educators, or fitness instructors.”²⁹ This field is also listed as having a “bright outlook” with most people in the fields holding a bachelor’s or master’s degree.

State and National Trends

United States	Employment		Percent Change	Job Openings ¹
	2014	2024		
Fitness and Wellness Coordinators	37,800	39,300	4%	1,250
Maryland	Employment		Percent Change	Job Openings ¹
	2014	2024		
Fitness and Wellness Coordinators	4,050	5,250	+30%	230

State and National Wages

Location	Pay Period	2016				
		10%	25%	Median	75%	90%
United States	Hourly	\$20.63	\$27.36	\$37.60	\$49.94	\$63.18
	Yearly	\$42,910	\$56,910	\$78,210	\$103,880	\$131,410
Maryland	Hourly	\$26.61	\$36.29	\$47.20	\$57.60	\$71.24
	Yearly	\$55,350	\$75,490	\$98,180	\$119,800	\$148,190

²⁸ (Major in Exercise Science, 2018)

²⁹ (Summary Report for: 39-9031.00 - Fitness Trainers and Aerobics Instructors, 2018)

Data in O*NET is pulling from a broad category, which may not accurately reflect available positions. Running a job search on indeed.com does result in numerous Wellness Coordinator or Fitness Coordinator jobs with companies or at resorts and spas. These all tend to be at the associate level. When the search was changed to “corporate fitness,” results were more in line with what O*NET displayed; Bachelor’s level jobs that required knowledge in Exercise Science. The salaries, however, are higher than what was coming out as entry level in the field. Posted salaries tended to be in the mid-\$30K range.

Athletic Trainers

Athletic trainers, also known as sports trainers, help amateur and professional athletes prevent injuries, give first aid when an injury occurs during a practice or event, and manage the rehabilitation programs and routines of injured athletes.

Athletic trainers often consult with physicians during all stages of athletic training to ensure that athletes under their care are physically capable of participating in competition. According to the Department of Labor, there are approximately 23,450 athletic trainers employed in the United States³⁰.

Most athletic trainer positions will require graduate school with about 72% of professionals surveyed possessing a Master’s Degree and 25% having acquired a Bachelor’s Degree. Some positions may require a Doctoral level of education³¹.

Athletic trainers usually earn a bachelor's degree from a college or university program in athletic training that is accredited by the Commission on Accreditation of Athletic Training Education³². Students then intern with a certified athletic trainer. Another option is to earn a bachelor's degree or even a master's or professional degree in a related health field, such as osteopathy, and then intern with a certified athletic trainer. The number of hours required for clinical study and the internship phase will vary, depending on the program and the professional organization³⁰.

Nearly all states require athletic trainers to be licensed or registered, which requires certification by the Board of Certification for the athletic trainer. Different membership organizations and their respective certifying bodies have different eligibility requirements. Individuals choose which organization best characterizes their ultimate goal.

The median salary for Athletic Trainers is \$46,060 in Maryland and \$46,630 in the United States³³. More detailed salary information is available in the table below.

State and National Wages

Location	Pay Period	2017		
		Low	Median	High
United States	Hourly	N/A	N/A	N/A
	Yearly	\$30,740	\$46,630	\$69,530
Maryland	Hourly	N/A	N/A	N/A

³⁰ (Sports Trainers, 2018)

³¹ (Summary Report for: 29-9091.00 - Athletic Trainers, 20108)

³² (Commission on Accreditation of Athletic Training Education, 2018)

³³ (CareerOneStop, 2018)

	Yearly	\$32,750	\$46,060	\$66,600
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Athletic Trainers are considered to have a bright outlook for the future with rapid growth projected in the next several years. The chart below shows some projections for increases in employment opportunities in the United States and Maryland³⁴.

State and National Trends

United States	Employment		Percent Change	Job Openings ³⁵
	2016	2026		
Athletic Trainers	27,800	34,100	23%	2,200
Maryland	Employment		Percent Change	Job Openings
	2016	2026		
Athletic Trainers	410	530	+31%	20

Here are the top industries who are employing athletic trainers and the mean annual salaries from May 2015³⁶.

- Colleges, universities, and professional schools: 4,800 jobs, \$47,660
- Offices of other health practitioners: 3,890 jobs, \$43,690
- General medical and surgical hospitals: 3,720 jobs, \$46,600
- Other amusement and recreation industries: 3,150 jobs, \$43,490+
- Elementary and secondary schools: 2,580 jobs, \$55,420

Local Job Opportunities

A search of athletic trainer jobs on indeed.com came up with 39 related postings. One athletic trainer position was posted from Johns Hopkins University. The position is full time with a salary range of \$37,781 -- \$51,950 per year. The posting lists qualifications such as a bachelor's degree in athletic training or related field and successful completion of BOC certification examination. Applicants must be licensed in Maryland, have CPR/First Aid/AED Certification and 2 years of related experience. Preferred qualifications are a Master's Degree in related field³⁷.

An additional posting was for a certified athletic trainer with Towson Sports Medicine. This position does not post a salary, but it does post the requirements: a bachelor's Degree and a certification in the

³⁴ (Sports Trainers, 2018)

³⁵ Job Openings refers to the average annual job openings due to growth and net replacement.

³⁶ (Bureau of Labor and Statistics, 2018)

³⁷ (Johns Hopkins University, 2018)

state of Maryland as a Certified Athletic Trainer, Licensed Athletic Trainer and BLS. It lists that a master’s degree is preferred³⁸.

Exercise Physiologist

“Exercise physiologists use their knowledge and training of exercise science to help patients reach optimum health, mobility, and confidence. They work in clinical settings such as hospitals, nursing homes, and rehabilitation centers. Exercise physiologists may also be employed by sports-related businesses such as health and fitness clubs or athletic training facilities and camps³⁹.” Exercise physiologists typically have a bachelor’s degree in exercise physiology, exercise science or kinesiology. Having a master’s degree will help graduates gain a competitive edge for the best jobs in the field. Additionally, some students may choose to study exercise physiology to establish a solid foundation for further education in physical therapy, medicine, dentistry, pharmacy, or chiropractic study. With the exception of Louisiana, an exercise physiologist is not required to hold a certification or licensure in order to practice. However, the American Society of Exercise Physiologists and the American College of Sports Medicine offer several certifications. Some employers may require their employees to be CPR certified. It is also recommend that exercise physiologist complete in internship before employment⁴⁰.

Employment in the fitness and health industries will continue to grow as exercise is increasingly used to improve health and treat or prevent illness and injury. According to the U.S. Department of Labor, employment for exercise physiologists is projected to grow 13 percent through 2026⁴¹. Although opportunities will be good in the near future, competition will increase for the best positions as more and more people learn about and enter this relatively new and interesting field. Exercise physiologists with master's degrees and certification will have the best employment opportunities.

State and National Trends

United States	Employment		Percent Change	Job Openings ⁴²
	2016	2026		
Exercise Physiologist	15,100	17,100	+13%	2,000
Maryland	Employment		Percent Change	Job Openings
	2016	2026		
Exercise Physiologist	210	220	+4.8%	10

Pay varies according to experience and location. The following

³⁸ (Certified Athletic Trainer- Towson Sports Medicine-Bellona Location- PRN, 2018)

³⁹ (Exercise Physiologists, 2018)

⁴⁰ (Exercise Physiologists, 2018)

⁴¹ (Occupational Outlook Handbook, 2018)

⁴² (Long Term Occupational Projections (2016-2026), 2018)

information was provided by CareerOneStop.⁴³

State and National Wages

Location	Pay Period	2017		
		Low	Median	High
United States	Hourly	\$16.47	\$23.60	\$37.70
	Yearly	\$34,250	\$49,090	\$78,410
Maryland	Hourly	\$15.98	\$23.33	\$40.51
	Yearly	\$33,250	\$48,530	\$84,270

Physical Therapist

A degree in exercise science can be a building block for physical therapists. A physical therapist requires a three-year doctorate degree after completing a four-year undergraduate degree. This education requirement goes into effect in 2020. It is recommended to students with an interest in being accepted to physical therapy doctoral programs to have a long-standing interest in kinesiology since being accepted into a physical therapy school is so competitive⁴⁴. Physical therapists have many options for future employment after graduation including schools, nursing facilities, hospitals, specialized rehab centers and private practices.

