$\frac{M \subseteq DANIEL}{C O L L E G E}$



July 10, 2019

Dr. James D. Fielder, Jr. Secretary of Higher Education Maryland Higher Education Commission 6 North Liberty Street Baltimore, MD 21201

Dear Secretary Fielder:

McDaniel College is submitting New Program Proposals for eight undergraduate Bachelor of Arts programs. All programs were approved by the McDaniel College faculty during the spring semester and the Board of Trustees at their May meeting.

The programs are as follows:

- Actuarial Science
- Applied Mathematics
- Biochemistry
- Biomedical
- Criminal Justice
- Health Sciences
- Marketing
- Writing and Publishing

The complete proposals have been sent under separate cover in addition to the checks for each program proposal.

Thank you for your consideration and we look forward to hearing from you.

Sincerely,

Julia Jasken, Ph.D. Executive Vice President/Provost

OFFICE OF ACADEMIC AND CAMPUS LIFE

2 College Hill | Westminster, MD 21157-4390 ACADEMIC LIFE: 410.857.2279 | CAMPUS LIFE: 410-857-2244



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

| Institution Submitting Proposal | McDaniel College | | | | |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------|--|--|--|--|
| | | | | | |
| | below requires a separate proposal and cover sheet. | | | | |
| • New Academic Program | O Substantial Change to a Degree Program | | | | |
| O New Area of Concentration | O Substantial Change to an Area of Concentration | | | | |
| O New Degree Level Approval | O Substantial Change to a Certificate Program | | | | |
| O New Stand-Alone Certificate | O Cooperative Degree Program | | | | |
| O Off Campus Program | O Offer Program at Regional Higher Education Center | | | | |
| | O R*STARSPayment Amount:Date Submitted:8/13/2019O CheckAmount:\$850.00Date Submitted:8/13/2019 | | | | |
| Department Proposing Program | Kinesiology and Biology and Chemistry | | | | |
| Degree Level and Degree Type | Undergraduate, Bachelor of Arts | | | | |
| Title of Proposed Program | Health Sciences | | | | |
| Total Number of Credits | 128 | | | | |
| Suggested Codes | HEGIS: 12.01 CIP: 51.9999 | | | | |
| Program Modality | On-campus O Distance Education (fully online) O Both | | | | |
| Program Resources | Using Existing Resources Requiring New Resources | | | | |
| Projected Implementation Date | • Fall O Spring O Summer Year: 2019 | | | | |
| Provide Link to Most Recent Academic Catalog | URL: http://catalog.mcdaniel.edu | | | | |
| | Name: Wendy Morris | | | | |
| | Title: Dean of the Faculty | | | | |
| Preferred Contact for this Proposal | Phone: (410) 857-2521 | | | | |
| | Email: wmorris@mcdaniel.edu | | | | |
| President/Chief Executive | Type Name: Roger Casey | | | | |
| | Signature: Date: 08/20/2019 | | | | |
| | Date of Approval/Endorsement by Governing Board: 05/11/2019 | | | | |

Revised 12/2018

Health Sciences - MHEC proposal

NEW ACADEMIC DEGREE PROGRAMS, NEW STAND-ALONE CERTIFICATE PROGRAMS, AND SUBSTANTIAL MODIFICATIONS

A. Centrality to Institutional Mission and Planning Priorities:

<u>1. Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.</u> Institutional Mission

McDaniel College is a diverse student-centered community committed to excellence in the liberal arts and sciences and professional studies. With careful mentoring and attention to the individual, McDaniel changes lives. We challenge students to develop their unique potentials with reason, imagination, and human concern. Through flexible academic programs, collaborative and experiential learning, and global engagement, McDaniel prepares students for successful lives of leadership, service, and social responsibility.

Currently, McDaniel College students desiring careers in the health sciences are advised to major in Kinesiology, Biology, Chemistry, or Psychology, resulting in different required courses, various additional electives, non-cohesiveness among the cohort, and inconsistent mentoring/career advising. The proposed health sciences major will address these concerns to specifically meet the needs of undergraduate students desiring preparation for entry level positions in the health sciences and/or graduate programs in the health sciences. The proposed health sciences McDaniel College to create a core group of courses with career-focused tracks (in athletic training, chiropractic, nursing, physical therapy, physician assistant, occupational therapy, or pharmacy) and consistency in advising.

This proposed health sciences major aligns with McDaniel College's Institutional Mission as it integrates theory and practice in a carefully structured series of courses, labs, and *collaborative and experiential learning* opportunities. The required core classes in the major are supplemented with additional coursework designed to help students *develop their unique potential* reinforcing McDaniel's commitment *to excellence in the liberal arts and sciences and professional studies*. Combined with *careful mentoring*, the health sciences major will prepare students for *successful lives of leadership, service, and social responsibility*.

Over the past year, our institution engaged in a year-long process of program prioritization which included the development of new majors to meet the professional needs and interests of our current and prospective students. Based on this data driven process, it was determined that our student population would benefit from having both a Biomedical Sciences major and a Health Sciences major. The Biomedical Sciences major is intended to meet the needs of premedical, pre-dental, and pre-veterinary students, whereas the Health Sciences major is intended to meet the needs of various allied health professions such a physician assistants, physical therapists, nurses, occupational therapists, chiropractors, pharmacists, and athletic trainers. The requirements for entry into pre-medical, pre-dental, and pre-veterinary programs are far more standardized than and quite different from the requirements for graduate programs in allied health. For example, in the former, there is a uniform requirement for two years of Chemistry (general and organic) and course work in biochemistry and physics. While our proposed Biomedical Sciences major covers that standardized coursework, our proposed Health Sciences major includes multiple specialized tracks within the major such that students can meet the widely varying course requirements for the different graduate programs within the field of allied health. Therefore, it is our hope that having both of these new majors will prepare our graduates for successful entry into the career of their choice.

2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.

Strategic Vision

Sustained by the transformative power of the liberal arts, we will enhance McDaniel's reputation and strengthen our resources by increasing our focus on the unique potentials of individuals. We will challenge all students academically in a supportive environment of genuine care and graduate an increasing number of diverse, successful, and engaged alumni.

Our Goal of Excellence with Genuine Care: We will attract, retain, and graduate more students by providing a challenging education that develops students' abilities and ambitions, ignites their passions, and prepares them for successful twenty-first century careers.

The health sciences major supports the McDaniel College strategic goal of providing *excellence with genuine care*. Specifically, the health sciences major provides a *challenging education* that develops *students' abilities* and prepares them for *successful twenty-first century careers*. As part of this, the major fulfills the commitment that all undergraduate students will complete more than one experiential learning opportunity. Six tracks within the major require a Practicum experience, which includes skill development, shadowing, feedback, and reflective activities in health science settings. The health sciences major also supports the strategic goal of enhancing the advising and mentoring students receive at McDaniel. As mentioned in A1, there is not currently one major or cohesive plan in place for students interested in health science careers. The creation of this major enables enhanced advising and mentoring via its structure of focused, challenging coursework, and experiences. As a result of a year-long, strategic, program prioritization process across the institution, the Board of Trustees of McDaniel College deemed the establishment of this new major to be a high priority for our institution.

3. Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation. (Additional related information is required in section L.

The strategic enrollment plan (SEP) for this program involved careful collaboration with our VP of Admissions, the Provost, and faculty members who will teach in this major. Based on discussions with these faculty, the VP of Admissions worked with the Provost to determine the investments needed. This major was developed assuming that the program could continue to be sustained through existing institutional resources, but with plans for increased investments needed with the assumption of program growth (described in Section L, Table 2). Assuming the projected enrollment growth materializes, the institution is committed to hiring an additional full-time faculty member for each additional 15 students who enroll in this major and increasing the departmental budget proportionately as enrollment increases.

4. Provide a description of the institution's a commitment to:

a) ongoing administrative, financial, and technical support of the proposed program The institution is committed to supporting the needs of this new program fully and can launch the program immediately using already existing institutional resources. Administrative support will be provided by the administrative assistant for the Kinesiology Department. Should enrollment in the program increase to the point of requiring additional resources, our Strategic Enrollment Plan (SEP) describes our plans and timeline for supporting increasing needs for infrastructure and new faculty (see section L, Table 2). Any technical needs described in the SEP (physical infrastructure, hardware, or software) will be incorporated into our annual budgeting process.

b) continuation of the program for a period of time sufficient to allow enrolled students to complete the program.

Given the demand for this program (as described below in section C), the institution is committed to offering this program for the foreseeable future. However, should there come a time when the institution decides to inactive this program, a multi-year plan would be developed to continue offering the required courses to any enrolled students such that they would be guaranteed to graduate with their intended major.

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

1. Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:

a) The need for the advancement and evolution of knowledge

The largest single intended major from CollegeBoard PSAT/NMSQT 2014-5 College-Bound High School Juniors Summary Report was Health Professions/Sciences with greater than 19% of the more than 1.5 million respondents indicating this field as their intended major. Health Professions/Sciences was also the single largest intended major for the Middle States region as well as for the state of Maryland. Nursing/Health Care is the largest declared major for those

Maryland students graduating in 2018, 2019, and 2020 that completed the myCollege Options NRCCUA survey, with more than 8% of the anticipated high school graduates from Maryland indicating Nursing/HealthCare as one of their top two intended majors. This survey also indicates that Athletics/Coaching was no lower than sixth in the list of intended majors for any of the three years with more than 6% of the Maryland students interested in this field. The Bureau of Labor Statistics Occupational Outlook Handbook indicates that many of the fields that our students are pursuing and that would be served by this proposed major are expected to grow much faster than the national average over the next decade, including Physician Assistants, Nurse Practitioners, Physical Therapy Assistants, Physical Therapy Aides, Medical Assistants, Occupational Therapy Assistants, Physical Therapists. Massage Therapists, Occupational Therapy Aides, and Occupational Therapists. Thus, there is significant need for the advancement and evolution of knowledge in the health sciences area.

McDaniel's program will provide all graduates of the program the opportunity to be competitive applicants to graduate health profession programs such as physical therapy, occupational therapy, pharmacy and more. In order to accomplish this preparation, the program provides students cohesive advising, applied learning opportunities and support finding opportunities such as research and fieldwork that will distinguish our graduates in the applicant pool.

