

PROGRAM REVIEW

A PROCESS FOR SELF-EVALUATION AND CONTINUOUS IMPROVEMENT

PARAMEDIC SCIENCE DEPARTMENT

PROGRAM: Paramedic Science **PROGRAM REVIEW TEAM:** Professor Jennifer McCarthy, Professor Joanne Piccininni and

Instructor Denise Arzoomanian

DATE OF THIS REPORT: May 2016

PERIOD OF YEARS BEING REVIEWED: 2014 - 2015

Paramedic Science Program Overview

The Bergen Community College (BCC) Paramedic Science Program was established in the fall 2014 academic year. The curriculum was designed using a workforce development model which allows students to earn the required course certifications and skills for entry into the profession in one academic year. All students have earned the required general education courses prior to beginning a discipline specific academic schedule that utilizes a full time course schedule. Graduates of the Paramedic Science Program, are employed at the clinical affiliates of the program.

Paramedic Science Program Goal:

To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Paramedic Science Program Core Competencies:

A. Ethics and EMS Structure

- A1. Exhibit a professional code of conduct with personal and professional integrity.
- A2. Provide compassionate care to all populations while respecting cultural differences.
- A3. Comply with all state and federal regulations/laws for an entry-level paramedic.

B. Patient Assessment and Skills

B1. Utilize a systematic assessment to determine appropriate modalities for medical and trauma patients of all ages while prioritizing interventions needed to improve patient outcomes.

B2. Demonstrate skill proficiency in all entry-level psychomotor skills, utilizing them when clinically appropriate and at the correct time to improve patient outcomes.

B3. Function as a member of the paramedic team by using effective communication and proper behavior that promotes customer service and efficient care.

C. Safety and Personal Wellness

C1. Correctly identifies potential hazards to promote a safe environment for self, coworkers, patients and bystanders.

C2. Uses critical thinking skills to properly manage and diffuse stressful environments.

C3. Identifies personal stress and utilizes stress management techniques to ensure physical and emotional health.

Paramedic Science Program Learning Outcomes

Paramedic Science Learning Outcomes	Means of Program Assessment & Criteria for
Upon successful completion of the program, students	Success Outcomes will be assessed by:
Demonstrate skill proficiency in all entry-level	Assess utilizing a comprehensive written and practical
psychomotor skills, utilizing them when clinically	final exam; achieving a minimum pass score of 77% on
appropriate and at the correct time to improve patient	each exam
outcomes.	
Manage pre-hospital patient care utilizing evidence-based	Assess utilizing a comprehensive written and practical
emergency medicine and Paramedic Science.	each exam
Demonstrate critical thinking in decision-making	Assess utilizing a comprehensive written and practical
processes to improve the health and welfare of pre-	final exam; achieving a minimum pass score of 77% on
hospital patients.	each exam
Perform competently in the roles and responsibilities	Assess terminal competence at a minimum pass score of
outlined in the New Jersey state paramedic scope of	77% on the field externship evaluations.
practice.	Current la constation of the Denne die Seienee
for the paramedic National Registry of Emergency	Successful completion of the Paramedic Science
Medical Technicians (NREMT) paramedic exam and	competency evaluations.
become licensed as a paramedic, enabling the student to	I I I I I I I I I I I I I I I I I I I
be eligible for licensure in New Jersey.	Assess utilizing an Affective Behavior Assessment
Demonstrate professional demeanor that is outlined in the	achieving; a minimum pass score of 77%.
Obtain employment as an entry level paramedic with an	Assess graduate and employer surveys
EMS agency in New Jersey.	Assess graduate and employer surveys
National Standards from CoAEMSP – Commission on	Means of Program Assessment & Criteria for
NDEMT/State licensing pass rate > 70%	Success Outcomes will be assessed by:
INKEMIT/State licensing pass rate > 70%	Keview pass rates to the INKEWIT incensing exam
	Quality assurance item review to identify weaknesses
	Guide curriculum modifications based on identified
	areas of concern
Program Retention of $> 70\%$	Track attrition rates annually
	Develop a robust admission process that evaluates
	minimum competence of prospective students
Graduate employment > 70%	Track employment rates annually
	Engage clinical affiliates and future employers through
	advisory board membership and in student activities
	where appropriate

The BCC Vision is to be a dynamic partner by bridging potential with opportunities for educational, professional and personal growth. The Paramedic Science Program has been established through partnerships with stakeholders in the healthcare community, public safety arena and emergency medical service leaders. These partnerships connect the program with the institutional vision of enhancing collaboration.

The BCC Mission is to inspire our community to realize a better future. The Paramedic Science Program has positively impacted the EMS community by increasing the number of associate degree prepared candidates in the field.

The Paramedic Science Program utilizes the vision and mission to meet the needs of the students, patients and clinical affiliate partners. These core values will guide our daily endeavors.

SUMMARY OF SIGNIFICANT DEVELOPMENTS SINCE LAST PROGRAM REVIEW

This is the first program review of the Paramedic Science Program. The significant developments of the program began in 2010 when Dr. Susan Barnard, the Dean of Health Professions, completed an environmental scan of health professions careers and compared it to the programs offered by BCC. That report identified that BCC did not have emergency medicine education programs. After evaluating the EMS profession, it was clear that there was a career path opportunity between EMT and Paramedic Science. On further review of the expected job growth and outlook, searching for a funding source to establish a Paramedic Science degree became a priority.

That summer, Dr. Barnard was one of the lead writers for developing the Health Professions Career Pathways Grant (HPOG). The grant's mission is to help build career pathways for certificate to licensed health professionals. In late September 2010, Bergen Community College was named the lead agency on the HPOG grant which was approved for 24.6 million dollars over 5 years. Establishing an AAS in Paramedic Science was included in the HPOG grant for year 4 and 5 of the grant. The grant included funding for consultant fees, development of the program and equipment purchases and ended in 2015.

The BCC Administration agreed to support the cost and to continue the program after the grant period ended. It was decided that the Paramedic Science Program would be located at the Lyndhurst campus location to increase its degree offerings. It is the college's intent to seek full branch status for the Meadowlands location. As part of the strategic plan, during the 2011 -2012, the Meadowlands location received a new library, student services area; tutoring center, counseling, bursar, bookstore, science wet labs and a state of the art business and conference center.

During the summer of 2012, a consultant was hired to complete a Paramedic Science needs assessment and written environmental scan of the Paramedic profession. An Advisory Committee was convened consisting of the Paramedic/EMS Directors, EMS Educators, the Bergen County EMT Director and Emergency Physicians. The support from the committee was overwhelmingly positive and served as the launching point for establishing the program. The New Jersey Department of Health and Human Services – Office of Emergency Medical Services was notified of the intent to establish a program at BCC Meadowlands. The County of Bergen has a very active, well established, EMS academy certifying approximately 450 EMTs annually. It was determined that pursuing EMT education at BCC would be a poor use of resources and instead collaboration with the existing academy made more fiscal sense. Collaboration between BCC and the Bergen County EMS Academy was formed in fall 2012 which allows for a career pathway from EMT to Paramedic.