Pay varies according to experience and location. The following information was provided by CareerOneStop.⁴⁵

State and National Wages

Location	Pay Period	2017		
		Low	Median	High
United States	Hourly	\$28.40	\$41.76	\$58.97
	Yearly	\$59,080	\$86,850	\$122,650
Maryland	Hourly	\$27.32	\$42.79	\$57.73
	Yearly	\$56,830	\$89,010	\$120,070

State and National Trends

United States	Employment		Percent Change	Job Openings ⁴⁶
	2016	2026		
Physical Therapist	239,800	306,900	+28%	67,100

⁴³ (Wages For Exercise Physiologist, 2018)

⁴⁴ (Chung, 2009)

⁴⁵ (Wages for Physical Therapists in MARYLAND, 2018)

⁴⁶ (Long Term Occupational Projections (2016-2026), 2018)

United States	Employment		Percent Change	Job Openings ⁴⁶
	2016	2026		
Maryland	Employment		Percent Change	Job Openings
	2016	2026		
Physical Therapist	5,070	6,350	+25%	320

D. Reasonableness of Program Duplication:

Although several regional two-year institutions offer an exercise science program, the primary differences between the HCC's EXSC program are as follows:

- HCC's EXSC program requires experiential learning opportunities through required internships.
- HCC's proposed program in an Associate of Science degree. Only two regional two-year programs offer an Associate of Science degree. All other programs are an Associate of Arts degree or an Associate of Applied Sciences.
- HCC's associate degree in exercise science was designed to allow for many career and educational pathways, whereas many regional programs put emphasis or focus on a singular aspect of the discipline. HCC's more generalized program model allows students to go directly into the workforce or continue their if the desired job requires more education.

The following table identifies similar programs and summarizes key differences in curriculum:

Institution	Program Name	Degree	Key Differences
Anne Arundel Community College	Health, Fitness, and Exercise Studies	Associate of Science Program ID: 310501 CIP: 491009	The curriculum ⁴⁷ focuses on health whereas HCC's curriculum focuses on exercise. There is not an internship in the AACC program and the AACC program was not developed to transfer to a four-year institution.
Cecil College	Exercise Sciences	Associate of Science Program ID: 310501 CIP: 491009	The curriculum ⁴⁸ puts emphasis on rehabilitation. The program does not offer an internship.
Chesapeake College	Health, Fitness and Exercise Science	Associate of Arts Program ID: 310599 CIP: 529903	Different degree. The program ⁴⁹ does not offer an internship and prepares students to transfer to a four-year institution and not go directly into the workforce.

⁴⁷ (Anne Arundel Community College, 2018)

⁴⁸ (Cecil College, 2018)

⁴⁹ (Your Time. Your Place. Chesapeake College, 2018)

Institution	Program Name	Degree	Key Differences
Community College of Baltimore County	Applied Exercise Sciences	Associate of Applied Sciences Program ID: 319999 CIP: 529911	AAS degrees are designed to prepare students to enter the workforce and not transfer. The curriculum ⁵⁰ focuses on personal training and fitness specialist only. The program does not offer an internship.

There are several four year institutions in the geographical area that have compatible bachelor programs with the HCC EXSC program. Towson University, Salisbury University, Frostburg State University and University of Maryland Eastern Shore offer bachelor’s degrees in Exercise Science. University of Maryland College Park has a bachelor’s degree in kinesiology. Articulation agreements will be discussed with these institutions upon approval. Having several four year institutions in the area with similar programs will provide students with the opportunity for a smooth transfer.

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

The University of Maryland, Eastern Shore (UMES) is a HBI that has a bachelor degree program in Kinesiology. Articulation agreements could be created between the two institutions to allow HCC EXSC students to have a seamless transfer to UMES. This, in turn, would increase the number students in the Kinesiology program.

F. Relevance to the identity of Historically Black Institutions (HBIs)

The University of Maryland Eastern Shore (UMES) purpose and uniqueness is “grounded in distinctive learning, discovery and engagement opportunities in the arts and sciences, education, technology, engineering, agriculture, business and health professions”⁵¹. If articulation agreements are made with UMES, this would increase the numbers of student that would possibly transfer to UMES which, in turn, would increase learning opportunities in the area of science.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes

Program Development

The EXSC program was developed in accordance with the College’s Curriculum Manual and included assessment of data to support enrollment, consultations with other divisions and an analysis of course transferability to the College’s top transfer institutions. Four new course proposals were created including: EXSC 101 - Introduction to Exercise Science, EXSC 201 - Exercise Assessment and Program Design, EXSC 202 - Fitness Instruction and EXSC 283 - Exercise Science Internship. The EWCE division faculty, the curriculum workgroup, the Vice President of Academic Affairs, the President of the College,

⁵⁰ (Applied Exercise Sciences, Associate of Applied Science, 2018)

⁵¹ (Mission, 2018)

and the Board of Trustees approved the EXSC program. The full time faculty in the health and physical education department will oversee the EXSC program.

Educational Objective

The EXSC curriculum provides a foundation for diverse careers in exercise science, experiential learning through active engagement with the local community, and creates a transfer pathway to a bachelor degree in exercise science or kinesiology.

Program Learning Outcomes (LOs)

Upon completion of the Exercise Science program the student will:

1. Explain the fundamental concepts of exercise science.
2. Demonstrate entry level knowledge and skills necessary for safe and appropriate health screenings and assessment.
3. Design and implement effective exercise prescriptions for various populations.
4. Demonstrate standards of professional practices.
5. Demonstrate the knowledge and skills needed to take a national industry leading certification exam (ACSM, ACE, NSCA, NASM).

Assessment of student program learning outcomes will be performed throughout the core exercise science courses. Formative, summative and authentic assessments will be used. Outcomes are collected and documented using a learning management system-integrated software solution. The learning management system-integrated software solution allows for documentation of individual course learning outcomes as well as program goal achievement. All course learning outcomes are assessed every four years per HCC's recommendations.

General Education Requirements

HCC students must complete a minimum of 60 credits of college-level work to be eligible for the Associate of Science (AS) degree. In accordance with COMAR 13B.06.01.03, of the 60 credits, at least 28-36 credits must fulfill the HCC's General Education core requirements. The distribution of the 28-36 General Education credits must meet the following specifications at HCC:

- 6 credits of Behavioral/ Social Sciences (GB)
- 3 credits of English Composition (GE)
- 6 credits of Arts/ Humanities (GH)
- 7 to 8 credits of Biological/ Physical Laboratory Science (GL/ GS)
- 3 to 4 credits of Mathematics (GM)
- 3 to 9 credits of General Education Electives (GB, GH, GM, GS, GI)

The EXSC program includes 34 credits of General Education courses as follows:

Behavioral/ Social Sciences (GB):6 credits required

- PSY 101 General Psychology (3 credits)
- GB Elective (3 credits)

English Composition (GE): 3 credits required

- ENG 101, English Composition (3 credits)

Arts/ Humanities (GH) – 6 credits required

- CMST 210 Group Communication and Leadership (3 credits)
- GH Elective (3 credits)

Biological/ Physical Laboratory Science (GL/ GS): 7-8 credits required

- BIO 120, General Biology I (4 credits)
- CHEM 111 General Chemistry (4 credits)

Mathematics (GH) – 3-4 credits required

- MATH 216 Introduction to Statistics (4 credits)

General Education Elective (GB, GH, GM, GS, GI): 3 – 9 credits required

- Health 101 Contemporary Health Issues (3 credits)
- BIO 203, Anatomy and Physiology I (4 credits)

The following recommended sequence of course completion demonstrates how General Education requirements will be met and maps the EXSC program learning outcomes.

