Proposal for an Undergraduate Program in Health Science

The Bachelor of Science in Health Science (BSHS) CIP 510000

The Richard Stockton College of New Jersey

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I. Objectives: The Bachelor of Science in Health Science

A. Nature and Focus of the Program:

We propose the development of an undergraduate degree in the Health Sciences, the Bachelor of Science in Health Science (BSHS). At this time, there is no undergraduate degree available at Stockton College or at a public institution in South Jersey to that is specifically designed to focus on the integrated approach to the study of health and disease including preparing students for a variety of careers in the public and private health service sectors.

The philosophy of an undergraduate degree in Health Sciences is to provide a curriculum that encompasses a foundation in the study of all health and disease that intersects that intersects with the foundations required for quality delivery of human services. Such a curriculum includes traditional natural science coursework combined with training and experience in the human service component of health care. In addition, the curriculum should provide a venue for career exploration and provide an undergraduate degree that is specialized enough to allow students career options in the healthcare industry or preparation for graduate education yet general enough to allow flexibility for individual student choices an preferences. Such a foundational degree should be both multi-disciplinary and interdisciplinary in nature reflecting current best practice in healthcare.

The current School of Health Sciences (SHS) at the Richard Stockton College of New Jersey was established in the 2008-2009 academic year. Current undergraduate programs in the SHS include: Nursing (NRS), Public Health (PUBH), and Speech Pathology and Audiology (SPAD). Current graduate programs in the SHS include: Nursing (NURS), Occupational Therapy (OCTH), and Physical Therapy (PHTH). The Master of Science in Communication Disorders (MSCD) is scheduled to accept students in September 2011.

A pivotal aim of the proposed BSHS is to provide an "academic home" for undergraduate students interested in the health sciences. Stockton is a liberal arts institution which provides education in the Art and Humanities, Social and Behavioral Sciences, Natural Science and Mathematics, and professional courses of study including Business, Education, and the Health Professions. The BSHS is designed to provide both a liberal arts and a pre-professional education. In addition to engaging in the General Studies curriculum students enrolled in the BSHS would be provided with a strong foundation in the Health Sciences. The BSHS will also provide experiential and service learning opportunities as well as on-site training through internships and practica.

The BSHS would prepare students for employment in a number of venues such as: health care delivery systems (proprietary and non-profit), health insurance companies, pharmaceutical companies, assisted living communities, and health service research organizations. Undergraduates receiving the degree would be prepared to find an entry level position in the health services sector, gain admission to a graduate program for which they prepared and/or be prepared to advance in their current health care positions.

B. Alignment with College Mission

The proposal for the BSHS is aligned with the Mission Statement of the College: (http://intraweb.stockton.edu/eyos/page.cfm?siteID=201&pageID=38). Specifically, the curriculum of the BSHS will contribute to the following components of the College's Mission:

• To help our students develop the capacity for continuous learning and the ability to adapt to changing circumstances in a multicultural and interdependent world by insisting on breadth, as well as depth, in our curriculum. We believe that the breadth inherent in an interdisciplinary approach to liberal education both prepares students for inevitable career changes, and enriches their lives.

The Curriculum of the BSHS will emphasize critical thinking, information literacy, and additional skills required by students to become lifelong learners. The BSHS curriculum is designed to be interdisciplinary, incorporating natural sciences and mathematics, social and behavioral sciences, and professional studies combined with the offerings of the General Studies program. As the BSHS includes focus on the human service component of healthcare, cultural competence and multicultural education are essential components of the curriculum. In addition, the course of study of the BSHS is designed to be specific enough for students seeking admission to graduate programs in health care (e.g. Physical Therapy, Occupational Therapy, Audiology) yet general enough to provide the basis for career exploration and future career changes.

• Stockton is committed to the positive development of southern New Jersey. Through research and community service, we actively seek to take advantage of and to improve the unique physical and human environment in which the College is located.

As the BSHS will provide opportunities for faculty/student collaboration in research and service learning as well as internship experiences in healthcare, the community of South Jersey will benefit from expanded direct and indirect services.

Through a rigorous, interdisciplinary curriculum, the BSHS supports to the *Learning* and *Engagement* themes of the College's current strategic plan. In addition, the program will promote *Sustainability* through development of alternative modes of instructional delivery that promote improved efficiency and productivity. The study of international heath policies and practices will engage students with the *Global Perspectives* theme.

II. Need

A. National Data

According to the United States Bureau of Labor Statistics (http://www.bls.gov/oco/cg/cgs035.htm)

- As one of the largest industries in 2008, healthcare provided 14.3 million jobs for wage and salary workers.
- Ten of the 20 fastest growing occupations are healthcare related.
- Approximately 26 % of all new jobs created will be in the healthcare and social assistance category.
- Healthcare will generate **3.2 million new wage and salary jobs** between 2008 and 2018, more than any other industry, largely in response to rapid growth in the elderly population.

The shift from "goods-providing" to "service-providing" industries in the Unites States' economy will benefit college graduates of programs, such as the proposed BSHS, who will be qualified for the variety of positions that fall under the general classifications of

- Health information technology
- Health support services entry level administrative

Examples of settings in which graduates of a BSHS program may be employed at an entry-level include the following:

(Source: Tennessee State University: http://www.tnstate.edu/interior.asp?mid=3823)

- Community Health Agencies
- Business and Educational Organizations
- Public Health Departments
- Nursing Homes
- Retirement Residences
- Home Health Agencies
- Wellness/Fitness Centers
- Schools
- Hospitals
- HMOs
- Medical Group Practices
- Insurance Companies
- Alcohol/Drug Programs

The Occupational Information Network (O*NET) is supported by US Department of Labor/Employment and Training Administration (http://www.onetcenter.org/overview.html). According to this source, a course of study such as the proposed BSHS would prepare a graduate to assume an entry-level position in the following high-growth areas:

- Compensation, benefits and job analysis specialists
- Medical office managers
- Human resources for health services organizations
- Healthcare support providers (such as patient advocates)

A degree such as the BSHS would also provide students with the prerequisite coursework for application to a graduate program in fields such as:

- Audiology
- Occupational Therapy
- Physical Therapy
- Speech-language Pathology

A. State Data

Key facts reported by the State of New Jersey Department of Labor and Workforce Development (http://lwd.dol.state.nj.us/labor/index.html) with regard to occupational projections include:

- Ninety percent of new jobs will be in the educational and health services, professional and business services, and leisure and hospitality.
- Health care can also be included in the professional and business services.
- Healthcare will continue to grow but at a decreased rate of growth (from 2.7 to 1.4)
- Jobs with higher entry requirements (such as a Bachelor's degree or graduate degree) will grow faster than positions with lower entry requirements (such as a certificate or an Associate's degree).

According to the State of New Jersey Commission on Higher Education inventory of programs (http://www.state.nj.us/highereducation/Program_Inventory/index.html) there is currently no institution of higher learning in Southern New Jersey that offers a Bachelor of Science in Health Science (BSHS). The two programs which are geographically closest to Stockton (70 or more miles to the north) are private institutions (Monmouth University and Seton Hall University). William Paterson University, a state institution, offers a BSHS but is located in North Jersey over a hundred miles from Stockton. The proposed BSHS at Stockton would thus be the only BSHS in South Jersey and to the best of our knowledge, the only BSHS in the state with a communication disorders track.

A table summarizing programs offered at other New Jersey Institutions as well as affiliation agreements among New Jersey City University, University of Medicine and Dentistry of NJ and Thomas Edison State College may be found in Appendix A.

A search of American Institutions of Higher Learning as described in *Barron's 2009 Profile of American Colleges* resulted in identifying the following information for three adjacent states:

o **Pennsylvania:** Six colleges and/or universities offer the BSHS degree. An internet search resulted in finding only one of the six, Philadelphia University offering a BSHS with a generalist track. A BSHS with a Communication

Disorders (CD) track such as is included in the present proposal was not identified.

- Occupational Therapy with a generalist track, but not the CD track. The Communication Disorders track is located within the Linguistics and Cognitive Sciences program.
- Connecticut: Both Quinnipiac University and the University of Hartford offer a BS in Health and Science Studies and a BS in Health Science with a generalist track, but not the CD track.