A full-time lecturer was hired for the 2013 spring and summer semesters to develop the curriculum and syllabi for the core paramedic courses. During the development of the program, it was decided to utilize a workforce model. The curriculum obtained internal and external approval from the BCC Curriculum Committee, Faculty Senate, Board of Trustees, and New Jersey Community College President's Council. Needs assessments were completed for lab/simulation space and equipment/supplies. Architect drawings were developed for the allocated Paramedic space. Funding for equipment was sought and obtained from HPOG, County capital funds and BCC operational support. During this same time, Advisory Board members were added to the Advisory Board to represent a more diverse representation of the stakeholders of the program. In spring 2013, the Advisory Board unanimously supported the curriculum design. A Medical Director was hired to review and guide the development of the curriculum, program assessments and outcomes.

As the LSSR (initial accreditation document) was being completed, it became clear that a permanent leader was needed to move forward with securing clinical affiliates and completing the CAAHEP – CoAEMSP accreditation process. The college hired a FT tenure track position for the Paramedic Science Program that started on September 1, 2013. This would also allow for daily program leadership, program development, acquisition of supplies and faculty and establishing an admissions process to ultimately recruit an inaugural class of students.

The admission criterion was established using EMS industry standards. Applicants will first be screened by achieving a minimum 2.5 GPA and having the ability to complete the required general education coursework by September 1. All applicants meeting these criteria are then required to complete a criminal background check. The results of the criminal background clearance are directly sent to the Dean of Health Professions to ensure completeness and validity in the process. Applicants clearing criminal background check will move forward to complete the Health Education Systems Incorporated (HESI) admissions test and EMT skills audit.

The HESI exam is administered at a Pearson testing center. The HESI exam is intended on assessing minimum competence on various general education topics. The exam was used for two admission cycles and it was determined that since the majority of the Paramedic Science applicants are in progress of completing their general education coursework, the exam was unreliable to use as part of the admissions process. Since the program was using the EMT skills audit, it was believed that program had sufficient evaluation of candidates. In the fall 2015 semester, the program director pursued official approval to remove the HESI test as a requirement for entrance into the program. Approval was obtained and the admission criterion was officially modified for the fall 2016 admission process.

The EMT skills audit is administered at the Lyndhurst campus by the Paramedic Science faculty. The screening utilizes an evaluation of performance related to two EMT simulation scenarios, one clinical skill evaluation, professional demeanor and the ability for the candidate to follow directions and adhere to due dates through the process. All of the evaluations utilize assessment rubrics to obtain raw score data. Shortcoming identified in the simulation scenarios, is evaluated and used as part of the orientation process.

Clinical affiliates were secured with appropriate contracts during the fall 2013 semester. A diverse group of affiliates was recruited to offer an appropriate number of patient contacts and to meet benchmarks set for the program. A full time/ faculty lecturer was hired September 1, 2014 to serve as the program's clinical coordinator. Additional clinical affiliates and rotations were established during the 2014-2015 academic year to expand the clinical learning opportunities available to students.

The first class of students was accepted for the fall 2014 - 2015 academic year. The admission process was established similarly to the already existing health profession programs in the division. The only additional requirement added was an EMT skills audit to evaluate minimum skills performance of prospective students. The screening uses rubrics for evaluation of skill performance, affective domain assessment and a written EMT test.

Adjunct faculty members were selected using criteria approved by the advisory board. Each member is oriented to the standards of the program prior to being placed in a solo teaching capacity. Evaluations are collected about the faculty and a Plan of Action (POA) is developed after evaluation of the feedback from the students. Faculty development is offered at our semester faculty meetings and adjunct conference.

Field preceptors were selected with assistance from the clinical affiliate's EMS Educators/EMS Clinical Managers. Preceptors were provided with hands-on orientation session at the college and encouraged throughout the field time via email blasts. The on-site adjuncts have expanded since the first class, with selection provided through feedback from students' evaluations from field externship. More preceptors will be added in preparation for the next field externship cycle.

A variance has been approved for building a permanent parking pad for the Med Simulation Unit (MSU) adjacent to the paramedic space. The parking pad will include data and power and be located closer to the Paramedic Science egress allowing for better utilization of this resource.

The ISSR (initial full self-study document) was developed and submitted to the CAAHEP – CoAEMSP national accreditation committee. The feedback received was positive and a site visit is being organized with the goal of achieving full accreditation status.

BCC's commitment to teaching excellence has supported student success and the success of the Paramedic Science Program. The college is committed to offering a quality educational experience. The BCC Paramedic Science Program is a dynamic program meant to serve the stakeholders of the EMS profession. The partnerships built with the EMS community and our clinical affiliates allow the program to succeed.

The program focuses on emerging Emergency Medicine trends while teaching the fundamental skills necessary to produce effective graduates and providers that efficiently interact with patients in a safe and professional manner.

FOCUS ON STUDENTS

The Paramedic Science Program is focused on student success. The expectations are clearly communicated in both written and verbal form. The syllabi, which include grading formulas and rubrics, are shared at the beginning of each course. Students receive ample formative feedback regarding their performance in the areas of cognitive, psychomotor and affective domains of learning in all courses. Cognitive assessments include quizzes, tests, patient case research studies, journal article review cases and a comprehensive written exam. Psychomotor assessments include skill quizzes, a comprehensive skills final exam and community service learning project. Affective assessments are gathered with feedback from peers, faculty members and clinical/field preceptors and a narrative medicine journal is assigned.

Tutoring is offered by graduates, adjunct faculty and field preceptor and includes techniques for diverse learning styles of the students. Students assess their learning styles. The learning styles are collected by the Director and tallied. The information is shared with lecturers and skill faculty. Faculty and preceptors of the program also assess their learning style. This helps facilitate teaching to all learning styles. Techniques for success by each learning style are shared with faculty and preceptors to promote its use with students.

In the field courses, goals are developed by preceptors and students after every shift. At the start of each shift, goals are reviewed and modified as necessary. The clinical coordinator monitors the goals for trending and responds as needed. Remedial plans are developed by the program director, clinical coordinator and medical director with outlined required actions, a re-evaluation period and possible outcomes from the remedial plan if expectations are not met.

Each semester, and at the conclusion of the program, there is a summative assessment of cognitive, psychomotor and affective learning. The criteria of assessment is shared with students and well understood. The final summative assessment, named the terminal competency, is administered by the Program Director and Medical Director.