The importance of extensive preparation for the health profession and medical school application process is especially important to the students of color at McDaniel College. The Fall 2019 entering class at McDaniel College is highly diverse:

- 34.6% African American
- 7% Hispanic
- 5.7% two or more races

According to the U.S. Department of Health and Human Services "all minority groups, except Asians are underrepresented in Health Diagnosis and Treating occupations" (<u>https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/diversityushealthoccupations.pdf</u>). The diversity of McDaniel's undergraduate population and the comprehensive and significant support this program will provide to students to prepare them to enter health profession programs will contribute to efforts to diversify the health professions.

b) Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education One of the goals of *Healthy People 2020* is to improve access to comprehensive, quality health care services. As indicated on the HealthyPeople.gov site, "access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans" (https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services). Supporting this goal, McDaniel's proposed health sciences major prepares undergraduate students for entry level positions in the health sciences and/or graduate programs in the health sciences.

In addition, the U.S. Census Bureau's 2017 National Population Projections suggest that by 2035, older people will outnumber children in the United States (https://www.census.gov/newsroom/press-releases/2018/cb18-41-populationprojections.html). Although people are living longer, most are not living healthier. Data from the National Council on Aging indicate that, "approximately 80% of older adults have at least one chronic disease, and 77% have at least two" (https://www.ncoa.org/news/resources-for-reporters/get-the-facts/healthy-agingfacts/). Thus, demand for health care providers and the health sciences field, which is already high, will continue to grow.

c) The need to strengthen and expand the capacity of historically black institutions to provide high quality and unique educational programs

2. Provide evidence that the perceived need is consistent with the Maryland State Plan for Postsecondary Education.

We believe this program aligns with Strategy 8 of the Maryland State Plan for Postsecondary Education:

• Develop new partnerships between colleges and businesses to support workforce development and improve workforce readiness.

As Strategy 8 states, "the contemporary workplace is changing rapidly, and long-held beliefs about academic majors, career paths, and the connections between them have been transformed. More than ever, employers seek employees who have the flexibility to understand changing conditions and solve emerging problems. Technical knowledge is not enough." By housing a program that prepares students with scientific knowledge in a specific discipline but does so in an interdisciplinary way with a liberal arts core, our graduates will be uniquely positioned to impact the medical profession. But the education is not enough. To accomplish this, we will follow our already established models through the Center for Experience and Opportunity and our academic departments, such as interview days, undergraduate research, support for internships, and panels of local professionals

(https://www.mcdaniel.edu/information/headlines/news-at-mcdaniel/archive/summerresearch-brings-student-team-scientific-recognition-and-lasting-frie). These relationships will provide students direct access to employers while giving employers an opportunity to provide feedback on the program. Additionally, McDaniel's strong relationship with the Carroll Hospital Center will provide opportunities for direct relationship development and career exploration.

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

<u>1. Describe potential industry or industries, employment opportunities, and expected level of</u> entry (ex: mid-level management) for graduates of the proposed program.

Due to the variety of opportunity among the many health professions, it is challenging to identify the singular industry our graduates would be entering. Many health professionals work in physicians' offices, hospitals, academia or for the government. They may also work in group practices with other health professionals committed to patient care.

Graduates of the McDaniel program will have strong core science knowledge with research experience and will have met the pre-requisite requirements for most health profession graduate programs. We would not expect graduates of this program to enter the workforce until the completion of their post-Bachelor's programs, and will evaluate success based on their preparation and acceptance to graduate programs.

2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

According to the Bureau of Labor Statistics, employment of healthcare occupations is projected to grow 18 percent from 2016 to 2026, much faster than the average for all occupations, adding about 2.4 million new jobs. Healthcare occupations are projected to add more jobs than any of the other occupational groups. This projected growth is mainly due to an aging population, leading to greater demand for healthcare services.

3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.

The Bureau of Labor Statistics indicates that the employment change between 2016-2026 will be 2.4 million new jobs.

Additionally, the impact of the aging workforce will be felt in the medical field. Though specific vacancies across the industry have not been projected, it is reasonable to assume that this field will not be exempt from this phenomenon.

55 years & older 25.2 19.5 13.1 11.9 1990 2000 2010 2020 (Projected) Source: Toossi, M. 2012. "Labor Force Projections to 2020: A More Slowly Growing Workforce." Monthly Labor Review (January, 2010-2020).

Percent of the labor force

Figure 1

4. Provide data showing the current and projected supply of prospective graduates.

McDaniel's internal data reflects strong interest in health professions. 3% of the deposited students for the Fall 2019 class identify as "pre-health profession". An additional 14% selected minors in Athletic Training and Sports Management, reflecting another group likely to be interested in this program. 80 students (13%) identify as Undecided and would be a group to introduce to the program.

Given our own internal interest and the number of college-bound students interested in health professions nationally (see section D.2 below), we project annual enrollment of no fewer than 12 students per year. Applying standard attrition patterns, we project a minimum of 8 graduates per year.

D. Reasonableness of Program Duplication:

1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded. According to the State Academic Program Inventory, found at https://mhec.state.md.us/institutions training/Pages/searchmajor.aspx, and the degree trend data downloadable from the MHEC website (http://data.mhec.state.md.us/Trend Aux/DTRENDSD18.zip), we offer the following

information on Maryland schools with similar undergraduate programs:

| | | Degrees Awarded | | | | | |
|-------------|---------|-----------------|--------------------------|---|--------------------------|---|----------------------------|
| Institution | Program | 2014 | 2014 2015 2016 2017 2018 | | Similarities/Differences | | |
| Coppin | Health | 0 | 0 | 0 | 2 | 9 | Some similar core courses; |

| State University | Sciences | | | | | | different in terms of McDaniel requiring more core courses (12 courses for 44 credits) and a specialized track (6 courses for 24 credits) versus Coppin requiring 6 core courses for 19 credits and additional coursework determined after conferring with an advisor |
|---------------------------------------|--------------------|---|---|---|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frostburg State University | Health Sciences | 0 | 0 | 0 | 6 | 21 | Both programs are interdisciplinary in nature and have some similar core courses; different in terms of McDaniel requiring a specialized track within the major |
| Mount St. Mary's University | Health Sciences | 0 | 9 | 8 | 13 | 15 | Both programs are interdisciplinary in nature, have some similar core courses, and offer tracks in pre- nursing, physical therapy, and occupational therapy; different in terms of McDaniel offering tracks in pharmacy, athletic training, chiropractic, and physician assistant |
| Washington Adventist University | Health Sciences | 1 | 0 | 2 | 4 | 2 | Some of Washington Adventist's cognate courses are similar to McDaniel's health sciences core courses, but the Washington Adventist health science core curriculum resembles McDaniel's Kinesiology major/minor more than McDaniel's health sciences major; also different in terms of McDaniel requiring a specialized track within the major |

Our proposed program and the program at Coppin State, Frostburg State, Mount St. Mary's, and Washington Adventist have similarities, but also distinctive differences. Our programs all include some version of Biology I and II, Chemistry I and II, Anatomy and Physiology, Statistics, and Medical Terminology as pre-requirements or requirements. Our programs differ in how the rest of the coursework and/or elective coursework prepares students for future careers. At McDaniel, in addition to our 44 credits of core courses, our proposed health sciences major requires students to complete a career-focused track (24 credits) in athletic training, chiropractic, nursing, physical therapy, physician assistant, occupational therapy, or pharmacy. Courses in the tracks were chosen based on common pre-requisite courses required or suggested for entrance into graduate and certificate programs. In comparison, Coppin State, Frostburg State, and Washington Adventist do not include career-focused tracks. Coppin State requires 19 credits in the health science core with additional coursework determined after conferring with an advisor. In addition to general education requirements, Frostburg State requires 34 credits in required health science courses and 38 elective credits (32 credits from a listing of health and natural science electives and 6 credits from a listing of social science electives). Washington Adventist University's health science core curriculum resembles

McDaniel College's kinesiology major and/or minors rather than our proposed health science major. Mount St. Mary University's health science major requires a track in addition to the core coursework, but only offers tracks in nursing, physical therapy, and occupational therapy. In addition to those 3 tracks, McDaniel also proposes to offer tracks in athletic training, chiropractic, physician assistant, and pharmacy. A final difference is that McDaniel's health sciences major will result in a B.A., reflecting our liberal arts tradition, while the health sciences major at Coppin State, Frostburg State, Mount St. Mary's, and Washington Adventist results in a B.S.

2. Provide justification for the proposed program.

According to the College Board Student Search Service, a data pool that covers nearly 90 percent of all college-bound students, out of the students planning to enroll in college in fall 2019, 69,724 indicated an intended major in "Health Professions and Related Clinical Sciences" or "Health Services/Allied Health/Health Sciences, General." Given the national interest in this field along with our internal student demand as demonstrated through current students who enroll in the existing specialization, we believe the benefits of the program are clear.

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

<u>1. Discuss the program's potential impact on the implementation or maintenance of high-demand programs at HBI's.</u> N/A

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

 Discuss the program's potential impact on the uniqueness and institutional identities and missions of HBIs.
 N/A

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes (as outlined in <u>COMAR 13B.02.03.10</u>):

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

Faculty regularly advising students desiring careers in the health sciences met to review and discuss strengths, weaknesses, opportunities, and threats. Consequently, the proposed health sciences major was established. The health sciences major draws from several departments across McDaniel College to create a core grouping of courses and career-focused tracks. Courses were chosen based on common pre-requisite courses required or suggested for entrance into graduate and certificate programs. The tracks included are those areas in health science most sought after by our students and prospective students. This structure enables greater structure and more consistent support and career advising throughout a student's time at McDaniel. The health sciences program will be overseen by the Chairs of the Chemistry and Kinesiology Departments, along with designated faculty teaching in the program who have experience advising students interested in health science fields and supervising internships in these areas.

<u>2</u>. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

Upon completion of the health sciences major, students will:

- 1. Demonstrate foundational knowledge in biology, chemistry, anatomy, and physiology.
- 2. Apply the scientific process, tools, and techniques to solve problems.
- 3. Effectively communicate the results of scientific work in oral and written formats.
- 4. Develop professional skills and behaviors consistent with careers in the health sciences.