C. Local Data

Using data from the State of New Jersey Department of Labor and Workforce Development Long-Term Occupational Employment Projections for Atlantic County, the following careers in healthcare are expected to have growth opportunities through 2018:

(source: http://lwd.state.nj.us/lpaapp/DataTools.html?newPage=OccProjInstant)

- Health Technologists and Technicians (15 %)
- Medical Records and Health Information Technicians (17.6%)
- Radiologic Technologists and Technicians (15.7%)
- Respiratory Therapists (17 %)
- Audiologists (33.3 %)
- Speech-Language Pathologists (28%)
- Occupational Therapists (26.7%)
- Physical Therapists (29.8%)
- Registered Nurses (20.8%)

Needs Assessment:

In developing the concept for the BSHS degree, the faculty sought input from the following constituents during the 2009-2010 academic year: current Stockton students, high school and community college students, community college faculty and program directors, and local employers in the healthcare industry. Data were obtained through analysis of existing reports, interviews, and surveys.

Internal Data

Data obtained from the undergraduate Office of Admissions for Fall 2010 and from the Office of Graduate and Continuing Studies for Fall 2009 through Fall 2011 provided insight into the student population that might be interested in this degree. In the fall of 2010, over 200 students applied to the Nursing program. The current undergraduate BSN (Bachelor of Science in

Nursing) is highly competitive and is able to accommodate only 36 incoming students per year. The remaining applicants to the BSN may have been candidates for study in the BSHS which would offer an alternative course of study in the Health Sciences.

For Fall Semester 2011, to date, the College has received 146 applications for the Doctorate in Physical Therapy Program and 171 applications for the MSOT Program. Both of these programs are also highly competitive and are able to accept only about 20% of all applicants. The BSHS would potentially provide a strong foundational program for students seeking admission to such highly competitive programs. In addition, having achieved a degree in Health Sciences would provide a career alternative for students who wish to have career options as alternatives to graduate study in these areas. Career options would include those previously motioned from O*Net including: compensation, benefits and job analysis specialists; medical office managers; human resources for health services organizations; and healthcare support providers (such as patient advocates).

According to Institutional Research, total enrollment (graduate and undergraduate) in the School of Health Sciences (SHS) for Spring semester 2011 increased by 21% over Spring semester 2010 and by 34% from the Spring semester of 2009. In order to accommodate visitors at College Open Houses during 2010-2011, the School of Health Sciences' presentation has been housed in the Alton Auditorium (the largest lecture hall on the presently existing campus with seating for 250) in order to accommodate all guests.

Interest Survey

During the 2008-2009 and 2009-2010 academic years, data were also collected using a web-based survey. The following groups participated in the survey:

- Prospective and currently enrolled DPT students
- Incoming freshman and transfers who attended summer orientation sessions

Table 1 summarizes the responses from prospective and currently enrolled DPT students. Out of the 41 students in this group 100% reported receiving their undergraduate degree at Stockton. Seventy-three percent (73%) responded that they would have been *very likely* or *extremely likely* to have enrolled in a BSHS program had it been available.

Table 1. Response Data for BSHS Interest Survey: Currently Enrolled and Perspective DPT Students (N=41)

Question: If the BSHS had been available to you as an undergraduate, would you have enrolled?

Rating	Percent Responding
Not at all likely	0%
Somewhat likely	10%
Likely	7%
Very likely	39%
Extremely likely	34%

Table 2 summarizes of the responses gathered from incoming students during summer 2010 orientation. The survey was available to all incoming students (not just those registering for Health Sciences programs). Approximately one quarter of all students responding to the survey were *very interested* to *extremely interested* in the BSHS.

Table 2. Response Data for BSHS Interest Survey Incoming Students (Summer 2010)

Freshmen: 93% Transfers 7%

(N=701)

Question: How interested would you be to choose an undergraduate four-year Bachelor of Science in Health Sciences degree that would assist you in preparing for a health career?

Student Group	Percentage of students indicating "Very likely" or "Extremely likely" in the BSHS degree
Fall 2010 Freshman	25%
Fall 2010 Transfers	28%

Community Employers in Health Care

During development of the concept for the BSHS, a task force was assembled which included: Stockton faculty, Stockton administrators, community college faculty and program directors, and local employers in the healthcare industry. Task force members conducted interviews with representatives from selected prospective employers and community colleges. The representatives interviewed were all community members of the BSHS Task Force with the

exception of the interviewee from Bancroft NeuroHealth. Task Force members who provided interview data included:

Richard Lovering VP of Human Resources, AtlantiCare Alan Beatty VP of Human Resources, Shore Memorial

Carol Mohrfeld Department Chair of Nursing, Atlantic Cape Community College

Megan Gargiulo Atlantic Cape Community College

Betty Burke Shore Memorial Hospital

The individuals interviewed represented the two largest healthcare employers in Atlantic County and a very large employer in the Cherry Hill Area.

In addition, Ben Castillo, Dean of Social Sciences and Human Services as well as Colleen Manzetti, Assistant Dean of Nursing from Ocean County College were interviewed. The text of the interviews may be found in Needs Assessment portion of the Appendix.

Data obtained from the interviews provide support for the employability of BSHS graduates. Representatives from Shore Memorial and Bancroft both agree that there is a strong demand for workers with the BSHS degree. Graduates would be qualified to apply for administrative and executive positions. They further described the BSHS as a "spring board degree "which would provide the necessary background to prepare students to work in a variety of health care settings. In addition, employees who are currently employed as technicians or technologists (currently holding certificates or two-year degrees) would have increased opportunities for advancement once completing a four-year degree such as the BSHS.

The following responses from the interview with Richard Lovering, VP of Human Resources and Organizational Development at AtlatiCare were collected by Dr. Laurie Shanderson, Assistant Dean of Health Sciences. These responses are the <u>highly salient</u> and thus are presented.

- 1. **Is there a demand for this (BSHS) degree?** Mr. Lovering believes there is a strong need for this degree and for those who earn the degree. It provides non-clinical career options. The degree is a "spring board" for those seeking leadership positions. Acquiring skills in an academic setting is necessary for the new leadership.
- 2. Which groups should be targeted? Which groups at AtlantiCare may be interested? Individuals who have earned Associates degrees in clinical areas will have the opportunity to complete the BSHS. Additionally, nurses, those very talented with service skills, and those displaced by the casino industry may want to earn this degree. In a field where credentials count, the BSHS is very important.
- 3. What other suggestions do you have for us? It is important to understand that the next 10 years of health care reform will require a new group of leaders who will be able to deal with the changes in the structure, delivery, and financing of the healthcare system. The new group of leaders will need to be equipped to manage the challenges and demand of both the field and market.

Mr. Lovering recommends including a technology focus. As innovation will lead the change, the students should be exposed to innovation and technology in order to develop faster and more efficient processes.

D. Educational Program and Curriculum

The BSHS is designed as an interdisciplinary degree which can provide access to entry-level employment or preparation for graduate study. The BSHS curriculum will incorporate studies in the natural sciences and mathematics, social and behavioral sciences, and professional studies combined with the offerings of the General Studies program. As the BSHS will include the human service component of healthcare, cultural competence and multicultural education are essential components of the curriculum. Specific learning outcomes will included critical thinking and problem solving skills, professional-level oral and communication skills, as well as specific skills needed for the workplace. Students will learn to critically review research, identify and discuss credible sources of health information, evaluate factors that contribute to health and illness and, examine the structure and administration of the health services delivery system. Students will also explore and evaluate the employment possibilities within the health services system and the appropriate career ladders for each occupation.

Initially, we propose two tracks within the BSHS:

- 1. A "General Track" in Health Sciences. This track would be appropriate both as a terminal degree and as a preparatory degree for students seeking graduate education in a healthcare field (e.g. physical or occupational therapy).
- 2. A Communication Disorders Track. The details and rationale for this track are explained below. This track would be primarily for students who are preparing for graduate study in Speech-Language Pathology, Communication Sciences/Disorders, or Audiology and for students who are interested in learning more about human communication and related disorders.

BSHS General Track

The BSHS General Track would provide coursework in Health Sciences combined with interdisciplinary studies from other Schools within the College. (A list of suggested courses is enclosed in Appendix B.

Given the current interest level of students in coursework and careers in health care fields, offering the BSHS has the potential to provide increased College enrollment and contribute to increased retention.

The following student groups are potential degree candidates for the BSHS:

- Currently enrolled and prospective students who are interested in health related careers but *prefer* not to pursue preparation in a specific health profession.
- Currently enrolled and prospective students who are interested in health related careers but who are not yet aware of the range of health careers open to them and want to explore career options.
- Currently enrolled and prospective students who need to complete the pre-requisites for programs such as Physical Therapy, Occupational Therapy, a Physician Assistant program, or other specialized healthcare field and want the option of a liberal arts education focused on the interdisciplinary aspects of health.
- Currently enrolled students who were not admitted into their first choice of a highly completive program (such as the BS in Nursing) but wish to prepare for a health career and have additional options.
- Prospective students who hold an Associate degree and certificate holders, such as medical assistants, radiologic technologists and medical laboratory technicians who want to earn a Baccalaureate degree for advancement at their present place of employment.
- Prospective students who hold non-health related degrees and want to pursue the
 integrated study of health and disease including those who wish to move into the health
 care sector.