Course	Credits	General Education Designation or HCC Graduation Requirement	Program LOs
Semester 1			
EXSC 101 Introduction to Exercise Science	3		1,4
ENG 101, English Composition	3	GE	
General Education Elective	3	GB, D ⁵²	
General Education Elective	3	GH	
CMST 210 Group Communication and Leadership	3	GH	
Semester 2			
BIO 120, General Biology I	4	GL	
CHEM 111 General Chemistry	4	GE	
Health 101 Contemporary Health Issues	3	GI	5
EXSC 201 Fitness Assessment and Program Design	3		2,3
Semester 3			
BIO 203, Anatomy and Physiology 1	4	GL	1

⁵² HCC requires students a 3 credit diversity course in order to graduate. Another General Education requirement can meet the diversity credit. By having students complete both requirements at the same time limits time to degree.

EXSC 202 Fitness Instruction	3		2,3,4
General Elective	3		
MATH 216 Introduction to Statistics	4	GM	
PE 229 Advanced Weight Training	1	PE ⁵³	2
Semester 4			
BIO 204 Anatomy and Physiology II	4		1
PSY 101 General Psychology	3	GB	
HLTH 102, EMC, First Aid, and Safety	3		5
General Elective ⁵⁴	3		
EXSC 283 Exercise Science Internship	3		4,5
Total Credits	60	38	

List of Courses

BIO 120, General Biology I (4 credits)

General Education: Biological/Physical Laboratory Science (GL)

An introduction to biology (cellular/molecular) for the science major. Basic biological principles common to plants and animals, cell structure and function, biochemical processes, heredity, cell reproduction, and gene expression are presented. Laboratory emphasizes open-ended experimental methods of inquiry. The course meets for 45 lecture/discussion hours and 45 laboratory hours per semester. Prerequisite: high school chemistry or CHEM 010. Course fee.

Upon satisfactory completion of this course, the student will be able to:

1. Describe the basic anatomical structures and physiological functions of both plant and animal cells.
2. Explain the four major macromolecules, their building blocks, and functions in biochemical processes of the cell.
3. Compare and contrast the basic interrelationships between living cells and their internal and external environments.
4. Describe the processes of DNA replication, protein expression, and gene regulation in prokaryotes and eukaryotes.
5. Relate the processes involved in cell division with those of inheritance (genetics).
6. Employ basic laboratory techniques during laboratory investigations to gain a better understanding of the interrelationships of living organisms and the biosphere.
7. Identify and locate appropriate types of information for review, evaluate the information, and use the information effectively, ethically, and legally.
8. Recognize ethical issues and practice professional standards common to biologists.

⁵³ Harford Community College requires students to earn at least 1 credit in Physical Education for graduation from all degree programs.

⁵⁴ Students will be advised to select a course that satisfies their transfer institution's program requirement.

BIO 203, Anatomy and Physiology 1 (4 credits)

General Education: Biological/Physical Laboratory Science (GL)

Program Goals: 1

This course provides a comprehensive study of the structure and function of the human body. This course focuses on the histology, gross anatomy and physiology of the integumentary, skeletal, muscular, nervous and endocrine systems. Additional topics include special senses and human tissues. Emphasis is placed on the anatomy of the organ systems and the maintenance of homeostasis for optimal functioning of the human organism. This course includes a total of 45 hours of lecture and 45 hours of laboratory. Prerequisite: BIO 099 or BIO 119 or BIO 120 with permission or qualifying score on Biology for Allied Health Assessment Test. Course fee.

Upon satisfactory completion of this course, the student will be able to:

1. Recall/correctly use anatomical terminology and explain physiological processes.
2. Compare/contrast the gross and microscopic anatomy of the organs of the integumentary, skeletal, muscular, nervous, and endocrine systems.
3. Visually identify/recall proper spelling for major markings on bones, major skeletal muscles, nervous, and endocrine structures.
4. Describe/summarize neurophysiology and the anatomy and functions of the brain, its subdivisions, the spinal cord, special senses.
5. List, explain the function, and recognize disorders of major hormones, neurotransmitters, and enzymes of the skeletal, muscular, nervous, and endocrine systems.
6. Describe/evaluate the physiology and maintenance of homeostasis for major systems studied; apply that information in clinical examples via case studies.
7. Use technology to investigate, experiment with anatomy and physiology of the human body
8. Procure, evaluate, and summarize information; apply that information to anatomy and physiology of human body.

BIO 204, Anatomy and Physiology 2 (4 credits)

General Education: Biological/Physical Laboratory Science (GL)

Program Goal: 1

This course provides a comprehensive study of the structure and function of the human body. The course focuses on the histology, gross anatomy and physiology of the cardiovascular, immune, respiratory, digestive, urinary and reproductive systems. It also provides students with an understanding of the crucial functions of energetics, thermoregulations, fluid, electrolyte and acid-base balance. Emphasis is placed on the physiology of the organ systems and the maintenance of homeostasis for optimal functioning of the human organism. The course includes a total of 45 hours of lecture and 45 hours of laboratory time. Prerequisite: grade of C or better in BIO 103 or BIO 203. Course fee.

Upon satisfactory completion of this course, the student will be able to:

1. Recall/express anatomical terminology and physiological processes.
2. Recall, explain the function, recognize disorders of the major hormones, neurotransmitters, and enzymes and their functioning in the cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems & metabolic processes.

3. Visually identify, describe the gross/microscopic anatomy of the organs, structures of systems listed above.
4. Describe/evaluate the physiology and maintenance of homeostasis for each of the major systems; apply that information.
5. Describe/summarize the chemical/mechanical mechanisms used to maintain homeostasis in: heart rate, hemodynamics, circulation, respiration, energetics, body temperature, fluid & electrolyte balance, acid-base balance, and body fluid pH.
6. Use technology to investigate and experiment.
7. Procure, evaluate and summarize information and apply that information to the anatomy and/or physiology of the human body.

CHEM 111, General Chemistry I (4 Credits)

General Education: *General Education: Biological/Physical Laboratory Science (GL)*

An introduction for students requiring a full year of chemistry. The structure of matter and its behavior from a chemical perspective is presented. Topics include atomic and molecular structure, chemical bonding, stoichiometry, periodic relationships, principles of chemical reactions, and properties of state and solutions. The laboratory illustrates the principles discussed in lecture. Course includes 45 hours of lecture and 45 hours of laboratory per semester. Prerequisite: two units of high school algebra or MATH 017 or Math 023 or Math 026. In addition, it is recommended that students have completed one year of high school chemistry or CHEM 010. Course fee.

Upon satisfactory completion of this course, the student will be able to:

1. Describe atomic theory and differentiate between elements, compounds and mixtures. Explain the law of conservation of mass and the law of definite composition.
2. Utilize stoichiometry to obtain information from and make predictions based on chemical formulas and chemical reactions.
3. Describe atomic and electronic structure of elements as well as describe the structure of the period table and periodic trends.
4. Differentiate the different types of chemical bonds and describe the nature of each.
5. Describe the nature of the gaseous state. Explain the ideal gas law and use it in quantitative calculations.
6. Explain the fundamental differences between the properties of liquids and solids. Interpret a phase diagram and describe the phenomena of phase changes.
7. Describe the properties of a solution and quantitatively describe them.
8. Describe the greenhouse effect, the ozone effect and photochemical smog.