3. Explain how the institution will:

a) provide for assessment of student achievement of learning outcomes in the program Student achievement of learning outcomes in the program is overseen by the Academic Assessment Committee (AAC) as part of McDaniel's established faculty governance. This committee of five full-time teaching faculty is charged with fostering sound assessment of the College's academic programs, encouraging the collection of data that leads to action, and collecting departmental assessment plans and reports and responding to them as necessary. The program will provide a list of learning outcomes to the AAC along with a chart indicating the specific courses in which each outcome is developed as well as courses that serve as points of assessment. In the fall of each academic year, the program will select an outcome (or outcomes) to assess and provide a detailed plan for direct and indirect assessment to the AAC; the AAC will provide feedback on this plan, as needed. All the department's learning outcomes will be revisited and assessed on a regular basis so that changes made based on past assessments can be evaluated.

b) document student achievement of learning outcomes in the program

In the spring of each academic year, the program will document the degree to which students achieved the learning outcomes in the program by providing a report on the assessment of these outcomes to the AAC, based on the assessment plan submitted earlier in the year. These reports will include the assessment findings as well as a proposed plan of ways to address any areas in which students did not successfully meet the learning outcomes set forth by the department.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements

The proposed health sciences major is composed of 68 total credits. The major includes 12 core courses totaling 44 credits. In addition to the core courses, students <u>must select one track</u> (athletic training, chiropractic, nursing, physical therapy, physician assistant, occupational therapy, or pharmacy) to complete within the major. Each track consists of 6 courses, totaling 24 credits. General education requirements (McDaniel Plan) and electives comprise the remaining 60 credits required for graduation.

| Proposed Health Sciences Major | | | | |
|--------------------------------|-----------------------------|---|--|--|
| Number | Credits | | | |
| CHE 1103 & CHE 1001 | General Chemistry 1 w/lab | 4 | | |
| CHE 1104 & CHE 1002 | General Chemistry 2 w/lab | 4 | | |
| BIO 1111 & BIO 1101 | Principles of Biology w/lab | 4 | | |
| BIO 1117 | Topics in Biology | 4 | | |
| BIO 1120 & BIO 1104 | Human Anatomy w/lab | 4 | | |
| BIO 2211 & BIO 2011 | Human Physiology w/lab | 4 | | |
| KIN 2001 | Medical Terminology | 4 | | |
| PSY 1106 | Intro Psychology | 4 | | |

Proposed Health Sciences Major

| STA 2215 | Statistics | 4 |
|-----------------------------------------|---------------------------------------------------------|-----------|
| CHE 1xxx | Medical Careers 101 | 4 |
| CHE 3205 Chemical Literature AND | | |
| CHE 4493 Chemistry Seminar | | |
| OR | | |
| KIN 3200 Writing in Kinesiology AND | | |
| KIN 4493 Research Capstone in Kinesiolo | gy | 4 |
| | | |
| | | |
| T | | |
| Total Core Credits: | | 44 |
| Tracks - 6 courses x 4 credits | | 24 |
| Total number of credits: | | 68 |
| Tracks: | | |
| Physician Assistant | | |
| CHE 2217 & CHE 2017 | Organic Chemistry 1 w/lab | 4 |
| CHE 2218 & CHE 2018 | Organic Chemistry 2 w/lab | 4 |
| CHE 3321 & CHE 3021 | Biochemistry 1 w/lab | 4 |
| PHY 1104 & PHY 1004 | Introductory Physics 1 w/lab | 4 |
| BIO 2212 | Microbiology | 4 |
| KIN 3xxx | Practicum in Health | 4 |
| | cs 2, Intro to Sociology, Intro to Aging, Adulthood and | |
| Aging, Communication or English course | | |
| Physical Therapy | | |
| PHY 1104 & PHY 1004 | Introductory Physics 1 w/lab | 4 |
| PHY 1105 & PHY 1005 | Introductory Physics 2 w/lab | 4 |
| KIN 3226 | Strength Development | 4 |
| KIN 2225 | Prevention & Care of Athletic Injury | 4 |
| KIN 3222 & KIN 3022 | Exercise Physiology w/lab | 4 |
| KIN 3xxx | Practicum in Health | 4 |
| Recommended: Intro to Sociology, Deve | lopmental Psychology, Intro to Aging, Adulthood and | |
| Aging, Communication or English course | | |
| Occupational Therapy | | |
| PSY 2209 | Developmental Psychology | 4 |
| PSY 2211 | Abormal Psychology | 4 |
| KIN 3330 OR PHY 1104 & PHY 1004 | Biomechanics or Introductory Physics 1 w/lab | 4 |
| SOC 1104 | Intro to Sociology | 4 |
| KIN 2215 | Adapted Physical Education | 4 |
| KIN 3xxx | Practicum in Health | 4 |
| | urse, additional Psychology course, Intro to Aging, | |
| Adulthood and Aging, and Communication | on or English course | |
| Athletic Training | | |
| PHY 1104 & PHY 1004 OR KIN 3330 | Introductory Physics 1 w/lab or Biomechanics | 4 |
| KIN 2225 | Prevention & Care of Athletic Injury | 4 |
| KIN 3306 | Advanced Athletic Training | 4 |
| KIN 2325 | Nutrition | 4 |
| KIN 3222 & KIN 3022 | Exercise Physiology w/lab | 4 |
| KIN 3307 | Practicum in Athletic Training | 4 |
| Recommended: Contemporary Health, P | Physics 2 w/lab, Communication or English course | |
| Chiropractic | | |

| CHE 2217 & CHE 2017 | Organic Chemistry 1 w/lab | 4 |
|-----------------------------------|------------------------------------------------------|---|
| PHY 1104 & PHY 1004 | Introductory Physics 1 w/lab | 4 |
| KIN 3226 | Strength Development | 4 |
| KIN 3222 | Exercise Physiology | 4 |
| Biology Elective 2000-3000 | | 4 |
| KIN 3xxx | Practicum in Health | 4 |
| Nursing | | |
| KIN 2325 | Nutrition | 4 |
| BIO 2212 | Microbiology | 4 |
| BIO 2203 & BIO 2003 | Genetics w/lab | 4 |
| PSY 2209 | Developmental Psychology | 4 |
| PHI 1105 | Contemporary Issues in Ethics | 4 |
| KIN 3xxx | Practicum in Health | 4 |
| Recommended: Intro to Aging, Adul | thood and Aging | |
| Pharmacy | | |
| CHE 2217 & CHE 2017 | Organic Chemistry 1 w/lab | 4 |
| CHE 2218 & CHE 2018 | Organic Chemistry 2 w/lab | 4 |
| CHE 3321 & CHE 3021 | Biochemistry 1 w/lab | 4 |
| BIO 2212 | Microbiology | 4 |
| PHY 1114 & PHY 1014 | General Physics I w/lab | 4 |
| PHY 1115 & PHY 1015 | General Physics II w/lab | 4 |
| Recommended: Microeconomics, Me | edicinal Chemistry, Cell Biology, Intro to Sociology | |

Additional credits outside for the Major

| Type of Course | Details | Credits |
|-------------------------|-----------------------------------------------------------------------------|-------------|
| First Year Seminar | General education requirement | 4 |
| ENG 1101 | Introduction to College Writing, general education requirement | 4 |
| Writing in the | Majors will complete this general education requirement by | Credits |
| Discipline | taking Chemical Literature CHE 3205 and CHE 4493 OR by | included in |
| | taking KIN 3200 and KIN 4493 | the major |
| Second Language | General education requirement is 2 semesters in the same | 8 |
| | language or placement/proficiency above the 2 nd semester level. | |
| Multicultural | Category of courses for general education requirement | 4 |
| International | Category of courses for general education requirement | 4 |
| Nonwestern | | |
| International Western | Choice of 2 categories of courses for general education | 4 |
| OR Nonwestern | requirement | |
| Quantitative | Category of courses for general education requirement | 4 |
| Reasoning | | |
| Scientific Inquiry with | Majors will take BIO 1111 to complete this general education | Credits |
| Lab | requirement | included in |
| | | the major |
| Quantitative | Majors will take CHE 1103 to complete the general education | Credits |
| Reasoning OR | | included in |
| Scientific Inquiry | | the major |
| Textual Analysis | Category of courses for general education requirement | 4 |

| Creative Expression | Category of courses for general education requirement | 4 |
|-------------------------------------------------------------|-----------------------------------------------------------------|-------------|
| Social, Cultural, | Majors will take PSY 1106 to complete this general education | Credits |
| Historical | | included in |
| Understanding | | the major |
| Physical Activity & | General education requirement is 1 credit of physical activity | 0-1 |
| Wellness | courses OR participation in intercollegiate sports, ROTC, or | |
| | some other approved experience. | |
| Jan Term | General education requirement of 1 course during a January | 2 |
| | Term. Most students complete this by taking My Design. | |
| My Career | General education requirement | 1 |
| Experiential Learning | General education requirement is that students complete | 0-4 |
| | credited or non-credited experiential learning which could | |
| | include courses, internships, experiential independent studies, | |
| | or study abroad. | |
| Total number of gener | al education credits outside of the major | 43-48 |
| Remaining elective con elective credit) | urses (these could count toward a minor, another major, and/or | 12-17 |
| 1 | n general education and elective coursework | 60 |
| Total number of credits from the major (see previous table) | | |
| | s required for the B.A. degree | 128 |

COURSE DESCRIPTIONS FOR THE MAJOR:

CHE 1103 - General Chemistry I: Structure and Bonding

Credits: 4

The first half of the two-semester, general chemistry sequence is designed primarily for those students who are interested in majoring in the sciences and have sufficiently solid backgrounds in science and mathematics to allow for a more in-depth investigation of the field. The course includes an introduction to the scientific method and its application to the study of chemistry and the properties of matter. The structure of matter at the atomic level is then presented in detail from the standpoint of modern atomic and molecular theory. This includes a description of the electronic structure of atoms and their relation to the periodic table, mass relationships, ionic and covalent bond formation and the theories used to explain molecular shape and molecular interactions. Finally, the major classes of chemical reactions and their associated energy changes will be explored including techniques used to balance chemical equations and the use of stoichiometry to make quantitative predictions. The laboratory focuses on the observation of physical properties of matter and chemical reactions by conventional and instrumental methods, and the application of these observations in a problem-solving environment. Course includes a 3-hr laboratory. Prerequisites Mathematics 1001 and 1002 Co-requisites Chemistry 1001