The program seeks continual feedback from faculty and students to identify trends before they can become weaknesses effecting student performance. The information obtained is used to identify goals for program and faculty development. Performance objectives are based on trends obtained through the evaluation of student grade and feedback as well as including less formal feedback opportunities.

Formal planning and evaluation for the program is scheduled to coincide with the Program's collection of student, employer, and graduate surveys. End-of-semester data is combined with survey results to provide a clear picture of the Program's strength, weaknesses and progress. Results are correlated to existing Program goals; active goals that are revised accordingly. Attrition and topic-specific performance data from the NREMT exam reports are reported to the Advisory Board to garner feedback regarding action plans for improvement. A year-end summary is also provided to the college administration and Advisory Board to determine if any adjustments are needed.

Student Demographics

Year	Number	Female	Male	Caucasian	Hispanic	Black	Asian	Other
2014-	10	7	10	9	0	0	0	1
2015								
2015-	13	6	7	9	2	0	1	1
2016								

Student Satisfaction

Surveys are emailed to graduates 6 months after graduation by the BCC Center of Institutional Effectiveness. This allows graduates to be working in the profession and provide useful feedback for improvement. At the time 2015 graduate surveys are currently being conducted from graduates and employers.

At the end of each course, data is collected from Smart Evaluation[®] Tool. The following are comments captured at the end of spring 2015 semester.



Learning Outcomes Assessments

Formative and summative assessments are used throughout the program to help students know how they are progressing. Summative assessments are used to confirm skill competence and end of semester learning. Formative assessments include: outline review and feedback for assigned research and community service projects, narrative medicine journals, textbook chapter tests, debriefing in medical simulation, practice skill quizzes, clinical reflection paper assignments and debriefing with preceptors during clinical and field shifts.

Summative assessments include: course quizzes, tests, research reports, comprehensive cognitive final exam, comprehensive practical skill quizzes, behavioral (affective) assessments, community service projects, patient case studies, medication cards and clinical/field evaluation scoring.

The program utilizes Scantron® answer sheets and item analysis for each assessment. Analysis is used to validate test questions. Assessments are kept with item analysis and changes are made as needed to meet validity standards. Additionally, the assessments have been reviewed by the medical director for medical content and accuracy.

Didactic Assessments:

Formal quizzes are administered approximately once every 3 weeks. Web-enhanced reading quizzes are administered with each assigned chapter. Web-based reflective questions provided by physician faculty to connect assigned readings to learning objectives. Tests are administered 2 times per semester, with a cumulative final exam at the end of each semester.

Lab/Simulation Assessments:

A debriefing is provided at the end of each scenario to highlight the assigned learning objective for the simulation. Clinical skill quizzes are offered a minimum of 10 times per semester. Students complete a community service project and receive a grade using a rubric. Behavioral assessments are provided at least 2 times per semester. A comprehensive practical final exam is given at the end of the semester.

PAR 101 Principles of Paramedic Science I Quizzes (3) Assigned Reading Chapters Quizzes (10) Tests (2) Pathophysiology Report (1) Comprehensive Final Written Exam (1)

PAR 102 Paramedic Patient Care Techniques I Quizzes (3) Assigned Reading Quizzes (10) Tests (2) Narrative Medicine Journal (6) Comprehensive Final Written Exam (1)

PAR 103 Paramedic Diagnostic Methods I Semester Skill Quizzes (10) Community Service Project (1) Behavioral (Affective) Assessments (2) Comprehensive Practical final (1) PAR 200 Paramedic Cardiac and Trauma Care Advanced Cardiac Life Support (ACLS) Pretest Advanced Cardiac Life Support (ACLS) Test Advanced Cardiac Life Support (ACLS) Practical PreHospital Trauma Life Support (PHTLS) Pretest PreHospital Trauma Life Support (PHTLS) Test PreHospital Trauma Life Support (PHTLS) Practical

PAR 201 Principles of Paramedic Science II Quizzes (3) Assigned Reading Chapters Quizzes (10) Tests (2) Pathophysiology Report (1) Comprehensive Final Written Exam (1)

PAR 202 Paramedic Patient Care Techniques II Quizzes (3) Assigned Reading Quizzes (10) Tests (2) Narrative Medicine Journal (1) Comprehensive Final Written Exam (1)

PAR 203 Paramedic Diagnostic Methods II Semester Skill Quizzes (10) Community Service Project (1) Behavioral (Affective) Assessment (2) Comprehensive Practical final (1)

Clinical Internship Assessments:

Students are evaluated by the Clinical Preceptor at the conclusion of every clinical shift. Written feedback utilizing a standardized tool is provided to the student. Written assignments, patient case studies, and web-enhanced discussion posts are assigned for each clinical area. The faculty review these assignments for completeness and accuracy and grade them using a rubric. A Behavioral/Affective Assessment is conducted at least twice per semester. A written final exam is administered at the conclusion of each phase of the clinical internship. The student's overall progress is evaluated at regular intervals during the clinical internship, and a plan of action developed to address any areas in need of improvement.

PAR 104 Paramedic Clinical Concepts I Patient Case Study (all averaged) (5) Medication Cards (all averaged) (20) Timely submission of assignments Final Written Exam (1) JAR – Journal Article Report (1) PAR 204 Paramedic Clinical Concepts II Patient Case Study (all averaged) (13) Medication Cards (all averaged) (30) Timely submission of assignments Final Written Exam (1) JAR – Journal Article Report (1)

PAR 205 Paramedic Clinical Concepts III Resume (1) JAR Presentation (2) Narrative Medicine Journal (15) Tests (2) Behavior Assessment (2)

Field Externship Assessments:

Students are evaluated by their Paramedic Preceptor at the conclusion of each field shift. Using a standardized evaluation tool, written feedback is provided to the student. Written assignments, patient case studies, and web-enhanced discussion posts are assigned for each phase of the internship. The faculty reviews these assignments for completeness, accuracy and grades them using a rubric.

A Behavioral/Affective Assessment is conducted at least twice per semester. A written final exam is administered at the conclusion of the field internship. The field internship is divided into four phases and an evaluation of the student's overall progress is completed at the conclusion of each phase. If the end of phase evaluation identifies that any of the phase objectives have yet to be met, a plan of action is developed and must be completed prior to advancement.

PAR 206 Paramedic Field Externship I Patient Case Study (all averaged) (12) Timely submission of assignments Tests at each phase (3) Downtime Accountability Log

PAR 207 Paramedic Field Externship II Leadership Capstone Project (1) Timely submission of assignments Downtime Accountability Log Terminal Competency - didactic, psychomotor and affective

A Terminal Competency Assessment is conducted after the student has successfully completed all courses in the Program. The terminal competency assessment includes medically-sound scenarios utilizing high-fidelity simulation, written exam and affective domain evaluation. The Medical Director and Program Director meet with each student to evaluate the outcomes of the assessments.