CMST 210, Group Communication and Leadership (3 Credits)

General Education: Arts/Humanities (GH)

This course examines issues of physical and virtual teamwork. The course challenges students' understanding of their leadership competence and conflict resolution skills. Students explore the relationships among members, the processes they use, and the purposes for which they are together. Prerequisite: ENG 012, ENG 018, ENG 060 or a qualifying score on the writing assessment.

Upon satisfactory completion of this course, the student will be able to:

1. Examine theory and research in small group/team communication as it relates to the enhancement of communication skills.
2. Explore the functions of communication in small group settings.
3. Examine and assess participation in groups and teams, and experiment and improve upon those behaviors.
4. Apply techniques for managing conflict and reaching consensus in small groups.
5. Manage effective group leadership and participation.

ENG 101, English Composition (3 credits)

General Education: English Composition (GE)

This course is designed to develop mature writing skills in the essay form, including the documented essay. Through writing a series of essays in a variety of modes, such as argumentative essay, the process analysis, the research paper, and the summary analysis, students achieve proficiency in presenting and supporting their own ideas and incorporating the ideas of others into their essays. Prerequisites: ENG 012, ENG 018, ENG 060 or a qualifying score on the writing assessment.

Upon satisfactory completion of this course, the student will be able to:

1. Write unified papers. This objective involves the development of a purposeful organization pattern based on a clearly stated, well-focused, and worthwhile thesis statement, which is firmly adhered to in the essay.
2. Write coherent papers. This skill involves providing transitions between ideas and in other ways showing relationships between parts of the essay.
3. Provide support. This objective involves giving sufficient specific evidence to convince the reader of the validity of the thesis.
4. Communicate rationally. This objective involves the use of basic principles of logic.
5. Construct sentences that are grammatically and mechanically correct.
6. Use language accurately and concisely.
7. Collect, use, and document evidence from sources other than personal experience, including written sources.

EXSC 101 Introduction to Exercise Science (3 credits)

Program Goals: 1,4,5

Exercise Science is the study of human movement performed to maintain or improve physical fitness. Topics include professionalism, certifications and licensure as well as career opportunities. This course also discusses the various sub-disciplines within exercise science.

Upon satisfactory completion of this course, the student will be able to:

1. Identify fundamental concepts related to exercise science.
2. Discuss the various sub-disciplines of exercise science.
3. Examine career opportunities in the field of exercise science.
4. Describe sources of professional information, professional organizations, certifications and legal issues within exercise science.

EXSC 201 Fitness Assessment and Program Design (3 credits)

Program Goals: 2,3

This course is an introduction to the essential principles and skills of exercise testing and prescription. This course provides the student with the knowledge to properly conduct various aspects of exercise testing such as the assessment of risk stratification, cardiorespiratory endurance, muscular strength and endurance, body composition and flexibility. Students will be expected to participate in these tests as well.

Upon satisfactory completion of this course, the student will be able to:

1. Identify the importance of physical activity to the health and well-being of both a healthy and a diseased population.
2. Conduct a preliminary health screening to properly identify further exercise and exercise testing recommendations.
3. Perform various assessments of cardiorespiratory endurance, muscular strength and endurance, body composition, and flexibility on healthy and, when appropriate, diseased individuals.
4. Calculate and interpret the results from various exercise tests/assessments
5. Utilize information from the preliminary health screening and the various assessments of physical fitness to prescribe an exercise program
6. Demonstrate safe, effective use of cardiovascular, resistance, and specialty training equipment for healthy individuals as well as various clinical conditions.

EXSC 202 Fitness Instruction (3 Credits)

Program Goals: 2,3,4

This course will instruct students on how to develop, assess, modify, and lead various group-led exercise activities for various populations in multiple settings. Students will demonstrate safety, communication, leadership, and motivation techniques by participating in various group exercise classes.

Upon satisfactory completion of this course, the student will be able to:

1. Demonstrate leadership responsibilities as a fitness instructors and modification of various exercises for different group-led exercise programs among diverse populations.
2. Analyze the proper order of components incorporated into an exercise session, the choreography, cues for different group fitness, and proper basic precautions for maintaining a safe environment while reflecting on strengths and weaknesses of teaching a class through reflective writing.
3. Explain high-risk exercise movements, proper and improper techniques, potential concerns, stretches, risks of cardiovascular conditioning equipment and resistive equipment, various basic resistance exercises and advantages and disadvantages for developing exercise programs.
4. Apply knowledge of exercise physiology, muscular strength and conditioning, and anatomy by creating programs related to exercise principles.

EXSC 283 Exercise Science Internship (3 credits)

Program Goals: 4,5

The internship is designed to provide students with experiences typical of those encountered on a job in the exercise science field. The internship requires that the student spend 135 hours in an exercise science setting under the supervision of a site manager and a faculty member. Prerequisite: Permission of the instructor is required.

Upon satisfactory completion of this course, the student will be able to:

1. Analyze components of the exercise science in practical experience.
2. Gain experience in the exercise science field.
3. Demonstrate skills requirements in the exercise science field.

HLTH 101, Contemporary Health Issues (3 credits)

General Education: Interdisciplinary and Emerging Issues (GI)

Program Goal: 5

This course presents an overview of current health issues and problems facing our society. Topics include emergency care and CPR; prevention, recognition, and treatment of chronic and communicable disease; aging, marriage, and family lifestyles and choices; recognition and treatment of mental disorders; and stress management.

Upon satisfactory completion of this course, the student will be able to:

1. Identify the physical, emotional, social, intellectual, spiritual and environmental factors which influence one's health.
2. Distinguish between behaviors which foster and those that hinder well-being.
3. Explain the etiology and treatment options for common chronic and communicable diseases.
4. Develop a personal plan for optimal health.
5. Evaluate the credibility of sources of health information.
6. Apply decision making skills to address issues of community and environmental health in a diverse society.

HLTH 102, EMC, First Aid, and Safety (3 Credits)

Program Goals: 5

This course prepares students to meet the certification requirements from a nationally recognized organization. Topics include first aid, emergency medical care, Cardiopulmonary resuscitation (CPR), Automated External Defibrillator (AED) training, safety awareness and accident triage. Course fee.

Upon satisfactory completion of this course, the student will be able to:

1. Demonstrate proper basic life support for foreign body airway obstruction, rescue breathing, and CPR/AED for infants, children, and adults.
2. Explain the risks, causes, and treatments for many common accidents and injuries.
3. Identify the steps of and conduct a primary and secondary survey of an injury.
4. Identify the signs of shock and demonstrate the correct treatments.
5. Explain the structure and functions of the skeletal and muscular system as they pertain to first aid.
6. Explain the legal implications of assuming the responsibility to care for an injured person.

7. Demonstrate two, three, and four person carries.
8. Demonstrate proper bandaging and splinting techniques.
9. Receive a passing score on a nationally recognized certification test in basic emergency care.

MATH 216, Introduction to Statistics (4 credits)

General Education: Mathematics (GM)

This course provides the student with the fundamental concepts and methods of statistical analysis. Course topics: measures of central tendency and variation, graphical representation of data, least squares regression, correlation, probability distributions, sampling techniques, parameter estimation, and hypothesis testing. Technology and statistical literacy will be integrated throughout the course. Prerequisite: qualifying score on the math assessment or MATH 023, MATH 026 or MATH 027.