Recommended Co-requisites Mathematics 1107 or above

McDaniel Plan: Scientific Inquiry with Laboratory

CHE 1001 - General Chemistry I Lab

Credits: 0 Laboratory for General Chemistry I Course. *Co-requisites CHE 1103*

CHE 1104 - General Chemistry II: Chemical Reactivity

Credits: 4

The second half of the two-semester, general chemistry sequence is designed primarily for those students who are interested in majoring in the sciences and have sufficiently solid backgrounds in science and mathematics to allow for a more in-depth investigation of the field. The course starts with an overview of the physical properties of solids, liquids and gases and how they can be interpreted using kinetic molecular theory. Major topics also include an introduction to chemical kinetics, the principles of chemical equilibrium, and chemical thermodynamics. Finally, a detailed study of two important classes of reactions, acid-base and reduction-oxidation, will be covered. In the laboratory, students explore gases, solutions, kinetics, and equilibrium, using conventional and instrumental techniques, applying their skills in a problem-solving environment. Course includes a 3-hr laboratory. *Prerequisites Chemistry 1101 or Chemistry 1103 and Mathematics 1001 and Mathematics 1002*

Co-requisites Chemistry 1002 Recommended Co-requisites Mathematics 1107 or above

McDaniel Plan: Scientific Inquiry with Laboratory

CHE 1002 – General Chemistry II Lab

Credits: 0 Laboratory for General Chemistry II Course. *Co-requisites CHE 1104*

BIO 1111 - Principles of Biology

Credits: 4

This course is intended for prospective science majors and is required before all Biology courses at the 2000 level or above. It focuses on unifying themes and principles including evolution and the relationship of structure to function. The laboratory emphasizes basic skills and is an integral component of the semester. Course includes laboratory.

Required before any Biology courses at the 2000 level or above; may be taken in either the first or second semester.

Note: An AP score of 4 or 5 may allow waiver of a second 1000-level Biology course, but not of Biology 1111

McDaniel Plan: Scientific Inquiry with Laboratory

BIO 1101 - Principles of Biology I Lab

Credits: 0

This course is intended for prospective science majors and is required, along with BIO 1112 before all Biology courses at the 2000 level or above. It focuses on unifying concepts of species and adaptation of species to change. The first semester is an overview of cell biology including

cell structure, cell metabolism, cell reproduction, enzyme action, DNA, protein, and genetics. The laboratory emphasizes basic techniques and is an integral component of each semester. *Co-requisites BIO 1111*

BIO 1117 - Topics in Biology

Credits: 4

This course is the second introductory course in the Biology major. In it students will continue to explore the principles of biology established in the first semester course, but within the narrower focus of a topic that varies by instructor. Besides mastering course content, students will also develop some of the skills of successful scientists, such as critically reading scientific literature, learning the basic conventions of writing in biology, or interpreting experimental data.

Prerequisites Biology 1111 McDaniel Plan: Scientific Inquiry

BIO 1120 - Human Anatomy

Credits: 4

A study of the anatomical structure of the human body. The basic concepts of anatomy: gross, microscopic, developmental, and clinical - will be studied by organ systems. Form-function relationships will be emphasized. This functional anatomy approach will explain how the shape and composition of the anatomical structures allow them to perform their functions. This course is appropriate for students interested in careers in health, fitness, wellness, recreation, physical therapy, athletic training, coaching, medicine, nursing, or other fields where knowledge of the human body may be important.

Co-requisites BIO 1104

BIO 1104 - Human Anatomy Lab

Credits: 0

This course uses laboratory activities to study the anatomical structure of the human body. The labs involve a balance between gross anatomical study and histology and are intended to supplement the material presented in the Human Anatomy lecture course. *Co-requisites BIO 1120*

BIO 2211 - Human Physiology

Credits: 4

A study of the functions of the human organism: digestion, circulation, respiration, excretion, nervous control, endocrine regulation, and muscle action. Intended for those majoring in Kinesiology. This course does not fulfill requirements of a Biology major. *Prerequisites BIO 1117 or KIN 3226 or permission of instructor Co-requisites Biology 2011*

BIO 2011 – Human Physiology Lab

Credits: 0

This course uses laboratory experiences to study the functions of the human organism. Students will use standard physiological assessment tools, computer simulations, and the scientific literature to gain a better understanding of human physiology. Intended for those majoring in Kinesiology. This course does not fulfill requirements of a Biology major.

KIN 2001 - Medical Terminology

Credits: 4

This course examines medical vocabulary including root words, prefixes and suffixes used in various health professions. Students review the nervous, skeletal, cardiovascular, muscle and other major systems of the human body, and discuss terms related to physiology, anatomy and pathological conditions. Students will develop a working knowledge of medical terms and abbreviations.

Prerequisites BIO 1111

PSY 1106 - Introduction to Psychology

Credits: 4

An introductory course designed to develop an understanding of the basic principles governing behavior, with emphasis on the scientific method of studying behavior. Intelligence, motivation, emotion, perception, learning, personality, workplace issues, and social factors that influence the individual will be considered.

McDaniel Plan: Social, Cultural, and Historical Understanding

STA 2215 - Introduction to Statistics

Credits: 4

Basic statistical principles and techniques; summarizing and presenting data, measuring central tendency and dispersion in data, basic concepts of probability and probability distributions, estimation of parameters and testing of hypotheses through statistical inference, linear regression and simple correlation.

Not open to students who have completed Mathematics 3324. Prerequisites Mathematics 1001, Mathematics 1002 or placement above MAT 1002 **McDaniel Plan:** Quantitative Reasoning

CHE 1xxx - Medical Careers 101

Credits: 4

This course is designed for students interested in pursuing a career in health science or medicine. Students will be exposed to a wide variety of careers through homework assignments, class presentations, guest speakers, and volunteer work. The careers explored will span Diagnosing and Treating Professions (e.g Physician, Optometrist, etc.), Medical Research, Technicians, Rehabilitation, Specialists, Geriatric Care, and more. Furthermore, through the analysis of medically-related case studies, students will gain scientific knowledge and skills that are necessary to be successful in health science and medical careers. *THIS NEW COURSE IS IN THE PROCESS OF FACULTY REVIEW*.

CHE 3205 - The Chemical Literature

Credits: 2

An introduction to modern searching of the scientific literature using electronic databases, including Chemical Abstracts. Specific instruction is given in the techniques and strategies used in searching subjects, authors, and substances in retrospective, forward, and relational databases. As a culminating experience in this course, students will perform a comprehensive literature search on a subject and then produce a concise review of the topic.

This course contributes to the departmental writing requirement for all major programs of study offered by the Department of Chemistry.

CHE 4493 - Chemistry Seminar

Credits: 2

Presentation of laboratory or literature findings on current topics of chemical interest by students, faculty, and visiting lecturers. This course is the Capstone Experience in Chemistry and is required of all senior Chemistry and Biochemistry majors and Exercise Chemistry dual majors. Juniors and non-majors may be admitted by permission of the department.

This course satisfies the capstone requirement for all major programs of study offered by the Department of Chemistry.

Prerequisites Chemistry 3205

KIN 3200 - Writing in Kinesiology

Credits: 2

This course is the first part of a two-part sequence intended for KIN majors not completing KIN 4490 (Capstone in Kinesiology) and is required for KIN majors seeking departmental honors. Students will examine, and practice, various methods of communicating scientific information. Students will select a project for their capstone project and review the literature related to the topic while also investigating the methods necessary to answer their research question. This class should be taken in the semester immediately preceding Research Capstone in Kinesiology (KIN 4493). Students must have completed 24 credit hours in the major. *Prerequisites Students must have completed 24 credits in the major*.

KIN 4493 - Research Capstone in Kinesiology

Credits: 2

This course is the second part of a two-part sequence intended for KIN majors not completing KIN 4490 and is required for KIN majors seeking departmental honors. Development and presentation of a project that synthesizes learning from earlier course work and curricular experiences such as internships or independent study. Students will summarize and present their results in a poster presentation at the end of the semester. *Prerequisites KIN 3200*

PHY 1104 - Introductory Physics I

Credits: 4

This is the first course in the two-semester, algebra-based, introductory physics sequence. Topics include: The fundamental ideas that govern kinematics and dynamic motion for both linear and rotational systems, equilibrium and elasticity, concepts of energy and momentum, and thermodynamics and fluids. The laboratory component of the course is aimed at developing data collection and analysis skills through a series of experiments in mechanics and thermodynamics. The laboratory must be enrolled in separately.

Prerequisites/co-requisites MAT-1107

Co-requisites PHY-1004

McDaniel Plan: Scientific Inquiry with Lab

PHY 1004 - Introductory Physics I Lab

Credits: 0 Laboratory for PHY-1104 Introductory Physics I. *Co-requisites PHY 1104*

PHY 1105 - Introductory Physics II

Credits: 4

This is the second course in the two-semester, algebra-based introductory physics sequence. Topics include: Oscillatory systems, waves, and sound; properties of light, geometrical optics, and physical optics; fundamental ideas of electricity and magnetism; and circuits and circuit analysis. The laboratory component of the course is aimed at developing data collection and analysis skills through a series of experiments in oscillations, light, electromagnetism, and circuits. The laboratory must be enrolled in separately.

Prerequisites PHY-1104 or PHY-1114 Prerequisites/co-requisites MAT-1107 Co-requisites PHY-1005 McDaniel Plan: Scientific Inquiry with Lab

PHY 1005 - Introductory Physics II Lab

Credits: 0 Laboratory for PHY-1105 Introductory Physics II. *Co-requisites PHY 1105*

CHE 2217 - Organic Chemistry I

Credits: 4

A systematic study of the compounds of carbon based upon functional reactivity with emphasis on the physicochemical approach to reaction mechanisms. In addition to a treatment of basic molecular structure, stereochemistry, equilibria, kinetics and nomenclature, the chemistry of alkanes, alkenes, alkynes, aromatics, and alkyl halides is studied. A coordinated laboratory incorporates classical techniques (recrystallization, distillation, and extraction), analytical methods (chromatography and IR spectroscopy), and molecular modeling. Course includes a 4hr laboratory.