Student Success Program Retention:

Year	Number Began	Withdrawal for personal reasons	Did not meet minimum program standards	Number Graduated
2014-2015	10	1	2	7
2015-2016	13	0	2	In progress

NREMT Licensing Exam Results Written Exam

Year	Number attempted	1 st attempt Pass	2 nd Attempt Pass	3 rd Attempt Pass
2014-2015	7	7		
2015 - 2016	In progress			

NREMT Licensing Exam Results

Practical Exam

Year	Number attempted	1 st attempt Pass	2 nd Attempt Pass	3 rd Attempt Pass
2014-2015	7	5	1	1
2015 - 2016	In progress			

NREMT National Exam Results

Practical Exam

Year	1 st attempt Pass
2014	77
2013	73
2012	74

https://www.nremt.org/nremt/downloads/NREMT%202014%20Annual%20Report%20.pdf

Employment rates for graduates

Year	Number of graduates	Employed by 3 months	Employed by 6 months
		after graduation	after graduation
2014-2015	7	5	7
2015 - 2016	In progress		

The Center for Institutional Effectiveness is currently capturing surveys from graduates and employers about our program. This data will be used to improve the program. Obtaining further feedback from the clinical and field preceptors (who are primarily not employed by BCC) is a goal for next year. Obtaining this information will help to provide a holistic view of the progress students make through the program. It could also serve as feedback to enhance specific areas or topics within the curricula which otherwise maybe overshadowed because of our overwhelming successes.

FOCUS ON FACULTY AND STAFF

Our faculty are well versed in adult education theory and utilize techniques to enhance learning based on those principles. Applicants with instructor status in certification courses and NAEMSE Instructor courses are preferred during the selection process. Leadership of the program attends faculty development sessions to ensure continued education in the field of academic learning and current trends in higher education.

Didactic Courses: Interactive lecture styles including use of videos, small group interaction, flipped classroom techniques and stimulus labs to keep learners engaged.

Lab/Simulation Courses: Use of appropriate simulation modalities for curriculum taught. Modalities include: experiential activities, task trainers, mid fidelity, high fidelity, standardized patients, hybrid (two or more modalities) and creative activities appropriate for objectives (team building/incident management).

Clinical Courses: Preceptors are utilized in these courses to ensure safe patient care experiences. Methodologies used include: observation only and preceptor observed skill performance.

Field Courses: Preceptors are utilized in these courses to ensure safe patient care experiences. Methodologies used include: observation only and preceptor observed skill performance.

Demographics

Our faculty members are committed to lifelong learning. They attend state and national conferences. They are sought after to present on cutting edge topics impacting current issues in emergency medicine. All faculty members hold the required certifications for their appointments. Our faculty members are leaders in the field, helping to instruct in the diverse topics required within the curriculum. The teams of faculty members are more educated and diverse than national trends within the EMS profession. The diversity of backgrounds allows for depth of knowledge and proper navigation of the various skills required for the profession.

Presently there is one full time tenure track member and one lecturer member in the department. The full time tenure track member serves as the program director and the lecturer serves as the clinical coordinator. The number of adjuncts used each semester is determined by student enrollment and need. The design of the program was intended to have two tenure track faculty members to ensure student success, meet the ever changing curriculum needs due to emergency medicine changes that occur, secure and maintain the best clinical affiliate rotations, recruit and develop an outstanding adjunct and preceptor team and obtaining and excelling at state and national accreditation.

Gender

- There are a total of fourteen faculty members regularly instructing our students. Five are female and nine are male.
- The national average of female providers is 28% (most recent report is June 2008) <u>http://www.ems.gov/pdf/EMSWorkforceReport_June2008.pdf</u>

Ethnicity

- There are a total of fourteen faculty members regularly instructing our students. Twelve are Caucasian (86%), one is Hispanic (7%) and one is other ethnic group (7%).
- The NREMT reports Caucasian (75%), Hispanic (5%), Black/African American (3%) and Other ethnicity (2%) <u>http://www.ems.gov/pdf/EMSWorkforceReport_June2008.pdf</u>

Education

- There are fourteen faculty members regularly instructing our students. Five hold Masters Degrees (36%), seven hold bachelor degrees (50%) and 2 hold AAS degrees (14%).
- The national averages for degree prepared providers is some college (43%), a Bachelor's degree (23%) and an Associate's degree (21%).

https://www.nremt.org/nremt/downloads/Appendix%20C_Longitudinal_Fact%20Sheet.pdf

Full Time Faculty and Leadership of the program Jennifer McCarthy MAS, NRP, MICP Associate Professor/Program Director

Professor McCarthy is a leader in the EMS profession with over 25 years of pre-hospital patient care experience and 15 years leading academic based paramedic education. She is a national speaker sought after for her innovation and interest in using healthcare simulation to improve patient safety. She has been the recipient of numerous awards during her career for activities in patient care excellence, teaching style and most recently a life time achievement award in EMS. In EMS she serves in an advisory capacity to the Department of Health and Human Services – Office of Emergency Medical Services, is a state EMT faculty member, a member of the NJ Association of Paramedic Programs and the MICU Advisory Council. In healthcare simulation, she is a member of the international accreditation committee, an accreditation program reviewer, item writer for certification exams for the Society of Simulation in Healthcare.

During her career, Professor McCarthy has held leadership positions in EMS Operations and EMS Education. Professor McCarthy has received various teaching excellence awards and is a national speaker. She is well known in the EMS community for her passion on advocating for the advancement of EMS providers through professional learning activities that validate the practices of the industry.

In addition to her passion for EMS Education, she has over 15 years of experience designing, implementing and expanding medical simulation programs. She has advocated for the uses of medical simulation in health profession programs and continues to educate herself on cutting edge emergency medicine trends and medical simulation education theory.

In 2011, Professor McCarthy became a Reiki practitioner and enjoys helping clients achieve better balance and ability to manage daily stressors. Through her journey of becoming a Reiki practitioner, she learned new ways to achieve inner peace and hopes to share these techniques to better prepare students to work more effectively within the stresses of the EMS profession.

Professor McCarthy began her career at BCC serving as a consultant for the Health Profession Division completing the environmental scan and establishing an advisory meeting for evaluation of need for the program. Her visionary spirit led the development of an AAS curriculum allowing students to use already earned credits towards the completion of the degree, being awarded the only state waiver requiring hospital sponsorship from the Department of Health to allow students to complete clinical rotations at many affiliates and designing a state of the art simulation facility that uniquely prepares students for the rigors of the EMS profession. The connection she provides her students by being an active healthcare provider and academic leader has resulted in an education process that now serves as a model for others in the industry.