Upon satisfactory completion of this course, the student will be able to:

1. Define statistical terminologies; demonstrate ability to think critically about data described in scientific and media reports.
2. Use technology to assist in the solution of both abstract and contextual problems. These technologies will include spreadsheet problems, graphing and scientific calculators, and other computational aids.
3. Perform data organization/analysis to produce descriptive statistics (pictorial/numerical forms).
4. Explain relationship between two variables; compute correlation and construct the equation of the least-squares regression line; utilize the line for predictions.
5. Perform elementary probability calculations and solve problems by applying appropriate standard probability distributions, including discrete, binomial, uniform and normal distributions.
6. Model the sampling distribution of proportions and means, including verifying the necessary conditions, e.g. the Central Limit Theorem for means.
7. Solve problems involving parameter estimation, perform hypothesis testing for one and two population means and proportions.
8. Solve statistical inference problems in at least one of the following areas: examining the strength of a linear relationship between two variables and identifying outliers; solving problems involving one-way analysis of variance; and performing analyses using the chi-square distribution (such as goodness-of-fit test and test for independence).

PSY 101, General Psychology (3 credits)

General Education: Behavioral/ Social Sciences (GH)

A broad spectrum of research and theoretical concepts are presented to provide a balanced understanding of human behavior. Topics include the biological basis of behavior, human development, personality, health and wellness, learning and memory, social diversity, abnormal behavior and therapy. Prerequisites: a qualifying score on the English assessment or ENG 012 or ENG 018 or ENG 101.

Upon satisfactory completion of this course, the student will be able to:

1. Review and analyze major theories, concepts and topics of interest to psychologists and students.
2. Critically evaluate research strategies and findings of psychologists in their study of behavior and mental processes.

3. Examine human behavior to gain a better understanding of oneself and others.
4. Assess psychological findings in order to increase individual awareness and understanding of relevant social and contextual concerns.
5. Apply communication skills, both written and oral, in appraising and presenting psychological issues.
6. Compare cross-cultural differences and their influence on human interaction.

PE 229 Advanced Weight Training (1 Credit)

Program Goal: 2

This course presents principles of advanced weight training, with an emphasis on proper form and technique. Students are required to physically participate in a weight training program designed to increase muscular strength or muscular endurance. Previous weight lifting experience is strongly advised. Course Fee.

Upon satisfactory completion of this course, the student will be able to:

1. Perform advanced weight training exercises using proper technique.
2. Define the components of physical fitness.
3. Describe how weight training improves muscular strength or muscular endurance.
4. Explain different approaches to weight training routines.
5. Document weight training progress.
6. Discuss nutritional considerations specific to weight training.

Assurance and Evidence

Following a 2017 comprehensive review of business processes, HCC has begun implementation of projects designed to enhance the student experience. Improvements to workflow will provide students with clear, complete, and timely information. For example, the adoption of catalog and curriculum software that integrates with both the current Enterprise Resource Planning (ERP) solution and the degree-auditing and tracking tool will provide students with transparent, real time information regarding curriculum, course and degree requirements.

HCC regards faculty interactions with the student body as paramount to academic success. All full time faculty maintain at least five reasonably distributed office hours per week when the faculty member's courses are in session. Office hours are posted in the syllabus, on office doors and in the learning management system. Additionally, each EXSC student will be assigned a faculty advisor to develop goals and objectives for the purpose of internship placement.

With technology quickly becoming a primary means with which people communicate and receive information, the EWCE Division firmly believes that students will benefit from skill proficiency well beyond college completion. EWCE faculty utilize technology navigation concurrent to student usage during face-to-face course instruction, generate video tutorials for online course delivery, and serve as tech support through virtual and onsite assistance. This technology meets the educational needs of the college's diverse student population and effectively address those skill disparities that might otherwise pose a barrier to learning.

In the spirit of eradicating issues of cost, quality, and access, the EWCE Division believes Bring Your Own Device (BYOD) models perpetuate technology inequity and have the propensity to alienate those students who simply cannot afford devices that are capable of the required functionality. For this reason, all face-to-face and hybrid health, physical education and ESXC courses have adopted the shared device model and have dedicated access to 40 iPads, a laptop classroom, and a variety of “wearable” biometric recording devices. Asset replacement and upgrades costs are factored into the budget on an on-going basis.

All HCC courses are required to use the LMS to provide links to academic support services, financial aid resources, and college policies regarding tuition costs and payment regardless of instructional delivery mode.

The Office of Communications is committed to providing transparent and accurate advertising, recruiting, and admissions materials through ongoing process. When a new degree program is approved, it will be advertised in several ways. A headline banner will be put on the official HCC website and listed under the degree programs offered at HCC. An article will be written about the new program and a news release will be put in the local papers, placed in the News and Whoo’s⁵⁵ as well as the *Harford Highlights*.⁵⁶ Other advertising includes social media communications as well as brochures given out at open houses both at HCC and local high schools.

H. Adequacy of Articulation

The EXSC degree program is designed to transfer to comparable bachelor degree programs offered at other institutions. The curriculum for the EXSC program was created to allow for flexibility when it comes to transfer and, therefore, does not make it more difficult for a student to transfer to one school over another. When the program is approved HCC will be seeking articulation agreements with Towson University, Salisbury University, Frostburg State University, University of Maryland Eastern Shore and University of Maryland College Park within the following four years. HCC currently has an articulation agreement with Towson University in General Studies A.A. - Biology concentration to B.S. Exercise Science⁵⁷.

I. Adequacy of Faculty Resources

Harford Community College (HCC) employs highly qualified faculty in all disciplines. Additionally, through the Center for Excellence in Teaching and Learning (CETL), HCC offers comprehensive professional development and training for all who are engaged in the teaching and learning process at HCC. CETL is intentionally designed to be both a digital and physical hub for innovation, collaboration, and learning transformation through a variety of events and resources in order to:

- Create faculty teaching and learning communities of practice;
- Celebrate innovation in instruction and scholarship;
- Offer on-going basic and advanced learning management system training;

⁵⁵ The News and Whoo’s is a weekly newsletter that goes to all faculty and staff at HCC

⁵⁶ Harford Highlights is a email that goes out to the local community to highlight things happening at HCC.

⁵⁷ A copy of the articulation agreement with Towson University in General Studies A.A. - Biology concentration to B.S. Exercise Science can be found in Appendix B.

- Provide resources, facilities and technology to foster experimentation; and
- Offer opportunities for faculty to gain additional knowledge and hone skills related to technology and pedagogy.

All distance learning courses are reviewed through a collaborative internal review process based upon standards developed at the College through the shared governance process and approved by Faculty Council. Faculty are required to employ evidence-based practices in course design⁵⁸.

Full-time and adjunct exercise science faculty have graduate degrees in Human Performance, Exercise Physiology, Health Education and/or the Health Sciences and professional experiences in a variety of settings including personal training for various populations, fitness center management, health and physical education at the K-12 level, athletic training, group exercise instruction, and cooperate wellness management.

Faculty

The following identifies faculty engaged in this program:

⁵⁸ A copy of *Best Practices for HCC Online Courses* is attached

<i>Name</i>	Title	Credentials	Status	Courses Taught
<i>Jessica Adams</i>	Assistant Professor of Mathematics	M.S., Johns Hopkins University M.S., Notre Dame of MD University	Full- time	MATH 216 - Introduction to Statistics
<i>Edward Augustitus</i>	Assistant Professor of Health and Physical Education	M.S., Frostburg State University	Full- time	EXSC 201 Program Assessment and Design EXSC 283 Exercise Science Internship HLTH 101 – Contemporary Health Issues HLTH 102 - EMC, First Aid, and Safety PE 229 – Advanced weight training
<i>Manolya Bayar</i>	Associate Professor of Psychology and Sociology	M.A., Fordham University M.A., City University of New York, City College	Full- time	PSY 101- General Psychology
<i>John Bray</i>	Assistant Professor of Mathematics	M.S., Pennsylvania State University	Full- time	MATH 216 - Introduction to Statistics
<i>Michele Catterton</i>	Assistant Professor of Mathematics	M.S., McDaniel College	Full- time	MATH 216 - Introduction to Statistics
<i>John Davis</i>	Instructor of health and physical education	M.S., Eastern Michigan University	Adjunct	PE 229 – Advanced Strength Training
<i>Deborah Dorsey</i>	Director for Education, Wellness, and Community Engagement, instructor	M.S., Louisiana State University	Full – time, adjunct	HLTH 101 – Contemporary Health Issues
<i>Thomas L. Guinivan</i>	Assistant Professor of Chemistry	M.S., US Army War College M.S., Drexel University	Full- time	CHEM 111 – General Chemistry
<i>Steven Howard</i>	Instructor of Physical Education	M.S., Towson University	Adjunct	PE 229 – Advanced Strength Training