Prerequisites Chemistry 1102 or 1104 Co-requisites Chemistry 2017

CHE 2017 - Organic Chemistry I Lab

Credits: 0 Laboratory for Organic Chemistry I class. *Prerequisites/Co-requisites CHE 2217*

CHE 2218 - Organic Chemistry II

Credits: 4

A systematic study of the compounds of carbon based upon functional reactivity with emphasis on the physicochemical approach to reaction mechanisms. With continued emphasis upon mechanisms, the chemistry of alcohols, ethers, phenols, carboxylic acids and their derivatives, amines, carbohydrates, and amino acids is studied. A coordinated laboratory incorporates NMR spectroscopy, molecular modeling, micro and macro scale synthesis, and scientific writing. Course includes a 4-hr laboratory. Prerequisites Chemistry 2217 Co-requisites Chemistry 2018

CHE 2018 - Organic Chemistry II Lab

Credits: 0 Organic Chemistry II lab. Prerequisites/Co-requisites CHE 2218

CHE 3321 - Biochemistry I

Credits: 4

This course provides an exploration of cellular function on a molecular level. The major focus of the course is on protein chemistry; topics include protein structure, folding, synthesis, and function. Skills such as technical writing, database information retrieval, data analysis, and critical thinking are highlighted. The laboratory is research-based and will primarily explore the relationship between protein misfolding and human disease. Techniques include protein purification, electrophoresis, and spectroscopic characterization. Course includes a 4-hr laboratory.

Prerequisites Chemistry 2217 and Biology 1111 Co-requisites Chemistry 3021 Recommended Chemistry 2218 and 3205

CHE 3021 - Biochemistry I Lab

Credits: 0 Laboratory for Biochemistry I course. *Co-requisites CHE 3321*

BIO 2212 - Microbiology

Credits: 4

A study of structure, metabolism, growth, and reproduction of microorganisms with emphasis on bacteria. Course includes laboratory. *Prerequisites BIO 1111, BIO 1117 and CHE 1101, CHE 1103, or FYS 1137*

KIN 3xxx - Practicum in Health

Credits: 4

This course provides an opportunity for the practical application and integration of knowledge and skills from previous coursework to settings in the health sciences. *Prerequisites Junior status or permission of instructor McDaniel Plan: Experiential Learning THIS NEW COURSE IS IN THE PROCESS OF FACULTY REVIEW*

KIN 3226 - Principles of Strength Development

Credits: 4

This course will introduce the scientific principles governing strength development as well as demonstrate a practical approach to training for muscular strength, endurance, and power. The basic principles of program design, technique instruction, and safety will be covered. This course will provide students with the knowledge and skills pertinent to the National Strength and Conditioning Association (NSCA) certified strength and conditioning specialist (CSCS) exam. *Prerequisites BIO 1120*

KIN 2225 - Prevention and Care of Athletic Injuries

Credits: 4

Prevention, care, and management of injuries associated with physical activity and medical emergencies. Topics considered include basic human anatomy, recognition, and evaluation of injuries.

Prerequisites Biology 1120

KIN 3222 - Exercise Physiology

Credits: 4

The principles and concepts of physiological function will be discussed as they apply to human movement. Included with the principles and concepts will be selected methods and techniques of assessing physiological function under varied performance conditions. The relationship between exercise and health will also be discussed.

Prerequisites BIO 2211 or BIO 3316 Co-requisites KIN 3022 **McDaniel Plan:** Scientific Inquiry with Laboratory

KIN 3022 - Exercise Physiology Lab

Credits: 0

This course is intended for Kinesiology majors and is required along with KIN 3222. The laboratory emphasizes the physiological processes that form the foundation for basic assessment techniques in the discipline and is an integral component of Exercise Physiology. Additional course fee applies.

Co-requisites KIN 3222

PSY 2209 - Developmental Psychology

Credits: 4

The study of developmental changes from the prenatal period through adolescence, with particular emphasis on how physical, cognitive, and social-emotional development interact in forming the whole person. Special attention will be given to theoretical perspectives, the contexts within which development operates (home/school), and the application of research to current topics.

Prerequisites Education 1141, First Year Seminar 1111, or Psychology 1106 McDaniel Plan: Social, Cultural, and Historical Understanding

PSY 2211 - Abnormal Psychology

Credits: 4

The incidence, causes, treatment, and prevention of abnormal behavior of persons; major focus on adult populations.

KIN 3330 - Biomechanics

Credits: 4

This course enables the student to develop an understanding of the basic mechanical principles that explain movement. Upon completing the course students will be able to identify and understand the laws that govern rest and motion of the human body. This preparation is useful for the student considering a career in medicine, physical and occupational therapy, athletic and personal training, coaching, safety engineering, and risk management.

SOC 1104 - Introduction to Sociology: A Global Perspective

Credits: 4

This course offers an overview of the discipline of sociology from a global perspective, focusing particularly on cross-cultural examples of social, economic and political relationships. It explores how social forces impact the structure of society and its social institutions as well as cultural patterns, groups, personality, and human interactions.

McDaniel Plan: International Nonwestern; Social, Cultural, and Historical Understanding

KIN 2215 - Adapted Physical Education

Credits: 4

Organization of developmental, remedial, and atypical programs for people with disabilities with an emphasis on the special competencies needed to deliver quality physical education programs to special populations. Consideration is given to legal and administrative aspects of service delivery; assessment of individuals; program planning and IEP preparation; specialized instructional techniques and teaching strategies; and modification of activities, materials, equipment, and facilities. Extensive field work is required.

KIN 3306 - Advanced Athletic Training

Credits: 4

Advanced principles of athletic training including etiology, indications, evaluation, management, and rehabilitation of complex athletic injuries along with the administration of athletic training programs and facilities. Emphasis is on human anatomy, recognition of injuries, rehabilitation theory, theory and use of modalities, and the relationships among the health care professions. *Prerequisites KIN 2225*

KIN 2325 - Nutrition

Credits: 4

A study of the nutritional needs throughout the human lifespan. Topics include energy nutrients, vitamins, minerals, recommended dietary allowances, and weight control. Fad diets, nutritional supplementation, and the world's food supply are also examined. *Prerequisites/Co-requisites Mathematics 1001 or placement McDaniel Plan: Scientific Inquiry*

KIN 3307 - Practicum in Athletic Training

Credits: 4 Practical experience and extensive field work in athletic training. Prerequisites KIN 2225

BIO 2203 - Genetics

Credits: 4

A study of the concepts of classical and contemporary genetics. The action of genetic mechanisms at various levels of biological organization (molecular, cellular, organismal, and population) and in a variety of cells and organisms is included. Course includes laboratory. *Prerequisites BIO 1111 and BIO 1117*

Co-requisites BIO 2003

BIO 2003 – Genetics Lab

Credits: 0 Students will use several model organisms and techniques to explore classical and molecular genetics. *Prerequisites/Co-requisites BIO 2203*

PHI 1105 - Contemporary Issues in Ethics

Credits: 4

An introduction to the major ethical theories including Aristotle's Theory of Happiness, Kant's concept of duty, Act and Rule Utilitarianism, Pragmatism, Ethical Egoism, and their contemporary versions; and to the major issues of our day such as abortion, euthanasia, the rights of animals, racism and sexism, professional conduct, capital punishment, war and peace, civil disobedience, law versus conscience, and environment and biological topics. *McDaniel Plan: Textual Analysis*

PHY 1114 - General Physics I

Credits: 4

This course is the first in the two-semester, calculus-based, general physics sequence. The course will introduce students to kinematics and dynamic motion for linear, rotational, and oscillatory systems; concepts of energy and momentum; and wave phenomena, sound, and fluids. The laboratory component of the course is aimed at developing data collection and analysis skills through a series of experiments in mechanics. The laboratory must be enrolled in separately.

Co-requisites PHY 1014 General Physics I Lab Prerequisites/co-requisites MAT 1117 or permission of the instructor **McDaniel Plan:** Scientific Inquiry with Laboratory

PHY 1014 - General Physics I Lab

Credits: 0 Laboratory for PHY 1114 General Physics I. *Co-requisites PHY 1114*

PHY 1115 - General Physics II

Credits: 4

This is the second course in the two-semester, introductory, calculus-based General Physics sequence. In this course we cover the fundamental ideas of electricity and magnetism, the influence of electromagnetic fields on particles, Maxwell's equations, circuits and circuit analysis, geometric and physical optics, and Einstein's theory of relativity. The laboratory

component of the course is aimed at developing data collection and analysis skills through a series of experiments in electromagnetism and optics and must be enrolled in separately. *Co-requisites PHY 1015 General Physics II Lab Prerequisites/co-requisites MAT 1117 or permission of the instructor McDaniel Plan: Scientific Inquiry with Laboratory*

PHY 1015 - General Physics II Lab

Credits: 0 Laboratory for PHY 1115 General Physics II. *Co-requisites PHY 1115*

5. Discuss how general education requirements will be met, if applicable.

Of the 68 credits proposed for the health sciences major, 16 credits fulfill general education requirements for all students. These include:

a) 2 courses will fulfill the Scientific Inquiry with Lab requirements: Principles of Biology with lab (BIO 1111 and BIO 1001, 4 credits) and General Chemistry I with lab (CHE 1103 and CHE 1001, 4 credits).

b) 1 course will fulfill the Social, Cultural, Historical requirement: Introduction to Psychology (PSY 1106, 4 credits).

c) 4 credits will fulfill the Writing in the Discipline requirement: Chemical Literature (CHE 3205, 2 credits) and Chemistry Seminar (CHE 4493, 2 credits) OR Writing in Kinesiology (KIN 3200, 2 credits) and Research Capstone in Kinesiology (KIN 4493, 2 credits).

As part of the occupational therapy track, students will also meet another 4 credits of general education requirements via Introduction to Sociology (SOC 1104, 4 credits), which meets an International requirement. Finally, students in the athletic training, chiropractic, nursing, physical therapy, physician assistant, and occupational therapy tracks will also meet the Experiential Learning requirement via the required 4-credit practicum experience [Practicum in Health (KIN 3xxx) or Practicum in Athletic Training (KIN 3307). Students select the remaining general education courses from a wide variety of offerings outside of their major.