In addition, Atlantic Cape Community College, Brookdale Community College, and Ocean County College support the development of a BSHS for articulation agreements because they have AS degrees in the Health Sciences.

In keeping with the theme of Global Perspectives, the College anticipates increased enrollment of international students. The BSHS would be another option for international students seeking an undergraduate degree from Stockton.

A curriculum sheet for the BSHS General Track is included in Appendix B. A completed curriculum sheet for a sample student is also provided as an example. In addition, a curriculum sheet for the BSHS which includes additional pre-requisite coursework for students accepted into the Doctor of Physical Therapy (DPT) program is provided (in Appendix B).

BSHS Communication Disorders Track

Stockton has been approved by the College to begin a Master of Science in Communication Disorders (MSD) program. The School of Health Sciences is currently awaiting a decision on program candidacy for accreditation by the Council on Academic Accreditation in Speech-Language Pathology and Audiology

(http://www.asha.org/academic/accreditation/CAA_overview.htm), however, anticipates accepting MSCD students for September 2011.

As was approved in the Program Announcement for the MSCD, the current BS degree in Speech Pathology and Audiology (SPAD) will be modified to more appropriately meet the needs of undergraduate students and to maximize program resources. The revised BS program will increase study in coursework that will provide general preparation for students in the health professions. Such coursework is currently not available to SPAD students. This coursework includes Medical Terminology, Writing for the Health Sciences, Computers for Health Sciences, and Research in the Health Sciences. The revised curriculum would reduce the number of courses in specialized treatment areas (such as Audiology) that is more appropriate at the graduate level of study. Students will continue to receive foundational work in speech pathology and audiology such as Speech Science I and II and Introduction to Communication Disorders (refer to the Curriculum Sheet in Appendix B.)

The Communication Disorders (CD) track with in the BSHS would:

- a) Prepare undergraduate students for application to a graduate program in Speech-Language Pathology, Communication Sciences/Disorders, or Audiology, including prerequisite coursework.
- b) Provide an undergraduate degree for students who are interested in learning more about human communication and related disorders and who wish to earn a Bachelor's degree.
- c) Provide additional undergraduate coursework in the Health Sciences that is not currently available at Stockton. Such coursework would include:
 - i. Medical terminology
 - ii. Introductory (overview) courses in the health sciences
 - iii. Professional writing in the health sciences
 - iv. Computer training specific to healthcare professionals

A similar undergraduate Communication Disorders track is currently offered at the University of Tennessee. Within the state of New Jersey, the only additional pre-professional program in Communication Disorders (beside Stockton's) is housed at Kean University as a track in the Education Department. The track proposed at Stockton would thus have a different foundations and course offerings than the one currently offered at Kean.

The current undergraduate SPAD program has an enrollment of 247. This represents a 22% increase over Spring of 2010. Additional interest in Communication Disorders is expected with the opening of the MSCD. Also, the State of New Jersey Department of Labor and Workforce Development has published projected continued need for licensed professionals in the area of Communication Disorders

http://lwd.state.nj.us/lpaapp/DataTools.html?newPage=OccProjInstant).

A curriculum sheet for the proposed BSHS Communication Disorders track is enclosed in Appendix. B.

Enclosed in Appendix C is a timeline for transitioning from the current BS in SPAD (Speech Pathology and Audiology) to the BSHS Communication Disorders track. In summary, all

students who have declared a major in SPAD by the end of the 2011-2012 academic year (ending with the Spring 2012 semester) would have the option of transitioning to the BSHS degree (Communication Disorders *or* General Tracks) or continue with the currently available (as of 2010-2011) BS in SPAD. Any students declaring a major in Speech Pathology and Audiology after the end of the Spring 2012 semester would be advised to enroll in the BSHS Communication Disorders track. As of 2012-2013, students will no longer be able to declare a BS in SPAD as a major.

Importantly, all students who have declared a major in SPAD by the end of the 2011-2012 academic year and who choose to complete the requirements for the BS in SPAD will be provided with the coursework and practica necessary to complete that program. Two of the current faculty, the clinical director, as well as the adjuncts currently teaching in SPAD will offer coursework and practica in the BS in SPAD until all students have exited the program. It should be noted that many of the courses in the current (2010-2011) SPAD program will be retained as part of the BSHS Track in Communication Disorders. Changes are primarily in upper level courses of specialization, study of Audiology, and upper level practicum experiences. BSHS students in the CD track will be provided with new coursework options (as described above), continued opportunities for clinical observation in the Stockton Speech and Hearing Clinic and new and varied Internship and Practicum experiences through the BSHS CD track.

Curriculum Structure and Requirements

The BSHS degree requires a total of 128 undergraduate credits (see Appendix B Curriculum Worksheet) for graduation. Students must maintain at least a 2.0 GPA (C average). Students are advised that admission into a graduate program requires at least a 3.0 GPA.

Students, along with their preceptor and other faculty members, will design their pathway through the interdisciplinary curriculum in order to meet the requirements of the BSHS. The BSHS Core will consist of 37-41 credits (refer to the BSHS curriculum sheet). In addition to the Core Curriculum courses, students will select cognate courses which complement the study of the Health Sciences. While suggested course selections are provided, students may consult with their preceptor and the program coordinator to allow for approved substitutions of other courses to meet the remaining credit requirements to achieve a Bachelor of Science degree. Suggested courses are provided in Appendix B.

Students in the Communication Disorders track will have specific requirements in SPAD coursework per the curriculum sheet. (Refer to Appendix B.) Students who wish to fulfill prerequisite coursework for graduate application to the MSCD (through the BHSH-CD Track) or to the DPT program should follow the appropriate curriculum worksheets that outline the appropriate courses (Refer to the Appendix B).

Experience is gained through internships, required of most students during their senior year. Service learning and practica experiences will be offered throughout the four-year program further enabling students to explore career opportunities in the health care field or related disciplines. Minors in other discipline such as Business, Public Health, Gerontology, Holistic

Health, Cognitive Neuroscience, or a Language are encouraged and may be earned within the four years of study.

Program Schedule/Courses

The following description includes a proposed schedule and suggested courses for students in the generalist BSHS track. Individual programs of study will be planned through the precepting model offered at Stockton. Each BSHS student will be assigned a preceptor from among faculty in the program. The precepting model will be consistent with that of the College.

This suggested sequence is by no means exhaustive and will be expanded to include other courses as they are identified or become available. As new paradigms and applications emerge, or as individual faculty members show interest, new courses may be added seamlessly to the curriculum after review by the appropriate committee. The following sequence suggests a load of 16 credits per semester.

FRESHMAN YEAR:

- Freshmen Seminar (General Studies Course)
- Introduction to the Health Sciences HLTH 1101
- Writing and Editing for the Health Professions HLTH 1411(Proposed W1)
- Statistics for Health Professionals (Q1) HLTH 2300
- Pre-requisite BIOL course & lab
- HLTH cognate
- At Some Distance Course
- General Studies

SOPHOMORE YEAR

- Computers for the Health Sciences HLTH 2441
- Medical Terminology HLTH 3421
- Introduction to the Health Sciences HLTH 1102
- Pre-requisite BIOL course & lab
- General Studies Course
- At Some Distance Course
- General Natural Science and Math (GNM) course (For CD Track Students a Physical Science course is recommended such as GNM 1100 which may also be designated as a Q2 course).
- HLTH Cognate

JUNIOR YEAR

- Research for the Health Sciences (Proposed W2/Q2) HLTH 3200
- BIOL 2180 Human Anatomy & 2185 Lab
- HLTH cognate
- HLTH cognate
- HLTH cognate

- General Studies Course
- General Studies Course
- At Some Distance Course

SENIOR YEAR

- Health Sciences Practicum OR Health Sciences Internship HTH XXXX
- HLTH cognate
- HLTH cognate
- General Studies Course
- HLTH cognate
- HLTH cognate
- At Some Distance Course
- General Integration & Synthesis (GIS) course

NOTE:

All students are required to complete the General Studies Outcomes through study in Arts (A), Historical Consciousness (H), Values/Ethics (V) and International/Multicultural (I) within the 128 credits needed to graduate.

Students must also complete also the Writing and Quantitative Reasoning Requirements prior to graduation.

Incoming students assigned to courses in the BASK program must also complete those requirements.