<i>Linda M. Heil</i>	Associate Professor of Communication Studies	M.S., Towson University	Full- time	CMST 210 – Group Communication and Leadership
<i>Steven Iwanowski</i>	Assistant Professor of Chemistry	M.S., University of Maryland, College Park	Full- time	CHEM 111 – General Chemistry
<i>Chris Jones</i>	Professor of Mathematics	M.S., Towson University	Full- time	MATH 216 - Introduction to Statistics
<i>Cynthia Kelley</i>	Assistant Professor of Health and Physical Education	M.S., Frostburg State University	Full- time	HLTH 101 – Contemporary Health Issues EXSC 101 – Introduction to Exercise Science EXSC 283 – Exercise Science Internship PE 229 – Advanced weight training
<i>Jaclyn Madden</i>	Assistant Professor of Biology	M.S., Johns Hopkins University	Full- time	BIO 120- General Biology I
<i>Dorothy Miller</i>	Professor of English	Ed.D., Columbia University	Full- time	ENG 101- English Composition
<i>Susan Muaddi Darraj</i>	Associate Professor of English	M.A., Rutgers State University of New Jersey	Full- time	ENG 101- English Composition
<i>Carol Mueller</i>	Assistant Professor of Mathematics	Ph.D., University Arkansas Fayetteville	Full- time	MATH 216 - Introduction to Statistics
<i>Wendy Rappazzo</i>	Professor of Biology	M.S., Towson University M.S., University of Delaware	Full- time	BIO 120 – General Biology I BIO 203 - Anatomy and Physiology I BIO 204 - Anatomy and Physiology 2
<i>Ray Richardson</i>	Assistant Professor of Psychology	M.Ed., Johns Hopkins University	Full- time	PSY 101- General Psychology
<i>Regina J. Roof-Ray</i>	Assistant Professor of Psychology	M.Ed., Millersville University of Pennsylvania	Full- time	PSY 101- General Psychology

<i>Scott Schaeffer</i>	Professor of Biology	D.C., Palmer School of Chiropractic	Full- time	BIO 203 - Anatomy and Physiology I BIO 204 - Anatomy and Physiology 2
<i>Timothy Schneider</i>	Student Development Specialist, Advising, Career, and Transfer Services, Health and physical education instructor	M.Ed., Goucher College	Full- time, adjunct	HLTH 101 – Contemporary Health Issues PE 229 – Advanced weight training
<i>Stephen R. Seidel</i>	Associate Professor of Chemistry	Ph.D., University of Utah	Full- time	CHEM 111 – General Chemistry
<i>Terry Surasky</i>	Assistant Professor of Mathematics	M.Ed., Loyola University Maryland	Full- time	MATH 216 - Introduction to Statistics
<i>Parita Vithlani</i>	Assistant Professor of Psychology	M.A., University of North Carolina, Greensboro	Full- time	PSY 101- General Psychology
<i>Scott West</i>	Assistant Professor of English	M.A., Morgan State University M.F.A., University of Baltimore	Full- time	ENG 101- English Composition
<i>Sean Wright</i>	Fitness Center Manager, health and physical education instructor	M.S., Towson University	Full- time, adjunct	EXSC 202 Fitness Instruction HLTH 101 – Contemporary Health Issues PE 229 – Advanced weight training

J. Adequacy of Library Resources

The HCC Library is a 25,734 square foot facility that is centrally located on campus. It is open seven days per week for student access. The library's website provides 24-hour free access to the catalog, databases, subject guides, tutorials and other resources. Borrowing privileges are available for all students, as well as county residents 18 years or older. The library focuses its collection on a mixture of print, electronic, and video resources to meet the informational and curricular needs of the HCC

community. The Library has a large collection of print and electronic books, many of which will support the courses for the program. Students have access to full-text journal, magazine and newspaper articles through the College's subscription databases. Streaming video collections are available through two databases; Films on Demand and Alexander Street Press. Students have access to unlimited resources through the Inter-Library Loan Service, which can deliver titles from almost any academic library in the country.

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment

Physical resources at HCC offer sufficient space and learning technology to support education. The 352-acre campus has a physical plant including a performing arts center, an observatory, a 3,000-seat arena and athletic center and eight classroom buildings.

Students enrolled in the program have access to the HCC Learning Center for tutoring services in math, science, writing, study skills and test taking skills. Additionally, the Test and Assessment Center, Academic Advising and Transfer Services, and Career Services are all resources of the college that may be utilized episodically for individual or groups of students.

The Susquehanna Center (SC) underwent a major renovation in 2013 and now is home to a state-of-the-art fitness center, pool, three multipurpose rooms, one standard classroom, and one computer classroom. There is enough room space to host the increased number of classes which could take place in a classroom, pool, fitness center or multipurpose room. In an on-going mission to accommodate all learners and support existing and emerging technological pedagogies, SC spaces are configured to support wireless device projection capability, feature self-service health and fitness kiosks, and adaptive exercise equipment. EXSC courses held in the SC have access to 40 iPad tablets, wearable technology, GPS tracking devices, and a health and fitness assessment lab. Each full time faculty member has their own office and adjunct health and physical education faculty have access to an adjunct office. The current physical facilities, infrastructure and instructional equipment are more than adequate to initiate the Exercise Science program.

All faculty and credit-earning students are provided with an institutional e-mail account that integrates with the learning management system. Open-access, comprehensive student support for the learning management system is provided and includes "how to" videos and print tutorials, an eLearning Help Desk, links to student services, and tips for success in an online learning environment. Faculty are assigned an eLearning point-of-contact for technical support, a learning management system "troubleshoot" guide, and access to a Help Desk dedicated line.

Supportive statement by the President

It is the position of Dr. Dianna Phillips, President of Harford Community College, that existing library resources, physical facilities, infrastructure and instructional equipment will more than adequately support the Exercise Science program. **Cindy Kelley is meeting with Dr. Phillips on September 28th for confirmation.**

L. Adequacy of Financial Resources with Documentation

TABLE 1: Resources

Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	0	0	0	0	0
2. Tuition/Fee Revenue (c + g below)	\$159,144	\$233,748	\$256,968	\$280,962	\$294,894
a. Number of F/T Students	34	50	55	60	63
b. Annual Tuition/Fee Rate ⁵⁹	\$4644	\$4644	\$4644	\$4644	\$4644
c. Total F/T Revenue (a x b)	\$157,896	\$232,200	\$255,420	\$278,640	\$292,572
d. Number of P/T Students ⁶⁰	2	2	2	3	3
e. Credit Hour Rate	\$129	\$129	\$129	\$129	\$129
f. Annual Credit Hour Rate ⁶¹	6	6	6	6	6
g. Total P/T Revenue (d x e x f)	\$1548	\$1548	\$1548	\$2322	\$2322
3. Grants, Contracts & Other External Sources	\$0	\$0	\$0	\$0	\$0
4. Other Sources Consolidated Service Fee	\$0	\$0	\$0	\$0	\$0
TOTAL (Add 1 – 4)	\$159,144	\$233,748	\$256,968	\$280,962	\$294,894

TABLE 2: Expenditures

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	\$69,119	\$70,119	\$71,139	\$72,179	\$73,240

⁵⁹ \$129/credit x 30 credits=\$3,870 + \$25.80 course fee per credit x 30 credits= \$774; \$3870 + \$774 = \$4644

⁶⁰ The number of part-time students varies from year to year. Majority of students are part-time. In FY15 and FY 16, HCC averages 1956 full time students and 5771 part-time students. Although most students will be full time, there will probably be a couple students whole are going to back to school part-time.