 <u>6. Identify any specialized accreditation or graduate certification requirements for this program</u> and its students.
 N/A

7. If contracting with another institution or non-collegiate organization, provide a copy of the written contract. N/A

8. Provide assurance and any appropriate evidence that the proposed program will provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies. The college catalog includes information on approved programs including all required coursework and total program hours. The catalog also addresses degree and McDaniel Plan (general education) requirements for students. Each student in the health sciences major will have an assigned faculty advisor in the health sciences program. Prior to each registration period, the faculty advisor will meet with the student to review curriculum, course, and degree requirements.

The Schedule of Classes for each semester outlines how classes are offered and the nature of faculty/student interaction—face-to-face, online, or hybrid. The learning management system for the online and hybrid classes is Blackboard. When student accounts are created, students receive an automated email that contains information about Blackboard and the system requirements. This information is in the student's inbox when they first access their email. If specific technological competencies or skills are required for any courses within the approved program, this information is outlined in the course description.

The college website and intranet contain pertinent information about student support services, including academic support, financial aid, tuition and fees, billing and payment, and policies relating to each.

9. Provide assurance and any appropriate evidence that advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available. At McDaniel College, recruitment materials are updated annually. This provides the college flexibility to ensure accuracy.

Additionally, it is the habit of the Office of Admissions to introduce prospective students to departmental faculty when possible. Campus visits include the opportunity to sit in on a class or to meet with faculty (<u>https://www.mcdaniel.edu/undergraduate/admissions/visit-mcdaniel)</u>. <u>Emails written by department chairs are deployed by the Office of Admission and admitted student events</u> feature one-hour sessions that give faculty and current students an opportunity to share details about the major.

The college's website is currently undergoing a complete redesign, but departmental practice in the Office of Communication and Marketing is to review academic program pages monthly for accurate content. Academic pages link to the most recent version of the college's catalog, giving prospective students a clear and accurate view of the program requirements and coursework.

H. Adequacy of Articulation

 If applicable, discuss how the program supports articulation with programs at partner institutions. Provide all relevant articulation agreements.
 N/A

I. Adequacy of Faculty Resources (as outlined in COMAR 13B.02.03.11).

1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faulty member will teach in the proposed program.

Consistent with COMAR 13B.02.03.11, all full-time faculty teaching in the health sciences major hold the highest degrees in their fields. Part-time faculty and adjunct faculty possess at least Master's degrees and relevant certifications in their fields (bringing real-world experience into

| Name | Terminal Degree Title and Field | Academic Title/Rank | Status | Courses Taught in Health Sciences major and credits |
|--------------------|------------------------------------|---------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Craig, Peter | Ph.D., Chemistry | Associate Professor of Chemistry | Full-time faculty | CHE 1103: General Chemistry I (4), CHE 1104: General Chemistry II (4) |
| Ferraris, Dana | Ph.D., Chemistry | Associate Professor of Chemistry | Full-time faculty | CHE 2217: Organic Chemistry I (4), CHE 2218: Organic Chemistry II (4), CHE 2017: Organic Chemistry Lab I (0), CHE 2018: Organic Chemistry Lab II (0), CHE 3205: Chemical Literature (2), CHE 4493: Chemistry Seminar (2) |
| Homan, Stephanie | Ph.D., Chemistry | Assistant Professor of Chemistry | Full-time faculty | CHE 1103: General Chemistry I (4), CHE 1104: General Chemistry II (4), CHE 1001: General Chemistry I Lab (0), CHE 1002: General Chemistry II Lab (0) |
| Laird, Richard | Ph.D., Kinesiology | Associate Professor of Kinesiology | Full-time faculty | KIN 3226: Principles of Strength Development (4), KIN 3200: Writing in Kinesiology (2), KIN 4493: Research Capstone in Kinesiology (2) |
| McCole, Stephen | Ph.D., Kinesiology | Associate Professor of Kinesiology | Full-time faculty | BIO 1104: Human Anatomy Lab (0), BIO 2211: Human Physiology (4), KIN 3xxx: Practicum in Health (4) |
| McKenzie, Jennifer | Ph.D., Kinesiology | Associate Professor of Kinesiology | Full-time faculty | KIN 3200: Writing in Kinesiology (2), KIN 4493: Research Capstone in Kinesiology (2), KIN 3222: Exercise Physiology (4), KIN 3022: Exercise |

the classroom). Full-time faculty and part-time faculty collaborate in teaching, program development, program assessment, and student academic support.

| | | | | Physiology Lab (0) |
|-----------------------|------------------------------------------------------------|------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nilsson, Melanie | Ph.D., Chemistry | Associate Professor of Chemistry | Full-time faculty | CHE 1xxx: Medical Careers 101 (4), CHE 3205: Chemical Literature (2), CHE 4493: Chemistry Seminar (2), CHE 3321: Biochemistry I (4), CHE 3021: Biochemistry I Lab (0) |
| Huang, Cheng | Ph.D., Molecular Genetics | Associate Professor of Biology | Full-time faculty | BIO 1111: Principles of Biology (4), BIO 2203: Genetics (4) |
| Kerwin, Allison | Ph.D., Molecular and Cell Biology | Assistant Professor of Biology | Full-time faculty | BIO 1111: Principles of Biology (4), BIO 2212: Microbiology (4) |
| Martinson, Holly | Ph.D., Behavior, Ecology, Evolution, and Systematics | Assistant Professor of Biology | Full-time faculty | BIO 1111: Principles of Biology (4), BIO 1117: Topics in Biology (4) |
| Staab, Katie | Ph.D., Biological Sciences | Associate Professor of Biology | Full-time faculty | BIO 1111: Principles of Biology (4), BIO 1117: Topics in Biology (4) |
| Marx, Jeffrey | Ph.D., Physics | Professor of Physics | Full-time faculty | PHY 1014: General Physics Lab (0), PHY 1114: General Physics I (4), PHY 1015: General Physics II Lab (0), PHY 1115: General Physics II (4) |
| Mehboudi, Mehrshad | Ph.D., Microelectronics- Photonics | Assistant Professor of Engineering and Physics | Full-time faculty | PHY 1004: Introductory Physics I Lab (0), PHY 1104: Introductory Physics I (4), PHY 1105: Introductory Physics II (4), PHY 1005: Introductory Physics II Lab (0) |
| Mian, Apollo | Ph.D., Physics | Professor of Physics | Full-time faculty | PHY 1014: General Physics Lab (0), PHY 1114: General Physics I (4), PHY 1015: General Physics II Lab (0), PHY 1115: General Physics II (4) |

| Chalk, Holly | Ph.D., Counseling | Associate Professor | Full-time faculty | PSY 1106: |
|-------------------|----------------------------------------------------------|--------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Psychology | of Psychology | , | Introduction to Psychology (4), PSY 2211: Abnormal |
| Madean Stanbania | Ph.D., Child | Professor of | Full-time faculty | Psychology (4) PSY 2209: |
| Madsen, Stephanie | Psychology | Psychology | Full-time faculty | Developmental Psychology (4) |
| Lemke, Debra | Ph.D., Sociological Theory | Professor of Sociology | Full-time faculty | SOC 1104: Introduction to Sociology (4) |
| Seidel, Ethan | Ph.D., Monetary Theory, Public Finance | Professor of Business Administration | Full-time faculty | STA 2215: Statistics (4) |
| Bryant, Angela | MPAS; Certified physician assistant | Lecturer | Part-time faculty | KIN 2325: Nutrition (4) |
| Burley, Heather | Ph.D., Animal Science | Lecturer | Part-time faculty | BIO 1101: Principles of Biology Lab (0), BIO 1117: Topics in Biology (4), BIO 2003: Genetics Lab (0) |
| Lippy, Sarah | M.S., Psychology | Lecturer | Part-time faculty | PSY 1106: Introduction to Psychology (4), PSY 2211: Abnormal Psychology (4) |
| Petrie, David | M.S., Biomechanics | Lecturer | Part-time faculty | BIO 1120: Human Anatomy (4), KIN 3330: Biomechanics (4) |
| Polen, Michael | Ph.D., Chemistry | Lecturer | Part-time faculty | CHE 1103: General Chemistry I (4), CHE 1104: General Chemistry II (4), CHE 1001: General Chemistry I Lab (0), CHE 1002: General Chemistry II Lab (0) |
| Porter, Lindsey | M.S., Exercise Science; Certified athletic trainer | Lecturer | Part-time faculty | BIO 2011: Human Physiology Lab (0) |
| Nibbelink, Gregg | M.S., Sports Science; Certified athletic trainer | Coach-Lecturer | Part-time faculty | KIN 2225: Prevention and Care of Athletic Injury (4), KIN 3306: Advanced Athletic Training (4) |
| Roby, Stephanie | M.S., Psychology; Certified athletic trainer | Coach-Lecturer | Part-time faculty | KIN 2001: Medical Terminology (4), KIN 3307: Practicum in Athletic Training |

| | | | | (4) |
|----------------|-------------------------------------------------------------------------|-----------------|-----------------|---------------------------------------------------|
| Kephart, Linda | M.S., Administration and Supervision; M.A., Physical Education | Adjunct faculty | Adjunct faculty | KIN 2215: Adapted Physical Education (4) |
| Seidel, Robert | M.L.A. | Adjunct faculty | Adjunct faculty | PHI 1105: Contemporary Issues in Ethics (4) |

2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in:

a) Pedagogy that meets the needs of the students

McDaniel College prides itself on its excellent instruction and therefore provides many forms of faculty development to support professors in all stages of their careers. New faculty participate in a year-long orientation program of monthly professional development events which include a focus on evidence-based practices. Every August, new and returning faculty attend a day-long faculty development retreat which includes concurrent sessions on various topics including diversity, students with learning differences, evidence-based research about teaching and learning, best practices for hybrid and online teaching, handling challenging classroom situations, etc. Throughout the academic year, we offer 1 to 2 faculty development sessions each month which are open to all faculty. Each year, we run a faculty book group/learning community which approximately one third of our full-time faculty participate in; the book is always one which highlights evidenced-based practices. In addition to the group-based forms of faculty development described above, the institution also provides one-on-one support to faculty who would like to receive formative feedback on their teaching through class observations and/or moderated focus groups with their students.

b) The learning management system

The Department of Instructional Design and Technology at McDaniel College offers the following resources to support faculty use of Blackboard: (a) 60-minute workshops throughout the year on Blackboard Basic, Intermediate, and Advanced features; (b) one-on-one Blackboard training for all new faculty members and anyone else who requests it; (c) a range of course design templates that enable/encourage backward design, outcome alignment, authentic assessment, appropriate rubrics, and a range of student-centered pedagogical methods; and (d) professional development lunch events about matters of instructional design.

c) Evidenced-based best practices for distance education, if distance education is offered.