Joanne Piccininni MBA, NRP, MICP Lecturer/Clinical Coordinator

Professor Piccininni is a leader in EMS Educator with over 20 years of pre-hospital experience and over 10 years coordinating advance life support education. In EMS she serves in an advisory capacity to the Department of Health and Human Services – Office of Emergency Medical Services, a member of the NJ Association of Paramedic Programs and the MICU Advisory Council. She is also active with NAEMT, National Association of EMT's as Affiliate Faculty in NJ and was most recently appointed to the position of NAMET Education Coordinator for NJ.

Professor Piccininni attended Paramedic/Prehospital training in north-central Pennsylvania at one of the first accredited programs in the country. This distinction is what drew her to leave her New Jersey roots to immerse herself in the field of Paramedicine and learn from some of the most well respected educators of the time. Upon graduation, she returned home to work for a hospital-based MICU where education was a focus and priority. This gave her the first opportunity in teaching as a Pre-Hospital Trauma Life Support instructor.

She was offered the opportunity to lead an MICU Clinical department, along with the hospital's American Heart Association Training Center, and forged ahead in the field of adult education. This led to many networking and self-education opportunities within the field of EMS and education, not only in New Jersey but also on a national level. As the hospital's Advanced Cardiac Life Support expert, she reviewed all cardiac arrest cases and presented on areas of improvement and advancement to the QA/QI group as well as the PI team monthly. With this experience came other offers of leadership and she moved on to another Emergency Services department to bring her innovative ideas of education, quality improvement, paramedic competency and pre-hospital clinical initiatives.

Building a very robust prehospital EMS continuing education program, she has facilitated the learning of many EMT's and Paramedics in Bergen County and the surrounding areas. With her newly appointed position with the NAEMT as Education Coordinator for NJ, she hopes to expand this program to be able to offer more learning opportunities as well as increase the numbers of those taught.

In her tenure at BCC as the inaugural Clinical Coordinator for the Paramedic Program, Professor Piccininni has developed valuable relationships with the clinical affiliates and broken ground in unprecedented areas to enable the students to have unique experiences. She is an advocate for the advancement of EMS and education, and this has translated into important growth and development of the program. She continues to use her ability to motivate and mentor the students to success in the program and as entry-level Paramedics in the field. Conducting specialty lectures, such as trauma, for the students enables her to bring previous and current experiences as

a practicing healthcare provider to the classroom. Through their ability to work together as a cohesive team, she and the Director have been able to provide many growth and development opportunities to the program and the students. This has translated into the opportunity to continually approve upon the education process and learning experiences in the clinical and field rotations as well as didactic knowledge for the students.

Professor Piccininni has always held the student's learning, motivation and progress in high regard as very important priorities and continues to look towards her self-improvement to be able to empower the student's to achieve their goals.

Name and Rank	Professional Activities
Instructor Denise	Actively practicing New Jersey Mobile Intensive Care RN
Arzoomanian/Adjunct	Actively practicing New Jersey Emergency Department RN
	CAAS committee chair, EHMC EMS
	NJAPP – New Jersey Association of Paramedic Programs member
	NJ State MICU Advisory Council member
	NNJMICU- Northern New Jersey Mobile Intensive Care Consortium Educators Group
	committee member
	AHA training center regional faculty member, EHMC
	NJ State Paramedic Preceptor course
	Emergency Nurses Association member
Instructor John	Actively practicing New Jersey Paramedic
Cronin/Adjunct	NJ State Paramedic Preceptor course
	Every 15 Minutes Program Coordinator Northern NJ
	Selective Spinal Restriction presentation given to Bergen County EMS units
Instructor Joseph	Actively practicing New Jersey Paramedic
Frei/Adjunct	NJ State Paramedic Preceptor course
-	Actively teaching in AHA instructor courses
Instructor Joshua	Actively practicing New Jersey Paramedic
Hartman/Adjunct	American College of Healthcare Executives
	AHA Mission Lifeline
	Faculty, Innovations in Cardiovascular Interventions
	Faculty, NJ statewide EMS Conference 2015
	Englewood Hospital AHA Training Center Faculty
	CAAS Committee Member EHMC EMS
	RSI QA Committee Member EHMC EMS
	NJ State Paramedic Preceptor course
Instructor Yan	Actively practicing New Jersey Paramedic
Kulbanskiy/Adjunct	NJ State Paramedic Preceptor course
	Actively teaching in AHA instructor courses
Instructor Dennis	Actively practicing New Jersey Paramedic
Kruk/Adjunct	Clinical Coordinator for North Arlington Volunteer Emergency Squad
	NJ State Paramedic Preceptor course
	Actively teaching in AHA instructor courses
Instructor Michael McCabe	Actively practicing New Jersey Paramedic
	NJ State Paramedic Preceptor course
	McCabe training Institute Director, Bayonne New Jersey
	OEM EMS County Coordinator, Hudson County
	New Jersey State EMS Task Force, Tactical Manager
	Rescue Task Force design and initiator, Hudson County
	EMS Director of the Year, New Jersey EMS Council Award, 2015
	Public Service Provider of the Year, Bayonne New Jersey, 2015