Health Sciences Internship/Practicum

Completion of the BSHS degree would require the completion of a Health Sciences Internship or Practicum. The specific nature of the Internship or practicum would be dictated by the individual needs and interests of students.

Projected Initial Enrollment

The projected launch of the BSHS is Fall semester 2012. Based on interest the interest survey summarized above, current admissions data, and current enrollment in Health Science programs, initial enrollment in the general track is projected to be 30 incoming students. Enrollment in the CD track (based on current enrollment) is expected to be 50 incoming students. Students enrolled in other College programs may choose to transfer into the BSHS general track or communication disorders track and will be advised to meet with a preceptor prior to changing majors.

If current enrollment trends continue, total enrollment could exceed 400 students by the Fall semester of 2016. Occupation projection data for Atlantic County, provide support for these enrollment projections.

Because Stockton is a public institution in the State of New Jersey Higher Education System, preference would be given to residents of the State of New Jersey. Preference would also be given to prospective applicants from New Jersey High Schools and transfers from New Jersey Community Colleges.

The Program will work with the Office of Admissions and network with Professional Organizations such as the Association for Schools of Allied Health Professions (ASAHP) to promote the program and to recruit a diverse population of students.

Admission Requirements

The admission requirements for the BSHS will be the same as the admission requirements for Stockton College. Any student accepted into the College in good standing may declare a major in Health Sciences with a concentration in either track. All students are encouraged to meet with the Office of Academic Advising or a program preceptor when considering declaration of a major.

III. Program Resources

A. Faculty: The following resources will be required and are described as either currently available or requested.

- Currently available:
 - .75 existing tenure line from the current Bachelor of Science in SPAD program
 - o .25 from the Dean who is in a tenure track position
 - o .25 from the Assistant Dean who is in a staff position
 - o 1.25 FTE comprised of adjunct faculty

• Requested:

- o One tenure track line (faculty)
- One internship (clinical placement) coordinator (professional staff: 14-20 hours per week). This position could be phased in during the second year of the program.

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A program coordinator will be selected from among the existing Health Sciences faculty or the newly hired tenure track faculty member. The program coordinator will have one course release each semester initially for the development of the program and one course release per academic year thereafter.

This degree will be interdisciplinary and will consist of specific Health Sciences course as well as course from across College programs. Thus, additional faculty support will be provided by faculty teaching cognate courses across the College's curriculum (Refer to suggested courses in Appendix B). BSHS students will be expected to adhere to all pre-requisite requirements and course restrictions on published cognate courses.

The table below summarizes faculty roles within the BSHS program.

TABLE 2. Faculty Affiliated with the Proposed BSHS Degree: Health Sciences Core

		Courses to be tought
Faculty Member	School	Courses to be taught
Requested	SHS	Program Coordinator,
FTE (1.0)		Intro to Health Sciences,
		Writing & Editing,
		Research for the Health
		Sciences, General Studies
Richard Berry (.75)	SHS	Speech Science I, Speech
(.25 to MSCD)		Science II, Phonetics,
		Aural Rehabilitation
April O'Neill (1.0 to	SHS	Undergraduate SPAD
SPAD through		Curriculum not assigned
Spring 2013)		to R. Berry or SPAD
		adjuncts
Speech and Hearing	SHS	Undergraduate Clinical
Clinic Director		Practica (primarily guided
(Professional Staff)		observation and
		shadowing)
Current SPAD	SHS	Undergraduate SPAD
Adjuncts (as need to		coursework not taught by
cover course		Berry or O'Neill (as
offerings)		determined by program
		coordinator with faculty
		input)
Brenda	SHS	Intro to Health Sciences
Stevenson-Marshall		
Laurie Shanderson	SHS,	Health Information
		Technology, Computers
		for Health Professionals
HLTH adjunct	SHS	Functional Anatomy
faculty (1.0		Medical Terminology
equivalent)		
NAMS adjunct	NAMS	BIOL 2180 Human Anatomy (4cr)
faculty (.25)		BIOL 2185 Human Anatomy Lab
Rich Grandrino	SHS	(0 credits) Health Statistics
	SUS	nearm stansics
SHS adjunct (.25)		

Faculty Member	School	Courses to be taught
Internship Coordinator	SHS	Health Sciences
(Masters Prepared)		Internship, Health
14-20 hours/week		Sciences Practica

The newly hired tenure track faculty member is expected to:

- o Hold a terminal degree in the health sciences or a related field and hold current certification, if applicable.
- Engage in teaching, scholarship, and service activities as outlined in the current: College-wide Policies and Procedures on Faculty Evaluation, School of Health Sciences Policies and Procedures on Faculty Evaluation, and forthcoming (BSHS) Program Policies and Procedures on Faculty Evaluation.

B. Additional Resources:

The new faculty member will require an office and a computer, which is standard for new hires. The clinic coordinator will require an office and a computer. The classrooms required for the proposed courses for this major will be available because several are already offered in the undergraduate Speech and Audiology (SPAD) major and as a result of the backfill retrofitting. The BSHS courses will require electronic classrooms. One computer lab will be needed. We anticipate offering the lectures in WQ 103 with WQ 104 serving as the open lab for the BSHS students. Both tracks (general and communication disorders) will use classrooms dedicated to the health sciences for the core curriculum.

Specialized classrooms, such as wet labs, are **not** required for the health science courses because labs will be primarily computer-based. BSHS labs will be called "hybrid" labs, not virtual or online labs, since the labs would have in-class lab activities in addition to those on that are computer-based. An "open lab" room (WQ 104) is planned for the "backfill" area on campus after the new college center is opened this year. This open lab room will be available to health science instructors and students for completion of some lab activities (such as those related to "hands on" clinical practice or other modes of clinical preparation) that may require a setting other than a traditional classroom. Equipment needs includes stethoscopes and blood pressure cuffs and ophthalmoscopes/otoscopes. For a reflex arc lab, Taylor Hammers will be used. All of these materials may initially be loaned if available through the nursing program and will not result in additional initial costs initially to the program.

Students enrolled in the CD track will have access to the Speech and Hearing Clinic for clinical observations and shadowing of graduate students. The Speech and Hearing Clinic is scheduled to move to the Parkway Building in January 2012.

All student learning space will be accessible in accordance with the Americans with Disabilities Act (ADA).

Library

No new resources will be needed in the <u>Library</u> for BSHS faculty and students. Current library resources are adequate for faculty and students in the School of Health Science programs. Essential Library resources for this new program (currently available through the Library) include the following databases: CINAHL Plus, Cochrane Reviews, Evidence-Based Medicine Reviews, Health Source/Nursing Edition, MEDLINE with Full Text, Medline (Cambridge Scientific Abstracts), Medline (Ovid), PsycINFO, PubMed, and ScienceDirect. In addition the current book and video collection pertaining to the health sciences and ongoing additions to this collection are essential. Interlibrary loan services will also be needed by this program's students and faculty.

IV. Evaluation

The BSHS Program will follow the College's model for program review and assessment. Continuous review of student performance and progress related to Program learning outcomes will be completed by faculty members under direction of the Program Coordinator in collaboration with eh Institute for Faculty Development.

V. Timeline

We hope to launch the program in the Fall of 2012 upon obtaining the necessary approvals.

References

- Bureau of Labor Statistics. (2010). *Occupational outlook handbook: 2010-11 edition*. Retrieved May 2010, from United States Department of Labor Web Site: http://www.bls.gov/oco/ocos2003.htm
- Division of Labor Market and Demographic Research (2011). *Projections 2014: New Jersey employment and population in the 21st century*. Retrieved July 28, 2008 from New Jersey Department of Labor and Workforce Development Web Site:

 http://www.wnjpin.net/OneStopCareerCenter/LaborMarketInformation/lmi03/index.html

APPENDIX A

Summary of Programs at Other New Jersey Institutions of Higher Learning

Name of Schools / Universities	Type of Degree offered	Affiliated Schools	Tracks offered in the B.S. of Health Studies Degree
Monmouth University	B.S. Health Sciences	NONE	 Bachelor of Science in Health Studies Bachelor of Science in Health Studies and Physical Education Bachelor of Science in Health Studies/Physical Education and Education with an Endorsement in K-12 Education in Health/ Physical Education
William Paterson University of NJ	B.S. Applied Health	NONE	NONE
New Jersey City University	B.S. Health Sciences	 University of Medicine and Dentistry of NJ (UMDNJ) Thomas Edison State College (TESC) 	 Bachelor of Science in Health Sciences—Advanced Practice: Dental Assisting Sciences Bachelor of Science in Health Sciences—Advanced Practice: Dental Hygiene Sciences Bachelor of Science in Health Sciences—Advanced Practice: Dietetics Bachelor of Science in Health Sciences—Advanced Practice: Imaging Sciences Bachelor of Science in Health Sciences—Advanced Practice: Respiratory Care Sciences Bachelor of Science in Health Sciences—Community Health Bachelor of Science in Health Sciences—with Teacher of Health Education Certification Bachelor of Science in Health Sciences—with Teacher of Health Education Certification and School Nurse
University of Medicine and Dentistry of NJ	B.S. Health Sciences	■ Thomas Edison State College (TESC) ■ New Jersey City University (NJCU)	 Allied Dental Track Dietetics Track Health Services Management and Education Track Imaging Sciences
Thomas Edison State College	B.S. Health Sciences	 University of Medicine and Dentistry of NJ (UMDNJ) New Jersey City University (NJCU) 	NONE