All faculty who teach an online course are required to first take BPO 100: *Best Practices in Online Teaching and Learning*, a four-week (28-hour commitment) online course. By completing the course, participants (a) gain the benefit of the experience, research, and knowledge from those individuals and institutions who have been offering online instruction for many years, (b) develop specific strategies for maintaining social presence, teaching presence, and cognitive presence in an online classroom, and (c)

develop specific strategies for facilitating collaboration, reflection, and learner-centered pedagogies. BPO 100--a constructivist, discussion-based class--is informed by the Community of Inquiry framework and standard best practices as measured by Quality Matters.

J. Adequacy of Library Resources (as outlined in <u>COMAR 13B.02.03.12</u>).

<u>1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program.</u>

McDaniel College's Hoover Library contains approximately 375,038 book volumes, access to 87 different databases, 77,676 titles of media, and 84,516 serials. The Hoover Library website (<u>http://hoover.mcdaniel.edu</u>) includes Research Guides—general and course specific—that assist students with identifying appropriate resources for academic writing. The guides also provide general assistance with the research process by covering topics such as source selection and evaluation.

The College's print collection is available for loan to all McDaniel College students, faculty, staff, and other community members. The library's website provides remote access to the online catalog and electronic databases so that students may access the library's resources from wherever they are working. No-fee interlibrary loans and document delivery from other institutions supplement the collection in support of research and classroom projects.

As part of the Carroll Library Partnership, Hoover Library shares an online catalog with Carroll County Public Library and Carroll Community College. Students, faculty, and staff may use, request, and check out titles from any of the three collections. This arrangement makes an additional 700,000 volumes available to the McDaniel College community. McDaniel College students and faculty also have borrowing privileges at participating libraries at institutions in the Maryland Independent Colleges and Universities Association (MICUA), the Baltimore Area Library Consortium (BALC), and the Associated College Libraries of Central Pennsylvania (ACLCP).

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment (as outlined in <u>COMAR</u> <u>13B.02.03.13</u>)

1. Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences. Nearly all the courses in this proposed program are offered as part of other majors or minors on campus, thus we do not expect a significant impact on the College's facilities, infrastructure, and instructional equipment. Classrooms, offices, laboratories, and meeting spaces are already established and should be adequate to support the program's faculty, students, and staff.

The Department of Kinesiology is in Gill Physical Education Learning Center. In 2018, the facility underwent a \$6.6 million renovation, which expanded and modernized classrooms and laboratories and maximized underutilized space. A kinesiology seminar room, 9 faculty offices, a work room, and 3 updated laboratories for human performance, neuromuscular performance, and human anatomy and physiology were constructed, adding more than 12,000 square feet to

the existing Gill Center. Three multipurpose classrooms were also built within the mezzanine level of Gill Gymnasium, bringing the total number of classrooms in Gill Center to 5. Besides these spaces, the Gill Center also houses 2 gymnasiums, a dance studio, a fitness center, locker rooms, 2 training/rehabilitation rooms, an equipment room, several storage spaces, and offices and meeting spaces for the Department of Athletics. The seminar room, laboratories, and classrooms are equipped with live internet connection, LCD projectors, and computers. Smart Boards are available in the laboratories, seminar room, and mezzanine classrooms. Equipment in the human anatomy and physiology laboratory include an Anatomage 3-D virtual dissection table, human skeleton, various bones and anatomy models, anthropometers, goniometers, microscopes, an electrocardiogram, a pulmonary spirometer, blood pressure cuffs, ambulatory blood pressure cuffs, and a reaction time apparatus. An isokinetic dynamometer, free weights, bar bells, lifting platforms, and a force plate are available for use in the neuromuscular laboratory. Equipment in the human performance laboratory include a BodPod, skinfold calipers, stadiometers and scales, a metabolic cart, glucose and lactate analyzers, cycle ergometers, treadmills, and blood pressure cuffs. The training/rehabilitation rooms are equipped with whirlpools, cold therapy devices, electrotherapy and ultrasound modalities, padding and protective equipment, an anti-gravity treadmill, cycle ergometers, resistance bands, various supplies for first aid, taping and wrapping, etc.

The Chemistry, Biology, Physics, Sociology, and Math Departments operate in Eaton Hall, Lewis Hall of Science and Lewis Recitation Hall which includes 40 offices, 15 classrooms, 20 laboratories, and 6 multi-use conference/meeting spaces. The Psychology Department is located in Merritt Hall and typically uses 8 offices, 6 classrooms, 7 laboratories, and 1 seminar/conference room.

The Department of Psychology is located in Merritt Hall. The Psychology suite includes 8 offices for faculty and staff, a seminar/conference room, a student lounge/library, and a work room. Laboratories and/or research spaces for the following areas of Psychology are available in Merritt Hall: Learning (animal lab), Cognitive, Counseling, Neuroscience (animal lab), Social, and Developmental. There are 11 classrooms in Merritt Hall, and all classrooms are equipped with live internet connection, LCD projectors, and computers. Smart Boards are available in several classrooms on each floor.

2. Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to:

a) An institutional electronic mailing system, and

b) A learning management system that provides the necessary technological support for distance education

All McDaniel students are provided with email accounts. The institution uses Blackboard for course delivery, community engagement, and content management for all face-to-face and online courses. Our Blackboard system is fully integrated with our Student Information System (SIS), such that (a) all students and faculty automatically have Blackboard accounts, (b) all classes are automatically built, and (c) all enrollments are automatically managed via SIS integration. Instructors and students utilize iDevices, Adobe Connect, Ensemble, video from Hoover Library databases, and fast Internet connections. The Student Academic Support Services (SASS) office provides on-loan assistive technology to students. The Instructional Technology Office provides training and support for faculty and students using any technology used in the course. The department has adequate information technology resources to support faculty and students.

L. Adequacy of Financial Resources with Documentation (as outlined in COMAR 13B.02.03.14)

1. Complete Table 1: Resources and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds. Rationale for enrollment projections:

New student enrollment projections embedded in our strategic enrollment plans are developed by the Vice President for Enrollment. They are based on the VP's review of historical enrollment data in similar fields at McDaniel College, the size of the potential market in primary recruitment areas for the college, and enrollment trends nationally.

Rationale for reallocated funds

Last year, the College underwent a faculty-led review in response to a request from the McDaniel Board of Trustees to identify academic programs for possible reinvestment, as well as potential restructuring. The goal of this review was to strengthen the academic program of the College by aligning our academic offerings with current and prospective students' demonstrated interests.

In the spring of 2019, the Board of Trustees unanimously approved the recommendations that would suspend enrollment for future students in the following undergraduate majors: Art History, Religious Studies, French, German and Music. Minors in German, Music and Latin will also no longer be offered. These programs were selected, in large part, due to relative underenrollment compared with other programs at the College.

The following chart indicates the number of students who were in the pipeline and in our prospective student pool as of November of 2018:

| Program | 5-yr avg degrees | Current majors | Current minors | F19 Admissions projections Apps→Admits→Yield |
|----------------------------------------------------------------|---------------------|-------------------|-------------------|----------------------------------------------------------------------|
| Art History Major (minor retained) | 4.6 | 4 | 4 | N/A: Art History not in survey General Art = 6 students |
| Religious Studies Major (minor retained) | 1.6 | 7 | 10 | 8 apps → 5 admits → 1 student |
| French Major (minor retained) | 3.8 | 8 | 6 | 9 apps → 6 admits → 1 student |
| German Major and Minor | 2.2 | 12 | 5 | 2 apps → 1 admits → O students |
| Music Major and Minor (select music activities retained) | 3.2 | 13 | 8 | 32 apps → 21 admits → 4 students |

Any prospective students who indicated an interest in these majors were notified of the program suspensions in advance of making their decision to enroll. The College guaranteed that all students who had declared a major in an impacted program would be able to graduate with their intended degree. McDaniel students were allowed to declare any major through the end of this spring semester regardless of whether there was a recommendation to suspend. And in every case except for German and Latin, courses will still be taught in these disciplines and students will be able to use these courses to fulfill their core education (McDaniel Plan) requirements. Specifically related to Music, select performance opportunities that have existed for all students, regardless of major, will still be available, including choir and band, as well as music lessons. Students can still select from five second languages: Arabic, ASL, Chinese, French, and Spanish.

Because of our commitment that all students in an affected major can graduate with their intended degree, existing faculty may continue to teach in the affected programs of study for a number of years. The College is closely following American Association of University Professors (AAUP) guidelines.

The recommendations approved by the board resulted in nearly a million dollars worth of savings over the next five years, 100% of which will be re-invested to strengthen our academic programs. Investments will support the reorientation of existing programs to better meet the needs of the 21st century, and to create new programs that will expand the curricular offerings of the College. This was not a budget cut.

The Board also voted to investigate these strategic re-investments in four categories of strong and growing interest to current and prospective students: Health Sciences/STEM, Business and Technology, the Liberal Arts core curriculum, and professional certificates.

None of these changes will adversely affect our ability to deliver our hallmark McDaniel Plan and McDaniel Commitment. Our students will continue to experience a broad education in the liberal arts and sciences while delving deeply into their program areas of special interest. 2. Complete Table 2: Program Expenditures and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each expenditure category. FTE & operating budget calculations were based upon existing departments which will contribute at least 25% of the courses in the proposed major. Using only those highcontributing departments, FTE & operating budgets were then calculated based on proportionate contributions.