⁶¹ Numbers are based on the average part-time student taking 6 credits a semester.

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
a. # FTE ⁶²	1	1	1	1	1
b. Total Salary ⁶³	\$50,000	\$51,000	\$52,020	\$53,060	\$54,121
c. Total Benefits ⁶⁴	\$19,119	\$19,119	\$19,119	\$19,119	\$19,119
2. Admin. Staff (b + c below)	\$0	\$0	\$0	\$0	\$0
a. # FTE ⁶⁵	0	0	0	0	0
b. Total Salary	\$0	\$0	\$0	\$0	\$0
c. Total Benefits	\$0	\$0	\$0	\$0	\$0
3. Support Staff (b + c below)	0	0	0	0	0
a. # FTE ⁶⁶	0	0	0	0	0
b. Total Salary	0	0	0	0	0
c. Total Benefits	\$0	\$0	\$0	\$0	\$0
4. Equipment ⁶⁷	\$1000	\$1000	\$1000	\$1000	\$1000
5. Library ⁶⁸	\$0	\$0	\$0	\$0	\$0
6. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
7. Other Expenses ⁶⁹	\$0	\$0	\$0	\$0	\$0
TOTAL (Add 1 – 7)	\$70,119	\$71,119	\$71,139	\$73,179	\$74,240

⁶² The expenditures listed reflect the number of FT Faculty needed to meet the program's 27 credits of HLTH. FT Faculty at Harford Community College are required to teach 30 credit hours per academic year. CHP will be implemented with existing faculty resources.

⁶³ Base salary was set on an assistant professor salary slightly about the minimum salary. Salaries are forecasted to increase at 2% each year.

⁶⁴ The benefits include family medical insurance, family dental insurance, family vision insurance, long term disability and life insurance. Most employees at HCC have family insurance policies so that was the rate factored in. HCC pays 85% of the premium for medical, dental and vision.

⁶⁵ CHP will be implemented with existing administrative staff resources.

⁶⁶ CHP will be implemented with existing support staff resources.

⁶⁷ Equipment is budgeted in the operating budget on an ongoing basis.

⁶⁸ Library resources are budgeted in the operating budget on an ongoing basis.

⁶⁹ Expenses such as professional development, travel, memberships, office supplies, communications, data processing, and equipment maintenance are budgeted in the operating budget on an ongoing basis.

Narrative for Expenditures

Faculty

One new full-time faculty member will be needed to teach the increase load of courses and the new courses being offered.

Administrative Staff

The new EXSC program will not require an additional full-time administrative staff. The EXSC program will become part of the Education, Wellness and Community Engagement (EWCE) division. The dean of EWCE will assume administrative responsibilities for the program.

Support Staff

The new EXSC program will not require any additional support staff. The EXSC program will become part of the Education, Wellness and Community Engagement (EWCE) division. The current support staff for the EWCE division will assume the responsibilities for the program.

Equipment

The EXSC program will request a \$1000 each year for the program. This money will be used to purchase new innovative equipment so the students are prepared and knowledgeable about the most current trends in fitness.

Library

The library currently has adequate holdings and access to current databases to support the program.

New or Renovated Space

The EXSC program will not require new or renovated space. Existing classroom, lab and gymnasium space is sufficient to support the new program.

Other Expenses

The EXSC program will not require any expenses other than those listed in the table.

Total

The total amount of money needed to start the EXSC program is \$70,119 for the first year, gradually increasing to \$74,240 by year five.

M. Adequacy of Provisions for Evaluation of Program

Faculty are evaluated annually by the division dean using the following core components: instruction observations, syllabus, final examinations, assessment instruments or strategies used to evaluate course objectives and academic outcomes, data reports and written critiques of student surveys of instruction, participation records of college assignments, professional development activities, and college and community service activities.

HCC has a systematic plan for evaluation of all degree programs and courses that will be applied to the EXSC program and supports the review of curriculum as a significant component of an overall educational effectiveness plan. Program reviews lead to program and course improvements that are based on sustained information gathering and analysis and provide insight for needed resources and ensure superior educational programs that meet student and community needs. Program reviews assess how well the program has achieved its objectives and suggests potential approaches to enhance this effort and address and fulfill accreditation requirements as prescribed by Middle States.

The program evaluation process includes faculty and staff within and outside of the program, students, advisory board members, representatives from resource areas in the college, and other communities of interest. This clearly defined program review process provides a consistent framework for evaluating a program's educational effectiveness and includes the use of a comprehensive data management system to systematically collect and report student learning outcome assessments and collaboration with the Office of Institutional Research, Planning, and Effectiveness for data regarding student retention and completion, faculty and student satisfaction, and program cost-effectiveness. All programs and their options/tracks, including A.A.S. (career), certificate, A.A. /A.S. (transfer) degree programs, and programs such as General Education, Information Literacy and Distance Learning are evaluated every three to five years on a planned cycle.

N. Consistency with the State's Minority Student Achievement Goals

HCC has a history of promoting diversity and creating an environment that is open and inclusive for students, visitors, and employees. HCC embraces differences, respects intellectual and academic freedom, promotes critical discourse, and encourages socio-cultural and global awareness.

HCC has developed strategies to address the eradication of the attainment gap including implementation of the My College Success Network (MCSN) and Soar2Success (S2S). Established in July 2014, these programs are a network of services, events, staff and faculty geared toward empowering and supporting African American students.

In 2018, HCC joined Achieving the Dream (ATD), a network dedicated to improving student success, with a particular focus on academic goal attainment, personal growth, and economic opportunity for low-income students and students of color.

O. Relationship to Low Productivity Programs Identified by the Commission:

This proposed program is not directly related to an identified low productivity program.

P. Adequacy of Distance Education Programs

HCC is an approved institution of the National Council for State Authorization Reciprocity Agreement (NC-SARA). As a NC-SARA institution, HCC is approved to offer distance learning courses to students who reside in other NC-SARA approved states.

Please see HCC's [Out-of-State Online Disclaimer](#) for more information.

While this program is not being proposed as an online program, HCC does comply with C-RAC guidelines for the Evaluation of Distance Education. HCC's eLearning Department and the Distance Learning Committee (DLC) ensure online learning offered by HCC aligns with the college's mission to provide accessible, innovative, and learner-centered education as a means to promote individual goal attainment, as well as career and workforce development. Both the DLC and eLearning have worked together to develop a formal Quality Matters review for courses as well as an internal review process for all new and existing online classes at HCC to ensure a high quality and rigorous educational experience for all online students.

Blackboard is used as HCC's learning management system (LMS). All full and part-time faculty are provided Blackboard course sites for each of their courses and are required to complete Blackboard basic training or demonstrate competency through an internally developed "Blackboard Veterans" quiz. In addition to the required training, course syllabi, contact information, and college closing information must be included on all course sites. To further facilitate student success in online learning environments, the DLC developed and implemented common nomenclatures for online course menus to standardize terminology used in courses across campus. An "Online Readiness Check" was also developed as a tool to assess the readiness of students interested in enrolling in online courses.

eLearning also provides professional development training that focuses on enhancing online instruction for all faculty throughout the year. Workshops and training sessions range in level and content in order to adequately provide faculty with relevant information and experiences, as well as facilitate continual growth in online instruction.