APPENDIX B

Curriculum Sheets

- BSHS General Track
- Sample Student Curriculum Sheet (BHSH General Track)
- BSHS Communication Disorders Track
- BSHS Student Accepted into DPT Program

Course Description for HLTH Acronym Course

Suggested Interdisciplinary (Cognate) Courses for BSHS Students

<u>Draft</u> Curriculum Worksheet for the <u>BSHS: General Tack</u>
All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

		ing 2XXX 80 Total Credits HLTH	
All BSHS students must earn a mini	mum o	f a "C" for all program and cognate courses.	
CORE PROGRAM COURSES			
HLTH 2221 Functional Human Anatomy OR BIOL 2180 Human Anatomy BIOL 2185 Human Anatomy Lab (0 credits)	4	COGNATE COURSES Students should consult with their preceptor for suggested cognates to meet the remaining credit requirements to achieve a Bachelor of Science degree. BIOL 1100 Organisms and Evolution or BIOL 1400 Biodiversity and Evolution (prerequisite for BIOL 2180)	4
HLTH 1101 Introduction to the Health Sciences I	4	BIOL 1105 or BIOL 1405 LAB (co-requite courses)	1
HLTH 1102 Introduction to the Health Sciences II	4	Cognate	4
HLTH 1411 Writing & Editing for the Health Sciences	4	Cognate	4
HLTH 3241 Medical Terminology	4	Cognate	4
HLTH 2305 Statistics	4	Cognate	4
		Cognate	4
HLTH 2441 Computers for Health Sciences	4	Cognate	4
HLTH 3200 Research for the Health Sciences	4	At least 16 cognate credits must be taken at the 3000 level or higher	
HLTH 3XXX Health Sciences Practicum OR HLTH 4XXX Health Sciences Internship	4	Cognate	4
Total Credits Core Courses	36	Cognate	4
		Cognate	4
		Cognate	4
		Cognate Credits (minimum)	44
		Total Credits (minimum)	80
GENERAL STUDIES REQUIREMENTS: No mothe BS degree	ore thar	n 12 credits in any "G" category may be applied toward	
GEN General Interdisciplinary		GNM General Natural Science & Math	
GIS General Integration & Synthesis (Jr./Sr. yr.)		GNM	
GAH General Arts & Humanities		GSS General Social Science	
GAH		GSS	
AT SOME DISTANCE 16 Cred	dits		
GENERAL STUDIES OUTCOME REQUIREMENT:	ho com	nloted within the 129 exedite needed to avaduate	
These courses are listed as attributes and should	De COM	(V) Values/Ethics	
(A) Arts			
(H) Historical Consciousness GENERAL STUDIES WRITING REQUIREMEN	T: (4 00	(I) International/Multicultural	
W1 W1/W2	1. (4 60	,	
GENERALSTUDIES QUANTITATIVE REASONING	REULIID	W1/W2 W1/W2 at 3000 Level	
Q1 Q2		Q1 or Q2	

<u>SAMPLE STUDENT</u> Curriculum Worksheet for the <u>BSHS: General Tack</u>
All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

		ng 2XXX 80 Total Credits HLTH
All BSHS students must earn a min	imum o	f a "C" for all program and cognate courses.
CORE PROGRAM COURSES		
HLTH 2221 Functional Human Anatomy OR BIOL 2180 Human Anatomy BIOL 2185 Human Anatomy Lab (0 credits)	4	COGNATE COURSES Students should consult with their preceptor for suggested cognates to meet the remaining credit requirements to achieve a Bachelor of Science degree.
HLTH 1101 Introduction to the Health Sciences I	4	BIOL 1100 Organisms and Evolution or BIOL 1400 4 Biodiversity and Evolution (prerequisite f L 2180) BIOL 1105 or BIOL 1405 LAB 1
		(co-requite courses)
HLTH 1102 Introduction to the Health Sciences II	4	Cognate: ANTH2136 World Perspectives on Health 4
HLTH 1411 Writing & Editing for the Health Sciences	4	Cognate: ECON 1200 Introduction to Macroeconomics 4
HLTH 3241 Medical Terminology	4	Cognate: ECON 2104 Health Care Economics 4
HLTH 2305 Statistics	4	Cognate: SOCY 1105 Introduction to Social Problems 4
		Cognate: Cognate: SOCY 2745 Race, Poverty, and 4 Education 4
HLTH 2441Computers for Health Sciences	4	Cognate: GERO 1100 Intro. to Gerontology 4
HLTH 3200 Research for the Health Sciences	4	At least 16 cognate credits must be taken at the 3000 level or higher
HLTH 3XXX Health Sciences Practicum OR HLTH 4XXX Health Sciences Internship	4	Cognate: ENVL 3241 Environmental Pollution and 4 Regulation
Total Credits Core Courses	36	Cognate: PUBH 3225 Health Insurance 4
		Cognate: PSYC 3300 Neurons and Networks 4
		Cognate: MGT 3110 Intro. to Management 4
		Cognate Credits (minimum) 45
OFNEDAL CTUDIES DESCUIDEMENTS. No second de	10	Total Credits (minimum) 81
degree	an 12 cr	edits in any "G" category may be applied towards the BS 32 Credits
GEN General Interdisciplinary		GNM General Natural Science & Math
GIS General Integration & Synthesis (Jr./Sr. yr.)		GNM
GAH General Arts & Humanities		GSS General Social Science
GAH AT SOME DISTANCE 16 Cred	:4-	GSS
AT SOME DISTANCE 16 Cred	Its	
GENERAL STUDIES OUTCOME REQUIREMENT: These courses are listed as attributes and should	be com	
(A) Arts		(V) Values/Ethics
(H) Historical Consciousness		(I) International/Multicultural
GENERAL STUDIES WRITING REQUIREMENT: (4	courses	
W1 W1/W2	DE0: ::=	W1/W2 W1/W2 at 3000 Level
GENERALSTUDIES QUANTITATIVE REASONING Q1 Q2	KEQUIR	EMENT: (3 courses) Q1 or Q2

<u>Draft</u> Curriculum Worksheet for the BSHS: <u>CD Track</u>
All Bachelor of Science programs require a minimum of 128 credits and a 2.00 cumulative average.

BS HEALTH SCIENCE					HLTH
Academic Year Fall 23	XXX-Sp	ring	2XXX	80 Total Cre	edits
All Health Sciences students must earn a minimur	n of a		SPAD 3	120 Aural Rehabilitation	4
C average for all HLTH acronym courses.	ii Oi a		SPAD 3	123 Into. To Language Disorders	3 4
HLTH 2221 Functional Human Anatomy	4		PSYC 33	323 Dev. Psych Child & Adolesc	
The Fire Lead of a final				715 Clinical Practicum I	2
HLTH 1101 Introduction to the Health	4			to Complete minimum of 80	
Sciences	•			n BSHS: CD track	
HLTH 1102 Introduction to the Health	4		Cognate		
Sciences	ļ -		o o ga.co		
HLTH 1411 Writing & Editing	4				
HLTH 2305 Statistics Q1	4				
HLTH 2411 Computers for the Health Sciences	4				
HLTH 3421 Medical Terminology	4				
HLTH 3200 Research for the HLTH Sciences	4		TOTAL	BSHS/CD CREDITS	80
HLTH 3XXX Health Sciences Practicum OR	4		· O I AL	205/05 025/10	
HLTH 4XXX Health Sciences Internship	-				
TOTAL CORE CREDITS	36				
SPAD Courses	30				
	4				
SPAD 1101 Phonetics	4				
SPAD 1102 Speech Science I	4				
SPAD 1103 Speech Science II	4				
SPAD 2115 Language Acquisition	4				
SPAD 2119 Intro. to Communication Disorders	4				
SPAD 2125 Methods & Materials in SLP	4				
SPAD 3120 Intro to Articulation and Phonological Disorders	4				
GENERAL STUDIES REQUIREMENTS:	<u> </u>			48 Total C	redits
No more than 12 credits in any "G" category may	, be apr	olied	towards t		Credits
GEN General Interdisciplinary	SO GPF)ou		eneral Natural Science & Math	JI GUILG
GIS General Integration & Synthesis (Jr. yr.)			GNM	moral Hataral Colonico a matri	
GAH General Arts & Humanities				neral Social Science	
GAH			GSS	neral Coda Colence	
AT SOME DISTANCE Electives – Courses uni	related	to v		16.0	Credits
Please see attached for suggestions	Ciateu	lo y	our major	100	leuits
Flease see attached for suggestions					
GENERAL STUDIES OUTCOME REQUIREMEN	│ NT: Tha	266.6	Ourese a	re listed as attributes and she	uld be
completed within the 128 credits needed to g			Jui Ses a	ne nsteu as attributes and sno	ulu be
(A) Arts	laduate	,. 	(\/\ \/alu	es/Ethics	
1 /					
(H) Historical Consciousness GENERAL STUDIES WRITING REQUIREMENT	 	uros		national/Multicultural	
				at Stockton	
Two W2 courses may be in transfer. W2 cour	ses iiil		e taken a 1/W2	W1/W2 at 3000 Leve	ol.
GENERALSTUDIES QUANTITATIVE REASONING F	DECLIID				U I
Two Q1 courses may be in transfer. Q2 courses m					
Q1 Q2		anei	. at Stocki	Q1 OR Q2	
Q1 Q2	-			W O \ W 2	