Professional Activities

Professor Jennifer McCarthy	Actively practicing New Jersey Paramedic
	NJ State Paramedic Preceptor Course Coordinator
	NJAPP – New Jersey Association of Paramedic Programs member
	NJ State MICU Advisory Council member
	NNIMICU- Northern New Jersey Mobile Intensive Care Consortium Educators Group
	committee member
	SSIH – Society of Simulation in Healthcare – Accreditation Committee Member
	Program Site Reviewer, Certification Committee member, Certification Exam Item
	Writer and FMS Affinity group committee secretary
	NREMT program director
	EMS Lifetime Achievement Award New Jersey EMS Council Award 2015
	Named Top 17 Deeple to Watch in Healthcare, 201 Magazine Japuary 2015
	Standards of Dest Drestice, Simulation Standard VIII, Simulation Enhanced
	Standards of Best Practice: Simulation Standard VIII: Simulation-Enhanced
	Interprotessional Education (Sim-IPE). Clinical Simulation in Nursing June 2015 volume
	11, Issue 6, Pages 293–297.
	New Jersey Statewide EMS Symposium presenter, sim games design team
	NAEMSE National Association of EMS Educators Symposium presenter
	HSPN – CAE Medical Simulation Symposium 2016
	SUN - Simulation User Network presenter 2015 Laerdal Medical Corp/Holy Name
	Medical Center
	IMSH International Medical Simulation Meeting presenter
	Fire House World presenter 2014
Instructor John Nichols	Actively practicing New Jersey Paramedic
	NJ State Paramedic Preceptor course
	Counter Terrorism Joint task force FBI/Essex County Prosecutor
	Actively teaching in AHA instructor courses
	New Jersey Department of Criminal Justice Arson Instructor
	Essex county College Police Academy (CPR/1st Responder/TCCC) Instructor
Instructor Stephanie	Actively practicing New Jersey Paramedic
Niemiec	NJ State Paramedic Preceptor course
	Thomas Edison BA(c) anticipated graduation 6/2017
	Actively teaching in AHA instructor courses
	Every 15 Minutes Program Committee Member Northern NJ
Instructor Nestor Paz	Actively practicing New Jersey Paramedic
	NJ State Paramedic Preceptor course
	Class B award exceptional performance under difficult circumstances. Robert Wood
	Johnson University Hospital MHS May 2015
	Class B award in recognition for exceptional performance under difficult circumstances.
	Robert Wood Johnson University Hospital MHS May 2015
	Actively teaching in AHA instructor courses
Professor Joanne Piccininni	Actively practicing New Jersey Paramedic
r totossor soume r teennin	NI State Paramedic Precentor course
	NIAPP – New Jersey Association of Paramedic Programs member
	NI State MICU Advisory Council member
	NNIMICII- Northern New Jersey Mobile Intensive Care Consortium Educators Group
	committee member/ Refresher co-coordinator and presenter
	AHA training center regional faculty member EHMC
	NAFMT National Association of EMTs - NI State Education Coordinator/
	Member/PreHosnital Trauma Life Support Affiliate Faculty
	NAEMSE National Association of EMS Educator member
	The Velley Heavitel Emergency purses Trauma Sumposition and the Multi-
	Administration facilitator
	Advanced Studies Life Support (ASLS)
	Advanced Stroke Life Support (ASLS) course coordinator
	NAEMI PEPL – Principled of Ethics and Personal Leadership course coordinator
	NNJMICU - Northern New Jersey Mobile Intensive Care Consortium Paramedic

Instructor Deborah Richeal	Actively practicing New Jersey Paramedic
	NJ State Paramedic Preceptor course
	Actively teaching in AHA instructor courses
Instructor Sean Scott	Actively practicing New Jersey Paramedic
	NJ State Paramedic Preceptor course
	Excelsior School of Nursing anticipated graduation 8/2016
	Columbia Southern University School of Business – BS/BA(c) anticipated graduation
	12/2016
	Bergen County Special Operations Unit Member
	CAAS Committee Member HUMC EMS
	HUMC EMS Excellence Award 2016
	Comfort Zone Volunteer, a nonprofit bereavement camp that provides therapeutic and
	recreational services to children who have experienced the death of a parent, sibling, or
	primary caregiver.

Adjunct Faculty

Building a cohesive faculty team has been a top priority of the leadership of the program. Health Profession programs inherently require team building since clinical skill practice is based on geographic or health care policy. One of the successes of our program is the deep desire and buy-in in by the faculty to adopt a single method or approach to the patient clinical skills. An indepth skill book has been developed and is used as the standard for instruction and evaluation.

Adjunct members are oriented to the skill standards and medical simulation practices before being placed in an instructional capacity. Faculty mentors are used to ensure transition from novice to experienced adjunct. All of the faculty members have instructor certification statuses in the various subject topics. These outside instructorships help maintain the medical accuracy of the instruction. Additionally, all of the faculty members are active patient care providers which serve as support to maintaining a current evidence based practice. Adjunct members are encouraged to attend college-wide education initiatives and meetings for further education advancement.

Communication with the faculty is mostly facilitated from the director via email. Faculty meetings are held at a minimum of two times per year and include program process improvement initiatives. Each adjunct member is provided feedback from students at a minimum of twice per year. As a result of this feedback, faculty members develop a Plan of Action (POA) in consultation with the director. 360 degree feedback from peers is captured annually to help faculty members hone their instructional style.

Name	Date of Appointment Position	Education	Patient Care Years Credentials	Instructorships	Teaching area (T) Other responsibilities (O)
Instructor Denise Arzoomanian	Fall 2014 Adjunct	MSN, BSN, MICN, CEN	25 years NJ RN License 26N011132100 MICN 507382	AHA ACLS AHA PALS AHA BLS	T – clinical courses O – program assessment fellow
Instructor John Cronin	Fall 2015 Adjunct	BS(c), NRP, MICP	17 years National P8025523 NJ MICP 529290	AHA ACLS AHA PALS	T- skills lab/simulation O - Tutoring
Instructor Joseph Frei	Spring 2015 Adjunct	AAS, NRP, MICP	14 years NJ MICP 523470	AHA ACLS AHA PALS	T – skills lab/simulation O – Formative Assessment
Instructor Josh Hartman	Fall 2014 Adjunct	MBA, NRP, MICP	24 years National M0900179 NJ MICP 544473	AHA ACLS AHA PALS AHA BLS ITLS	T – skills lab/simulation O – diverse guest lecture
Instructor Yan Kulbanskiy	Fall 2014 Adjunct	BS, NRP, MICP	22 years National M0954110 NJ MICP 556944	AHA ACLS	T – skills lab/simulation O - Tutoring
Instructor Dennis Kruk	Fall 2014 Adjunct	BS, NRP, MICP	23 years National M0985383 NJ MICP 503605	AHA ACLS AHA BLS PHTLS	T- skills lab/simulation O – Formative Assessment IPE simulations
Instructor Michael McCabe	Spring 2015 Adjunct	BS, NRP, MICP	17 years National P8028191 NJ MICP 503605	AHA ACLS AHA PALS AHA BLS	T- skills lab/simulation O – Special Operations
Professor Jennifer McCarthy	Spring 2013 Associate Professor	MAS, NRP, MICP	26 years National M5011188 NJ MICP 509164	AHA ACLS AHA PALS	T – curriculum implementation O – development of simulation
Instructor John Nichols	Fall 2015 Adjunct	MS, MICP	30 years NJ MICP 563533	AHA ACLS AHA PALS	T- Skills lab/simulation O – A&P review
Instructor Stephanie Niemiec	Fall 2104 Adjunct	BS(c), MICP	20 years NJ MICP 566303	AHA ACLS AHA PALS	T- Skills lab/simulation O – program supply management
Instructor Nestor Paz	Spring 2015 Adjunct	BS, NRP, MICP	19 years National M0930537 NJ MICP 506978	AHA ACLS	T – Skills lab/simulation O – Cultural Competence
Professor Joanne Piccininni	Fall 2014 Lecturer	MBA, NRP, MICP	23 years National M0881298 NJ MICP 518798	AHA ACLS AHA PALS PHTLS Coordinator	T – certification course coordination O – clinical and skill management
Instructor Deborah Richeal	Fall 2105 Adjunct	AAS, NRP, MICP	30 years National M0881298 NJ MICP 518798	AHA ACLS AHA PALS AHA PEARS PHTLS	T – skill lab/simulation O – Formative Assessment
Instructor Sean Scott	Spring 2015 Adjunct	BS/BA(c), MICP	23 years NJ MICP 528317	AHA ACLS AHA PALS	T – skill/ lab simulation O – skill validation for lab and clinical

Staff

Clerical support is provided by the Meadowlands academic affairs administrative assistant. The administrative assistant spends a portion of their day assisting with tasks in the Paramedic Science space. This support has been essential for establishing a filing system, process for providing accurate program information to prospective students, assisting with ordering supplies, and assistance during high stakes assessments and general work flow improvement.