Appendix A: Best Practices for HCC Online Courses

Faculty Presence

Faculty should have an active presence that encourages student involvement in the online course environment. Courses that adhere to this practice will typically include several of the following:

- Expectations of availability and turn-around time are clear
- There is evidence that instructors will regularly engage with students in various course activities.
- Faculty intends to provide frequent and substantial feedback
- A personable faculty introduction is included
- A welcome is clearly visible upon first logging into the course

Start-Up Information & Navigation

Course navigation guidance, including start-up information, is readily available. The course is well organized and easy to navigate. Courses that adhere to this practice will typically include several of the following:

- A location, clearly evident upon logging into the course, labeled “start here,” includes information the student should view prior to starting the course selected by the instructor such as welcome letter, syllabus, instructor information, student expectations/tips for success, etc.
- The syllabus is complete and easy to access
- Navigation is clear, simple, and user friendly
- The course schedule is summarized in one location
- Organization and sequencing of the course content is logical and clear
- Required instructional materials are easily located
- Links to other parts of the course and external sources are accurate and current
- FAQs or help for technological issues are available

Content

Instructional rigor is equal to that of a face-to-face course. It is delivered to address different learning styles and reinforced through various tools. Courses that adhere to this practice will typically include several of the following:

- Instructional content should include more than one of the following: readings, online lectures, videos, simulations, case studies, games, discussion forums, study guides, practice problems, pretests, homework, etc.
- Activities promoting a sense of engagement and community are included, such as scavenger hunts, ice breakers, collaborative exercises, discussion boards, etc.
- The pace of the course is appropriate to the course content and level
- Clear information and instructions are provided regarding the access of required course materials
- Appropriate media supports course content and adds interest
- Any materials which are not required are clearly marked as optional
- Written material is professional and uses language appropriate to the course topic and level
- Copyright ownership is followed and clearly documented
- All course components are visually and functionally consistent with each other

Active Learning

The course provides a variety of opportunities for interaction that support active learning. Courses that adhere to this practice will typically include several of the following:

- The course includes activities which provide opportunities for students to interact with the teacher, with each other, and with the content
- Activities are included which do not have a single, correct answer
- Challenging tasks are presented
- Sample cases and assignments are used as a template
- Expectations for student participation in the course activities are clear
- Activities and assessments encourage students to apply, analyze and evaluate course content
- Students are encouraged to create new understandings as demonstrated on course assessments
- Students have input to the learning environment, for example, due dates, assessment formats, course content, etc.

Assessment

Various forms of assessment occur throughout the course, in accordance with the HCC attendance policy, and measures student achievement of Student Learning Objectives and/or competencies.

Courses that adhere to this practice will typically include several of the following:

- Forms of assessment should include more than one of the following: quizzes, papers, discussions, self-checks, projects, tests & exams, presentations, case studies, labs, skill assessments, etc.
- Assessments clearly align with Student Learning Objectives
- Instructions, student expectations, and grading standards are clearly stated, this may include the provision of sample assignments
- The course grading policy and grading calculations are stated clearly
- The gradebook is visible to students and there are clear instructions on how students can access their grades and feedback, preferably using the Blackboard Grade Center
- The gradebook is current

Accessibility

Course design reflects a commitment to accessibility and usability throughout the course. Courses that adhere to this practice should include the following:

- Course content is in compliance with the Americans with Disabilities Act
- The course design facilitates readability (e.g., color, font, use of white space, length, background, etc.)
- Necessary technology is easily obtainable
- Course media is easy to view and operate
- Technology used in the course supports achievement of the Student Learning Objectives
- Hardware and software requirements are clearly stated and students are given information about downloading necessary software
- Information directing students to methods of accessing institutional support services; including technology, accessibility, and academic support is included

Appendix B: Towson University Articulation Agreement

Effective Catalog Year 2011-2012

Attachment A

HARFORD COMMUNITY COLLEGE/GENERAL STUDIES A.A. DEGREE TOWSON UNIVERSITY/EXERCISE SCIENCE B.S. DEGREE

HARFORD COMMUNITY COLLEGE			TOWSON UNIVERSITY			
COURSE #	COURSE TITLE	CRS.	TU EQUIVALENCY	CORE	COMMENTS	COURSE ID#
				1.	Towson Seminar	
EN6 101	English Composition	3	ENGL 102	2.	English Composition	2348
MATH 109	Pre-Calculus Mathematics	4	MATH 119	3.	Mathematics	4381
CMST 101	Speech Fundamentals	3	COMM 131***	4.	Creativity & Creative Development	1221***
6H	Arts/Humanities Elective (6H)	3	Depends on choice.	5.	Arts & Humanities	
PSY 101	General Psychology	3	PSYC 101	6.	Social & Behavioral Sciences	7117
BIO 100	Fundamentals of Biology	4	BIOL 190	7.	Biological & Physical Science w/Lab	12069
CHEM 111	General Chemistry I	4	CHEM 110 OR CHEM 131 & 131L	8.	Biological & Physical Science	1041 OR 13097 & 13098
				9.	Advanced Writing Seminar	
6H	Arts/Humanities Elective (6H)	3	Depends on choice.	10.	Metropolitan Perspectives	
HLTH 101	Contemporary Health Issues	3	HLTH 101	11.	The United States as a Nation	3624
6B	Behavioral/Social Science Elective (6B)	3	Depends on choice.	12.	Global Perspectives	
Diversity	Diversity Elective (D)	3	Depends on choice.	13.	Diversity & Difference	
				14.	Ethical Issues & Perspectives	
Total CORE in Transfer		36				
BIO 203	Anatomy & Physiology I	4	BIOL 213			676
BIO 204	Anatomy & Physiology II	4	BIOL 214			677
PHYS 101	Introductory Physics I	4	PHYS 211		Substitution for PHYS 202	6800
EN6 102 OR	English Composition & Literature OR	3	ENGL TLL			10267
EN6 109	English Composition: Research Writing	3	ENGL 162			2352
HIST (6B)	History Elective (6B)	3	HIST		Equivalency depends on choice.	
	General Electives	6			Equivalencies depend on choices.	
	Physical Education /Fitness Elective	1	PHEA TLL			10564
	Physical Education Elective	1	PHEA TLL			10564
Harford Program Requirements		26				
Total Harford Program Requirements		62				
Total Credits in Transfer		62				

* 64 credit transfer maximum. 9 Core Curriculum units must be completed at Towson University: 1. Towson Seminar, 9. Advanced Writing Seminar and 14. Ethical Issues and Perspectives.

***Requires course directive/exception for Core placement at Towson University.

Appendix C: Exercise Science Program Course Sequence

Recommended Course Sequence		
<u>First Semester</u>	<u>Credits</u>	<u>General Education Designation</u>
EXSC 101 Introduction to Exercise Science.....	3	
ENG 101 English Composition.....	3	GE
GH Elective.....	3	GH
GB Elective (D).....	3	GB
CMST 210 Group Communication and Leadership.....	3	GH
Semester Total	15	
<u>Second Semester</u>	<u>Credits</u>	<u>Gen Ed</u>
BIO 120 General Biology I.....	4	GL
CHEM 111 General Chemistry.....	4	GE
Health 101 Contemporary Health Issues.....	3	
EXSC 201 Fitness Assessment and Program Design	3	
Semester Total	14	
<u>Third Semester</u>	<u>Credits</u>	<u>Gen Ed</u>
BIO 203 Anatomy and Physiology I.....	4	GL
Elective.....	3	
EXSC 202 Fitness Instruction.....	3	
MATH 216 Introduction to Statistics.....	4	GM
PE 229 Advanced Weight Training.....	1	PE
Semester Total	15	
<u>Fourth Semester</u>	<u>Credits</u>	<u>Gen Ed</u>
EXSC 283 Exercise Science Internship.....	3	
HLTH 102 First Aid.....	3	
BIO 204 Anatomy and Physiology II.....	4	GL
Elective.....	3	
PSY 101 General Psychology.....	3	GB
Semester Total	16	

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