Bachelor of Science in Health Sciences/Doctor of Physical Therapy Recommended course progression for students Accepted from High School to RSC Doctor in Physical Therapy (DPT) Program

Freshman Year	Fall		Spring		
BIOL 1200	Cells & Molecules	4 cr.	BIOL 1400	Biodiversity & Evolution	4 cr.
BIOL 1205	Cells & Molecules lab	1 cr.	BIOL 1405	Biodiversity & Evolution	1 cr.
				lab	
CHEM 2110	Chemistry I: General Principles	4 cr.	CHEM 2120	Chemistry II: Organic	4 cr.
CHEM 2115	Chemistry Lab	1 cr.	CHEM 2125	Chemistry II lab	1 cr.
HLTH 1101	Introduction to the Health	4	HLTH 1102	Intro. to the Health	4
	Sciences I			Sciences II	
G* or ASD	(Freshman Seminar)	4 cr.	G* or ASD	(student's choice)	4 cr.

Sophomore Year	Fall		Spring		
PHYS 2110	Physics for Life Sciences I	4 cr.	PHYS 2120	Physics for Life Science II	4 cr.
PHYS 2115	Physics for Life Sciences lab	1 cr.	PHYS 21215	Phys for Life Science II lab	1 cr.
BIOL 2180	Human Anatomy	4 cr.	BIOL 2150	Vertebrate Physiology	4 cr.
BIOL 2185	Human Anatomy lab	0 cr.	BIOL 2151	Vertebrate Physiology	0 cr.
G* or ASD	(student's choice)	4 cr.	G* or ASD	(student's choice)	4 cr.
PSYC 1100	Introduction to Psychology	4 cr.	HLTH 1411	Writing and Editing W1	4

Junior Year	Fall		Spring		
G* or ASD	(student's choice)	4 cr.	HLTH 3200	Research for the HS	4
				W2/Q2	
HLTH 3421	Medical Terminology	4 cr	HLTH 3XXX	HS Practicum	4
HLTH 2411	Computers for the Health Prof	4 cr	G* or ASD	(student's choice)	4 cr.
G* or ASD	(student's choice)	4 cr.	G* or ASD	(student's choice)	4 cr.
G* or ASD	(student's choice)	4 cr.			

DPT YEAR 1 (Senior Year as Undergraduate)

Senior Year	Fall		Spring		
PHTH 5010	Human Gross Anatomy	4 cr.	BIOL 4150	Advanced Physiology	4 cr.
BIOL 4230	Neuroscience	4 cr.	PHTH 5025	Pathology II	2 cr.
BIOL 4231	Neuroscience lab	1 cr.	PHTH 5001	Kinesiology, Basic PT eval.	7 cr.
PHTH 5020	Pathology I	3 cr.	G* or ASD	(student's choice)	4 cr.
G* or ASD	(student's choice)	4 cr.	HLTH 2300 or	Statistics	4 cr.
			XXXX	(see list below)	

<u>Statistics Course</u>: Students can take any statistics course. We recommend: BIOL 3105-Biometrics or PSYC 2241 Statistical Methods

General Education Requirements*				
Arts course		International/Multicultural course		
Values/Ethics course		Historical Consciousness course		
	Writing Requirement: (all o	courses must have 'C' or better grades)		
	rosh):	2. Other W1 or W2 course:		
3. Other W1 or	W2 course:	4. 3000/4999 level W1 or W2 course:		
	Quantitative	Reasoning Requirement		
1. Q1 course:	2. Q2 course:	3. Q1 or Q2 course:		
important that		hat all graduation requirements are met" (Bulletin). It is /or the Center for Academic Advising on a regular basis tion.		
DPT YEAR 2				
<u>Fall Semester</u>				
PHTH 5500	Musculoskeletal PT I	8 credits		
PHTH 5510	Musculoskeletal PT II	7 credits		
PHTH 5600	Research I	3 credits		
Spring Semeste	or.			
PHTH 5520	Musculoskeletal PT III	7 credits		
PHTH 5530	Musculoskeletal PT IV	7 credits		
PHTH 5610	Research II	3 credits		
PHTH 5805	Pre-Clinical Experience I	0 credits		
Summer Sessio				
PHTH 5810	Clinical Experience I	5 credits		
	(10 weeks full-time off-campus)			
DPT YEAR 3				
Fall Semester	DI : 1771 M	2 17		
PHTH 6610	Physical Therapy Management			
PHTH 6500	Neuromuscular PT I	7 credits		
PHTH 6510	Neuromuscular PT II	7 credits		
PHTH 6520	Cardiopulmonary PT	7 credits 1 credit		
PHTH 6620 PHTH 6805	Research III	0 credits		
PH1H 0803	Pre-Clinical Experience II	0 credits		
Spring Semeste	er			
	ng semester begins early.)			
	full-time off-campus:			
PHTH 6810	Clinical Experience II	5 credits		
Last 6 weeks of	f the semester on-campus:			
PHTH 6650	Issues in Health Care	2 credits		
PHTH 6530	Other Systems in PT	7 credits		
PHTH 6640	Education Practicum	2 credits		
PHTH 6660	Health and Wellness Practicum	2 credits		

PHTH 6630 Research IV 1 credit PHTH 6815 Pre-Clinical Experience III 0 credits

Summer Session

PHTH 6820 Clinical Experience III 5 credits

(10 weeks full-time off-campus)

Every effort is made to present accurate information but please note that this information is subject to change.

HEALTH SCIENCES COURSES (HLTH)

All students enrolled in the BSHS Program will be required to complete the Core Curriculum courses (Refer to Curriculum Worksheets for the BSHS General and CD Tracks).

(Note: As of Spring Semester 2011, some of these courses are all ready offered within the School of Health Sciences, e.g. HLTH 2221: Functional Human Anatomy. Others are existing courses with assigned course numbers such as HLTH 324: Medical terminology1, but were not offered this academic year. A few courses such as the Health Sciences Practicum are new courses and will require new course numbers.)

HLTH 1101 (4 credits) & HLTH 1102 (4 credits)

Introduction to the Health Sciences.

This <u>two semester BSHS introductory course</u> begins with an overview of the health services delivery system nationally and internationally. Concepts of individual and population health, significant trends in health, service delivery, nature of services provided, career opportunities within selected fields, and relationships among those fields will be stressed. The health sciences are then presented as a coherent group of disciplines addressing prevention, clinical, therapeutic, and administrative health care practices, and academic areas of study. Representatives of the disciplines that form the foundation for the health sciences degree will introduce students to their respective disciplines and discuss research. Challenges to the successful delivery of care such as cultural competence, health literacy, and ethical divergence will be presented with variations by career path considered. Course designed to improve health sciences literacy.

HLTH 1411

Writing and Editing for the Health Sciences (4 credits)

(Proposed Writing-Intensive course – W)

Designed to give students the opportunity to improve their writing skills while pursuing interests in science, technology, and health. Students learn medical terminology, editing, revision skills, and research methods. Business letters, scientific abstracts, interviews, and copy writing for the media are covered in lecture, demonstration, and classroom activities.