The staff at the Meadowlands campus has been essential to achieving the goals and objectives of the program. Student Services assist the students with academic and personal counseling. Library support is available for the student's information literacy assignments. The Dean of the Meadowlands and her administrative staff have facilitated an easy transition and have helped meet the diverse needs of the students and the program.

Despite being located full time in Lyndhurst, support is ongoing from the Health Profession Dean and administrative support in Paramus. Dean Barnard's leadership and facilitation with fiscal support has been impressive in securing the necessary supplies, equipment and teaching space to offer a realistic learning space that uniquely prepares the students for the rigors of the profession. The administrative support in Paramus assists with supply orders, dissemination of information to the program faculty and staff and general valuable facilitation that allows us to meet our goals.

FOCUS ON CURRICULUM

New Jersey's system for paramedic education is somewhat unique in its structure. The current state regulation requires the need for students to obtain hospital sponsorship to attend a paramedic education program. This results in the clinical and field education to be separated from the academic learning. In an effort to establish a learning experience with academic oversight through all portions of the program, Bergen Community College offers an educational experience that does not require hospital sponsorship. This was accomplished with the acquisition of a waiver for hospital sponsorship from the New Jersey Department of Health and Human Services.

We are proud that all of our students graduate with an AAS in Paramedic Science. All students complete the required general education ahead of the core courses to offer an immersive education experience that dives deep into emergency medicine principle and practice. Our program is a one year, full-time, all inclusive curriculum. This requires a four day per week commitment from our students. No other program in the state of New Jersey requires students to have this depth of general education course work or schedule.

Our prospective students apply when they have completed 26 credits of general education (year one of the AAS curriculum). Our program utilizes a screening process for applicants that consist of a validated written EMT test, practical performance including assessment of basic EMT scenarios and an affective domain assessment. All of the evaluations utilize rubric assessment tools. Based on the immense commitment of time and effort required for success in our program, we feel this screening process allows candidates to engage in an immersive session experiencing medical simulation and cognitive testing while offering the program the ability to obtain vital information about the performance of the prospective student.

The program uses a high percentage of medical simulation initiatives to build mental models through the curriculum. The design allows for deeper discussion on topics both in the classroom and in lab/simulation. On campus, students are immersed in medical simulation with the intention of meeting skill expectations in both clinical and field rotations.

We offer students the highest quality clinical experiences through active recruitment and continued facilitation of open communication with our clinical and field affiliates. For the field externship rotations, we offer rotations at suburban, urban and rural paramedic units giving students the opportunity to function in all geographic response areas available in New Jersey. This saves the EMS system time and resources by providing a workforce that is informed about the different work environments prior to their future employment.

Inter-professional education (IPE) opportunities are also part of our program. We offer students to learn side by side with other future health professionals. IPE projects include respiratory care, nursing, surgical technology, emergency residents and EMS fellows.

Summary of Program Curriculum

During the design phase of the program, the curriculum was designed to meet the needs of the paramedic profession. After a need assessment was completed, an advisory board including EMS leadership was convened to allow input about the curriculum and design. The program goals were identified and used as the foundation for the design of the program.

The curriculum has been reviewed through many processes at Bergen Community College. The curriculum was first presented to the Division of Health Professions and put forward for consideration for approval by the college wide curriculum committee. The curriculum was approved by the curriculum committee and then put forward to the Faculty Senate. Representatives from all divisions serve as members on the curriculum moved for approval by the academic leadership and Board of Trustees. The curriculum has also been evaluated and approved by the New Jersey State Council of Community Colleges and the Department of Education. Both external entities approved the curriculum. As part of the curriculum management process, our curriculum is evaluated by the Paramedic Science Department faculty and by other stake holders throughout the academic year.

The program offers a sequential curriculum where students progress through didactic coursework which is reinforced by lab and simulation experience with the requirement to demonstrate initial competence in a skill prior to attending clinical rotations. A student progresses to field externship after successful completion of PAR104 Paramedic Clinical Concepts I and PAR204 Paramedic Clinical Concepts II. The program curriculum consists of a minimum of 1509 hours with additional assignments as needed on individual student basis.

While the curriculum is integrated, safety measures are in place to ensure that effective sequence and student performance has occurred. The Program Director and Clinical Coordinator collaborate on assessing student progression in didactic, lab and clinical performance with remedial plans designed as needed to ensure student performance improvement.

Our curriculum prepares students for entry level employment and extensive depth of knowledge. Our graduates exit with a diverse resume, built over the course program, to include paramedic foundation material, specialty course certifications (ACLS, PHTLS, ASLS, ICS 100, ICS 200, ICS 700, PALS and CEVO) and preparation for specific New Jersey paramedic protocols.

The program evaluates student skill progress by reviewing our internet-based tracking system Typhon Group® to ensure compliance with the standards identified in the patient contact matrix (appendix G/H). Evaluation is done periodically as clinical scheduling is completed. Student skill totals are evaluated individually, by clinical schedule cohort and by clinical affiliate location. Students are not permitted to progress through the curriculum without meeting the minimums identified for each clinical course. Our clinical course skill minimums adhere to New Jersey state regulations that identifies specific clinical education requirements.

The PAR207 Paramedic Field Externship II course is offered at the end of the program and serves as the final course in the sequence of the curriculum. The course objectives offer students the ability to achieve the program required team leads and complete a capstone research project

as well as terminal competency. There is an ample number of clinical affiliates to offer students the experience necessary to achieve competence in team leads in the pre-hospital environment.