M. Adequacy of Provisions for Evaluation of Program (as outlined in COMAR 13B.02.03.15).

<u>1. Discuss procedures for evaluating courses, faculty and student learning outcomes.</u> Courses are evaluated via online student course evaluations which are reviewed by department chair and the individual faculty member at the end of each semester; these evaluations include quantitative and qualitative components. Programmatic student learning outcomes are assessed via direct and indirect measures under the guidance of the standing Academic Assessment Committee as described in G.3

Faculty teaching in the program will be evaluated in accordance with the faculty evaluation procedures of McDaniel College specified in the McDaniel College Faculty Handbook. At the time when franchised faculty are eligible for reappointment, tenure, promotion, or periodic review, the faculty member critically evaluates his or her performance as a teacher, reviews course evaluations, and provides evidence of effective teaching, service to the college, and scholarly and/or professional activity. The 5 elected members of the Faculty Affairs Committee review the materials submitted by the faculty member as well as the student course evaluations, rate the candidate's performance, and make a recommendation to the Provost for employment action. Adjunct faculty are reviewed by their department chair on a regular basis; adjunct faculty are evaluated based on their course evaluations and other materials they may submit to document their teaching effectiveness.

2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

In addition to the annual assessments of student learning outcomes overseen by the Academic Assessment Committee described earlier (see G.3), the program will engage in a periodic program review. The program review process is overseen by the Academic Planning Committee (APC) – a standing committee that is part of our faculty governance system. Faculty who teach in the program will prepare a self-study that includes data about course and program enrollment, faculty professional activity, student retention/graduation rates, assessments of student learning outcomes, alumni outcomes and satisfaction, a comparison of the program to similar programs at other colleges, nationwide trends in the discipline, an evaluation of the current strengths and challenges of the program, and a five-year strategic plan. The self-study and make an on-site visit to further evaluate the program's educational effectiveness and make recommendations based for improvement. The last step of this year-long review process is the revision of the five-year plan to address any weaknesses or areas of improvement.

The student body is surveyed using several different methods. Annually, we complete the Higher Education Data Sharing (HEDS) Consortium's "Senior Survey," which asks seniors to report on five dimensions of their undergraduate experience: good teaching and high-quality Interactions with faculty, challenging assignments and high faculty expectations, interactions with diversity, growth on intellectual outcomes, and growth on civic outcomes. Secondly, we use the Student Satisfaction Inventory (SSI) from Ruffalo Noel Levitz, which measures student satisfaction and which issues are most important to them. Finally, we also utilize the National Survey of Student Engagement (NSSE), which looks at engagement indicators and high-impact practices. With each of these assessment methods, data can be disaggregated to a departmental/programmatic level. These reports are provided to department chairs for integration into their own assessment plans and departmental reviews as a measure of student satisfaction.

Regarding cost effectiveness, McDaniel College engages in a strategic planning process to determine the viability of its programs. This process involves developing a unique Strategic Enrollment Plan (SEP) for the program. As defined by Ruffalo Noel Levitz, Strategic Enrollment Planning is "a data-informed process that aligns an institution's fiscal, academic, co-curricular, and enrollment resources with its changing environment to accomplish the institution's mission and ensure the institution's long-term enrollment success and fiscal health." At McDaniel, this means each proposed academic program is reviewed through the lens of not only curricular innovation and mission alignment, but also program demand, departmental costs, investment needs, and long-term viability. This data is reviewed by the Provost and a faculty committee whose focus is strategic planning and the budgetary health of the institution. This program was developed with the assumption that the program could continue to be sustained through existing institutional resources, but with plans for increased investments when the expected program growth occurs.

N. Consistency with the State's Minority Student Achievement Goals (as outlined in <u>COMAR</u> <u>13B.02.03.05</u>).

<u>1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.</u>

McDaniel College is committed to minority student access and success. In accordance with this commitment, the College has articulated cultural diversity goals which include general education courses related to cultural diversity, co-curricular student programming, and faculty and staff development regarding working with a diverse student body.

Students of all ages, interests, professions, and backgrounds are encouraged to apply for undergraduate and graduate study. Fall enrollment data from 2018 show that 28% of our student population identified as students of color, a number that has steadily increased since 2010. The majority of students at McDaniel College (65%) come from the State of Maryland, and 26% are considered first-generation college students. McDaniel College actively recruits prospective students through campus events and career fairs throughout the mid-Atlantic region.

All the students in the proposed program will complete general education courses which have been designed to educate students about different forms of diversity. Students will complete at least one multicultural course which will give students an understanding of the cultural pluralism of American society. Multicultural courses focus on the cultures and experiences of diverse groups in the United States that have been historically subordinated or marginalized and defined by such categories as race, gender, sexuality, class, religion, and disability. Students will complete at least two international courses, one of which must focus on a non-western region. International courses examine the perspectives and customs of cultures outside the U.S. or the relationship between the U.S. and world cultures. In addition to these general education course, our orientation program for first year students includes 3 sessions focused on diversityrelated issues relevant to college students and those sessions span from the summer orientation through the end of the first semester so that we can address diversity education at multiple stages of their first year.

Many co-curricular, cultural activities are sponsored by the Office of Diversity and Inclusion, while other activities are initiated by our many student organizations which provide social support and co-curricular events for students. (e.g., the Black Student Union, the Gender Sexuality Alliance, the Hispano-Latinx Alliance, the Asian Community Coalition, the Muslim Student Association, and the Jewish Student Union).

The faculty members who will teach in the proposed program participate in multiple professional development events focused on teaching and supporting students from diverse groups. Every August, McDaniel College holds a faculty development retreat and requires that faculty attend at least one session focused on diversity-related issues. Our newest full-time faculty members participate in a year-long orientation series which includes sessions about teaching our diverse student body as well. In addition, throughout the academic year, professional development sessions focused on diversity-related issues are open to all faculty and staff.

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

1. If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.

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

P. Adequacy of Distance Education Programs (as outlined in COMAR 13B.02.03.22)

<u>1. Provide affirmation and any appropriate evidence that the institution is eligible to provide</u> <u>Distance Education.</u>

While we are eligible to provide Distance Education as an institution at the Graduate level, this proposed Undergraduate program will not be offered in Distance Education format.

2. Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.

While we are eligible to provide Distance Education as an institution at the Graduate level, this proposed Undergraduate program will not be offered in Distance Education format.

| Resource Categories | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Narrative |
|--------------------------------------------------|-------------|--------------|--------------|--------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Reallocated Funds | \$78,000.00 | \$80,340.00 | \$82,750.00 | \$163,233.00 | \$168,130.00 | |
| 2. Tuition/Fee Revenue (c + g below) | \$0.00 | \$91,036.00 | \$210,975.93 | \$386,320.32 | \$571,995.51 | |
| a. Number of F/T Students | 0 | 4 | 9 | 16 | 23 | Because we did not market this new major when recruiting students for Fall 2019, any students who might declare this major in Year 1 will be already- enrolled students. Therefore, we are projecting no NEW students and no additional tuition revenue during Year 1 attributed to this program. |
| b. Annual Tuition/Fee Rate | \$0.00 | \$22,759.00 | \$23,441.77 | \$24,145.02 | \$24,869.37 | |
| c. Total F/T Revenue (a x b) | \$0.00 | \$91,036.00 | \$210,975.93 | \$386,320.32 | \$571,995.51 | |
| d. Number of P/T Students | 0 | 0 | 0 | 0 | 0 | We have so few part-time undergraduates that we are not including part-time students in our projected enrollments. |
| e. Credit Hour Rate | 0 | 0 | 0 | 0 | 0 | |
| f. Annual Credit Hour Rate | \$1,391.89 | \$1,433.07 | \$1,476.07 | \$1,520.35 | \$1,565.96 | |
| g. Total P/T Revenue (d x e x f) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| 3. Grants, Contracts & Other External Sources | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| 4. Other Sources | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| TOTAL (Add 1 – 4) | \$78,000.00 | \$171,376.00 | \$293,725.93 | \$549,553.32 | \$740,125.51 | |

| TABLE 2: PROGRAM EXPENDITURES: | | | | | | |
|-----------------------------------------------------|--------------|-------------|-------------|--------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expenditure Categories | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Narrative |
| 1. Faculty (b + c below) | \$78,000.00 | \$80,340.00 | \$82,750.00 | \$163,233.00 | \$168,130.00 | 1 new faculty in year 1 and 1 in year 4 |
| a. Number of FTE | 8.5 | 8.5 | 8.5 | 9.5 | 9.5 | Projected new students: $Y2 = 4$ students, $Y3 = 9$, $Y4 = 16$, $Y5 = 23$, add new faculty for every 15 new students. |
| b. Total Salary | \$60,000.00 | \$61,800.00 | \$63,654.00 | \$125,564.00 | \$129,331.00 | Assumes 3% annual increase |
| c. Total Benefits | \$18,000.00 | \$18,540.00 | \$19,096.00 | \$37,669.00 | \$38,799.00 | Assumes 3% annual increase |
| 2. Admin. Staff (b + c below) | 0 | 0 | 0 | 0 | 0 | |
| a. Number of FTE | 0 | 0 | 0 | 0 | 0 | We do not need to hire new administrative staff because the department within which this major will be offered has sufficient staffing. |
| b. Total Salary | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| c. Total Benefits | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | |
| 3. Support Staff (b + c below) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$41,100.00 | |
| a. Number of FTE | 1 | 1 | 1 | 1 | 2 | We currently have 1 support staff for labs and will add 1 in Year 5. |
| b. Total Salary | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$30,000.00 | |
| c. Total Benefits | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$11,100.00 | |
| Technical Support and Equipment | \$26,500.00 | \$0.00 | \$0.00 | \$2,500.00 | \$0.00 | Computer for new faculty members (\$2,500 each) and metabolic cart (\$24k). All other technical support and equipment will be covered by existing resources in the Kinesiology, Biology, & Chemistry Departments. |
| 5. Library | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | Necessary resources are already available through existing databases. |
| 6. New or Renovated Space | \$0 | \$0 | \$0 | \$0 | \$0 | |
| 7. Other Expenses | \$0.00 | \$1,844.00 | \$4,149.00 | \$7,376.00 | \$10,603.00 | Based on current operating budgets, the cost per student in Biology = \$484, in Chemistry = \$994, and in Kinesiology = \$62. Based on the proportionate contributions of each department to this major (26%/31%, /43%), the cost per student = \$461 X new student projections. |
| TOTAL (Add 1 – 7) | \$104,500.00 | \$82,184.00 | \$86,899.00 | \$173,109.00 | \$219,833.00 | |