HLTH 2221

Functional Human Anatomy (4 credits)

Recommended for BSHS CD Track. NOT RECOMMENDED for students in the pre-DPT/accelerated DPT program.

A study of the functional aspects of the human body. Emphasis will be on the study of anatomy and how it relates to the functions of the human body. Virtual Lab sessions will include dissections, experiments, and demonstrations.

HLTH 2305

Statistics for Health Professionals (4 credits)

Q1

Organizing data, distributions, measure of central tendency, and variability. Sampling theory and the use of statistics in tests of significance. Orientation in basic and qualitative research methods; in descriptive and analytical studies; and in experimental, predictive and philosophical approaches and their practical application in the health sciences.

HLTH 3200 Research for the Health Sciences

Pre-requisite: HLTH2305 or equivalent: Statistics for Health Professionals (Proposed W2/Q2)

The purpose of this course is to teach students how to complete a research project, beginning with understanding why research is necessary for evidence-based practice. The course also addresses ethics in research and the steps necessary for conducting research. A proposal of projected research in the student's concentration is required.

HLTH 3421 Medical Terminology for the Health Sciences (4 credits)

Introduction to the medical language used in health care settings with focus on terms describing disease states and diagnostic procedures (CPT 4, and ICD-CM codes will be introduced and applied). Analysis of medical terms and components as foundation for recognition of medical language encountered in health care settings; includes examination of medical terminology utilized in case studies and in research conducted in clinical settings.

HLTH 2411 Computers for the Health Sciences (4 credits)

An introductory course to computers and current technologies, information systems analysis, design and the economics of information systems, as they all interface with the health sciences. Medical technology as an aid to early treatment, diagnosis and prevention will be discussed. Tele-medicine, video conferencing and the electronic medical record will be offered as examples of the advances in technology. The challenges these advances present with respect to ethical and confidentiality breaches will be highlighted.

HLTH 3XXX – Health Sciences Practicum (4 credits)

This upper level course is designed to prepare students in the supervised and practical application of previous or concurrent theories studied as a part of the Health Sciences curriculum. The practicum is consistent with the student's concentration and oversight is provided by the course instructor.

HLTH 4XXX – Health Sciences Internship (4 credits)

The final course in the BSHS program for all concentrations, the internship provides the opportunity for experiential learning in a supervised environment. This clinical placement is consistent with the student's concentration. Placement and oversight is provided by the BSHS clinical coordinator with a sponsoring professional (preceptor) at the health facility. A special project in the student's area of concentration may be completed in lieu of an internship where project completion is an option.

Amended Information to BSHS Proposal of April 15, 2011

I. Additional Courses

HLTH 2170 – Human Anatomy and Physiology I with hybrid laboratory (4credits lecture, 1 credit for lab)

This course provides a systems and integrative study of the structure, function, and mechanism of the human body with clinical application. Areas covered include cellular and molecular chemistry and biology, metabolism and homeostasis, and an introduction to organ systems study. The course is designed for students enrolled in biological sciences, health sciences professions and related fields. Hybrid laboratories replace wet laboratories providing similar experiences and building requisite skill sets.

AND

HLTH 2270 – Human Anatomy and Physiology II with hybrid laboratory (4credits lecture, 1 credit lab)

The second of a two semester sequence (Pre-requisite: HLTH 2170) Areas of study include the structure and function of various human organ systems, including the nervous, endocrine, cardiovascular, respiratory, excretory, and digestive systems. Hybrid laboratory work, replacing wet laboratories, consists of anatomical and physiological studies of the human body.

Human Anatomy & Physiology I and II will be offered by the School of Health Sciences beginning in the Fall of 2011. Adjunct instructor, Dr. Bentley Gubar has developed these courses with input from members of the HLTH and NAMS faculty. The courses will be offered in the Fall of 2011 for students enrolled in the Pre-Occupational Therapy concentration of the B.S. in *Public Health*.

Students enrolled in the General Track of the BSHS will have an *anatomy* requirement which may be fulfilled in one of the three following ways. It is each student's responsibility to meet with their preceptor to determine which path best meets their educational needs.

- 1. HLTH 2221 Functional Human Anatomy (no lab) (4 credits)
- 2. HLTH 2170 Human Anatomy and Physiology I with hybrid laboratory (4 + 1 credits) (no pre-requisite coursework) <u>FOLLOWED BY HLTH 2270</u> Human Anatomy and Physiology II with hybrid laboratory Pre-requisite: HLTH 2170
- 3. BIOL 2180 Human Anatomy (4 credits) <u>WITH</u>
 BIOL 2185 Human Anatomy Lab (0 credits) Preceded by all necessary pre-requisites including: MATH 1100 Precalculus with a C or better OR GEN 1126 with a C or better or GNM 1125 with a C or better OR Accuplacer score of 55 or better, BIOL 1200/1205 Cells & Molecules with a C or better

Option two was mistakenly omitted from the BSHS proposal dated April 14, 2011.

II. Note with Regard to Proposal of BSHS: Clarification of Cognates

BIOL 1400 Biodiversity and Evolution and its associated lab, BIOL 1405, are not REQUIRED cognates. Nor is BIOL 1200 /1205 Cells and Molecules, which is the prerequisite for BIOL 2180/2185 Human Anatomy. The Draft Curriculum Worksheet (Appendix B, p. 24) may give this impression, but will be revised so that it is clear that these are not required courses. However, one or both of these introductory biology courses is necessary if the student plans to pursue additional Biology Program courses, such as BIOL 2180/2185. As noted above, students may take HLTH 2221 or HLTH 2170/2270, neither of which have biology courses as prerequisites.

BIOL 1100/1105 Organisms and Evolution is no longer being taught, but may be used as a cognate by students who have taken this course in the past.

This suggested list of cognates on pp. 33-34 does not change.

(ajh/4-15-11)

Suggested Cognate Courses: BSHS

Courses listed may have specific pre-requisites, restrictions, or placement requirements. Refer to the College Bulletin for details.

ACCT 2110 Financial Accounting ACCT2120 Managerial Accounting

ANTH2136 World Perspectives on Health

ANTH 2152 Language and Culture

ANTH3220 Ethnicity

ANTH 3624 Community Partnerships

BIOL 1200 Cells and Molecules

BIOL 1205 Cells and Molecules Lab

BIOL 1400 Biodiversity and Evolution

BIOL 1405 Biodiversity and Evolution Lab

BIOL 2150 Vertebrate Physiology

BIOL 2151 Vertebrate Physiology Lab

BIOL 4230 Neuroscience (students accepted to DPT only)

BIOL 4231 Neuroscience Lab (students accepted to DPT only)

BIOL 4150 Advanced Physiology (students accepted to DPT only)

CHEM 2110 Chemistry General Principles

CHEM 2115 Chemistry General Principles Lab

CHEM 2120 Chemistry II: Organic Chemistry

CHEM 2125 Chemistry II: Organic Chemistry Lab

ECON 1200 Introduction to Macroeconomics

ECON 2104 Health Care Economics

EDUC 3241 Educating Children with Special Needs

EDUC 3515 Families, Schools, and Communities

ENVL 1100 Introduction to Environmental Studies

ENVL 3241 Environmental Pollution and Regulation

FINA 1330 Introduction to Financial Management

GERO 1100 Introduction to Gerontology

GERO 2107 Aging and Health

GERO 2109 Biology of Aging

GERO 3616 Aging and Mental Health

LANG

Many courses listed in the Language Curriculum may apply to the requirements for the BSHS. Students should consult with their preceptors.

LITT 2170 Disability and Literature

MATH 2210 Calculus for Life Sciences

or MATH 2215

MGMT 3110 Introduction to Management Calculus I

MGNT3 111 Human Resources Management

MKTG 3112 Public Relations

PHYS2110 Physics for Life Sciences I

PHYS 2115 Physics for Life Sciences I Lab

PHYS 2120 Physics for Life Sciences II

PHYS 2125 Physics for Life Sciences II Lab

POLS 2190 Introduction to Public Policy

PUBH 1100 Introduction to Community Health

PUBH2530 Basic Environmental Health

PUBH 2450 Public Health and Marketing

PUBH 2402 Public Policies and Issues

PUBH 3225 Health Insurance

PUBH 3420 Epidemiology

PUBH 4401 Health Management

PSYC 2211 Abnormal Psychology

PSYC 2212 Health Psychology

PSYC 2215 Cognitive Psychology

PSYC 3300 Neurons and Networks

PSYC 3322 Lifespan Development

PSYC 3323 Developmental Psychology: Childhood and Adolescence

PSYC 3331 Physiological Psychology

PSYC 3355 Clinical Neuropsychology

SOWK 2504 Race, Ethnicity, and Diversity

SOCY 1105 Introduction to Social Problems

SOCY 2745 Race, Poverty, and Education

SPAD (Students in the CD track should consult the curriculum sheet for the BSHS: CD track)

SPAD 1102 Speech Science I

SPAD 1103 Speech Science II

SPAD 2119 Introduction to Communication Disorders

APPENDIX C

Timeline for Program Changes in BSHS SPAD, BHSH CD Track, Implementation of MSCD

Transition Timeline: BS in SPAD to BSHS with Concentration in SPAD (and MSCD Implementation)

Academic Year	BS in SPAD Students	BSHS with SPAD students	MSCD
2011-2012	Last incoming freshmen class (class of 2015) Class of 2014 continues Class of 2013 continues Class of 2012 graduates Last academic year for students to transfer into BS in SPAD	None	Cohort 1 admitted (no clinical practicum-observation only)
2012-2013	Class of 2013 graduates Class of 2014 continues Class of 2015 continues	Freshmen class of 2016 enters All new transfer students enter BSHS	Cohort 1 continues with on (an off)campus clinic Cohort 2 admitted (observation only)
2013-2014	Class of 2014 graduates Class of 2015 continues	New BSHS students admitted BSHS majors continue	Cohort 1 graduates Fall 2013 Cohort 2 continues with on (an off)campus clinic Cohort 3 admitted (observation only)
2014-2015	Class of 2015 graduates Last BS in SPAD class	New BSHS students admitted BSHS majors continue	Cohort 2 graduates Fall 2014 Cohort 3 continues with on (an off)campus clinic Cohort 4 admitted (observation only)

A. Hadley March 28, 2011

Appendix

BSHS Interview Notes

BSHS Interview Notes: Betty Burke, RN, MEd

Interview Details					
Company Name:	Shore Memorial Hospital	Date:	2/15/2011	_ Time:	8:00 am
Interviewer Name:	Laurie Shanderson, PhD, MPA				
Interviewer Title:	Assistant Dean	Interviewer Pho	ne Number:	(609) 6	52-4501
Interview Subject:	Bachelor of Science Health Science	e Degree			
Location:	Stockton School of Health Sciences H	208a – Asst. Dea	an's office		
	Questions Asked	by Interviewer			
Question: Is the	ere a demand for someone with this deg	ree?			
Notes: People with degree can work in many institutions such as government, health care, non-profit, research,					
technology and more. The degree is similar to a liberal arts degree for health care focused individuals.					
Question: Which groups should be targeted/ which groups at Shore Memorial may be interested?					
Notes: Many would be interested in this degree as it is a springboard to many career options in health care. The					
degree is a stepping stone to MHA, MBA and similar degrees and those who aspire to higher administration – CEO.					
Question: What other suggestions do you have for us?					
Notes: Capitalize on being the only school with this program in the area. Meeting with your alumni association and					
community colleges in the area. Baby boomers will be retiring soon and will need to be replaced in the workforce.					
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Additional Notes

Betty believes we are poised for success relative to offering this degree program. By providing a "foundation for health sciences in a generic manner" we can reach anyone seeking a health related career. She is excited about the program and will do whatever she can to assist in our success.

BSHS Interview Notes: Bancroft

Tony DiBartolo, Vice President, HR and Lauren Kelley, Director of HR Operations & Staff Training

Interview Details					
Company Name:	Bancroft	Date:	2/25/2011	Time: 9:10 am	
Interviewer Name:	Laurie Shanderson, PhD, MPA				
Interviewer Title:	Assistant Dean	Interviewer Pho	one Number:	(609) 652-4501	
Interview Subject:	Bachelor of Science Health Science	e Degree			
Location:	Teleconference				

Questions Asked by Interviewer

1. Is there a demand for this degree?

There certainly is a great demand for individuals who possess this degree. Knowledge about many healthcare topics including the continuum of care, health care policy, human resources, finance, insurance, facility types etc. should be a part of the curriculum. The degree would provide an opportunity for those seeking administrative and executive level positions.

2. Which groups should be targeted? Which groups at Bancroft may be interested?

Bancroft employs a significant number of Program Directors who would benefit greatly from this degree. In order to perform their duties they need a solid background in health sciences and an opportunity for a solid career path. Bancroft hopes that their employees will be able to matriculate with the BSHS degree and are looking forward to providing internship opportunities. Bancroft would love for their directors to have this degree.

3. What other suggestions do you have for us?

Bancroft acknowledges that the degree is highly desirable and in demand. Those who would be successful in the field will be exposed to both theoretical and practical aspects of health care. As it is hard to find people with this skill set, the BSHS degree option would prepare those seeking many career paths in the health sciences.

Additional Notes

Toni DiBartolo and Lauren Kelley both look forward to working with Stockton by providing internship opportunities for those who can shadow administrators, program directors and other HR representatives.

BSHS Interview Notes: Atlantic Cape Community College Carol Mohrfeld, MSN, RN Chairperson – Nursing and Allied Health

Interview Details						
Company Name:	Atlantic Cape Community College	Date: <u>3</u>	3/1/2011	_ Time: _	9:00 am	
Interviewer Name:	Laurie Shanderson, PhD, MPA					
Interviewer Title:	Assistant Dean	Interviewer Phone	Number:	(609) 65	2-4501	
Interview Subject:	Bachelor of Science Health Science	e Degree				
Location:	Atlantic Cape Community College H12	1				

Meeting Outcomes

Carol is very interested in partnering with us to allow the graduates of Atlantic Cape Community College's Associate in Sciences (Health Services) to articulate into Stockton's upcoming BSHS degree program. She sees great benefit in this collaboration and notes the many career options the degree will provide to her students.

Additional Notes

In preparation for this collaboration the Assistant Dean is preparing a "cross walk" between each program's curriculum and an articulation agreement which would facilitate the collaboration.

BSHS Interview Notes: AtlantiCare

Richard D. Lovering Vice President Human Resources and Organizational

Development

Interview Details					
Company Name:	AtlantiCare	Date: 4/6/2011	Time: 8:30am		
Interviewer Name:	Laurie Shanderson, PhD, MPA				
Interviewer Title:	Assistant Dean	Interviewer Phone Number:	(609) 652-4501		
Interview Subject:	Bachelor of Science Health Scienc	e Degree			
Location:	SHS H208				

Questions Asked by Interviewer

- 1. **Is there a demand for this degree?** RL believes there is a strong need for this degree and for those who earn the degree. It will provide career options other than clinical. The degree is a spring board for those seeking leadership positions. Acquiring skills in an academic setting is necessary for the new leadership.
- 2. Which groups should be targeted? Which groups at AtlantiCare may be interested? Individuals who have earned associates degrees in clinical areas will have the opportunity to complete the BSHS. Additionally, nurses, those very talented with service skills, and those displaced by the casino industry may want to earn this degree. In a field where credentials count, the BSHS is very important.
- 3. What other suggestions do you have for us? It is important to understand that the next 10 years of health care reform will require a new group of leaders who will be able to deal with the changes in the structure, delivery, and financing of the healthcare system. The new group of leaders will need to be equipped to manage the challenges and demand of both the field and market.

RL recommends including a technology focus. As innovation will lead the change, the students should be exposed to innovation and technology in order to develop faster and more efficient processes.

Based on the discussion with RL, Dr. Shanderson is very interested in developing a Healthcare Innovation course which focuses on using technology to manage the dynamic changes in healthcare.

Additional Notes

AtlantiCare is committed to seeing the BSHS to fruition. They are prepared to provide internship and possible employment opportunities to support the BSHS students and program.

BSHS Interview Notes: Ben Castillo – Dean School of Social Sciences and Human Services, Colleen Manzetti, Assistant Dean of Nursing

Interview Details					
Company Name:	Ocean County College	Date: 3/7/20	11 Time: <u>9:20 am</u>		
Interviewer Name:	Laurie Shanderson, PhD, MPA				
Interviewer Title:	Assistant Dean	Interviewer Phone Num	ber: (609) 652-4501		
Interview Subject:	Bachelor of Science Health Science	e Degree			
Location:	OCC Campus BART 209				

Notes from Discussion

Both Ben and Colleen are excited about the BSHS degree at Stockton and see many ways their students can benefit from an articulation agreement between the schools. They would like us to look at their current courses to see how they would fit into our program. They would like to explore offering an Introduction to Health Sciences on their campus to compliment our program.

OCC offers an Associate's Degree in Nursing and would like to collaborate with regards to a BSN offering.

They also offer a PT assistant program and would like to know how those students might fit into our PT program at some point.

Articulation agreements should be sent to Eileen Schilling.

Additional Notes