Required P	Paramedic (Course Sequence	
Program: Health Professions – Paramedic Science			
Degree: Associate in Applied Science			
Code: AAS.HP.PAR			
Program Length: 24 months			
Preadmissions: HESI Exam, Program Admissions Exa	m and EMT skill	s audit, Active NJ EMT License	
GPA for admissions eligibility: 2.50			
High School prerequisite courses: 1 year science (colle	ege placement B	Biology with lab) and 1 year Algebra	
College Substitutions: BIO109, BIO209, WRT101, WR	T201 or WRT20	2, PSY101, PSY201, SOC 101 and MAT 100 elective	
Application Deadline: February 1			
Program Admits: Fall Semester			
Note: This regional program utilizes clinical education s	sites throughout	the state of NJ. Students will be required to travel to dista	int
sites and provide their own transportation.			
GENERAL EDUCATION REQUIREMENTS	20	RECOMMENDED SEMESTER SEQUENCE	
Communication	6	First Semester	
WRT101 English Composition I	3	BIO109 Anatomy & Physiology I	4
WRT WRT201 English Composition II or	3	MAT Mathematics Elective*	3
WRT202 Technical Writing		PSY101 General Psychology	3
		WRT101 English Composition I	3
Humanities and Social Sciences	6		13
PSY101 General Psychology	3		
SOC101 Sociology	3	Second Semester	
		BIO209 Anatomy & Physiology II	4
Mathematics, Natural Sciences, & Technology	8	PSY201 Child Psychology	3
BIO109 Anatomy & Physiology I	4	SOC101 Sociology	3
RIO200 Apatomy & Physiology II	4	WRT WRT201 English Composition II	3
BIO209 Anatomy & Physiology II	4	or WRT202 Technical W/riting	3
			13
PROGRAM REQUIREMENTS	40		10
PAR101 Principles of Paramedic Science I	40	Third Semester	
PAR102 Paramedic Patient Care Techniques I	4	PAR101 Principles of Paramedic Science I	4
PAR103 Paramedic Diagnostic Methods I	3	PAR102 Paramedic Patient Care Techniques I	4
PAR104 Paramedic Clinical Concents I	3	PAR102 Paramedic Diagnostic Methods I	т 3
ANTO- Parametic Clinical Concepts 1	5		5
PAR200 Paramedic Cardiac & Trauma Care	2	PAR104 Paramedic Clinical Concepts I	3
PAR201 Principles of Paramedic Science II	4		14
PAR202 Paramedic Patient Care Techniques II	4		
PAR203 Paramedic Diagnostic Methods II	3	Winter Term	
PAR204 Paramedic Clinical Concepts II	3	PAR200 Paramedic Cardiac & Trauma Care	2
PAR206 Paramedic Field Externship I	4		2
PAR205 Paramedic Clinical Concepts III	4		
PAR207 Paramedic Field Externship II	2	Fourth Semester	
		PAR201 Principles of Paramedic Science II	4
		PAR202 Paramedic Patient Care Techniques II	4
PROGRAM SUPPORT REQUIREMENTS	6	PAR203 Paramedic Diagnostic Methods II	3
MAT Mathematics Elective*	3	PAR204 Paramedic Clinical Concepts II	3
PSY201 Child Psychology	3		14
TOTAL CREDITS	66	Summer Session	

66

Summer	Session	
PAR206	Paramedic Field Externship I	4
PAR205	Paramedic Clinical Concepts III	4
PAR207	Paramedic Field Externship II	2
		10

Specific Program Notes *Mathematics Elective: select MAT130 Contemporary Mathematics, MAT150 Statistics I, or MAT155 Finite Mathematics.

Students enrolled in this program **ARE REQUIRED** to successfully complete a course in basic algebra if indicated by Placement Testing.

Paramedic Science Curriculum Map

Identify in which courses the program learning outcomes are being taught and whether the program learning outcomes are introduced, reinforced or mastered.

	Program Learning Outcomes					
	Demonstrate	Manage pre-	Demonstrate	Perform	Achieve the	Obtain
	skill	hospital	critical thinking	competently	minimum	employment
	proficiency in	patient care	in decision-	in the roles	requirements	as an entry-
	all entry-level	utilizing	making	and	for eligibility to	level
	psychomotor	evidence-	processes to	responsibilities	sit for the	paramedic
	skills, utilizing	based	improve the	outlined in the	paramedic	with an EMS
	them when	emergency	health and	New Jersey	National	agency in New
	clinically	medicine and	welfare of pre-	state	Registry of	Jersey.
	appropriate	Paramedic	hospital	paramedic	Emergency	
	and at the	Science .	patients.	scope of	Medical	
	correct time to			practice.	Technicians	
	improve				(NREMT)	
	patient				paramedic	
	outcomes.				exam and	
					become	
					licensed as a	
					paramedic,	
					enabling the	
					student to be	
					eligible for	
					licensure in	
					New Jersey.	
					Demonstrate	
					professional	
					demeanor that	
					is outlined in	
					the Code of	
					Conduct for	
					the paramedic	
Program					profession.	
Specific						
Required						
Courses						
(Do not						
include						
Education						
courses or						
unrestricted						
electives.)						
,						

KEY: I – Introduced R – Reinforced / Practiced M – Mastery at exit level

PAR101	I – Introduced					
PAR102	I – Introduced					
PAR103	I – Introduced					
PAR104	I – Introduced					
PAR200	R - Reinforced					
PAR201	I – Introduced					
PAR202	I – Introduced					
PAR203	I – Introduced					
PAR204	I – Introduced					
PAR205	R - Reinforced					
PAR206	R- Reinforced	R- Reinforced				
PAR207	M - Mastery					
Criteria for	Assess utilizing	Assess utilizing	Assess utilizing	Assess	Successful	Assess
Success	а	а	а	terminal	completion of	graduate and
Outcomes	comprehensive	comprehensive	comprehensive	competence at	the Paramedic	employer
will be	written and	written and	written and	a minimum	Science	surveys.
assessed	practical final	practical final	practical final	pass score of	curriculum	
by:	exam	exam	exam	77% on the	meeting a	National
	achieving a	achieving a	achieving a	field	minimum 77%	Minimum
	minimum pass	minimum pass	minimum pass	externship	pass score on	Standards
	score of 77%	score of 77%	score of 77%	evaluations.	all competency	from CoAEMSP
	on each exam	on each exam	on each exam		evaluations.	(accreditation): Graduate
					Assess utilizing	employment
					an Affective	70%
					Behavior	
					Assessment	
					achieving a	
					minimum pass	
					score of 77%.	
					National	
					Minimum	
					Standards	
					from CoAEMSP	
					(accreditation):	
					NREMT/State	
					written exam	
					pass rate 70%	

All Paramedic Science course syllabi can be viewed in "Syllabi Central" <u>www.bergen.edu/academics/syllabi-central</u>

Curricular Issues

Feedback from the curriculum committee included accepting any 100 level math course rather than algebra as the math requirement for the program. The Math department completed an analysis of required skills for the profession and felt comfortable accepting any 100 level math course as part of the curriculum.

Initial feedback from the Council on Community Colleges required modification of some of the course descriptions. The Council felt that there wasn't enough delineation of progressive learning between the level I course and level II courses. The modifications were made and the curriculum was approved.

In regards to student skill performance, additional hours are assigned as needed to ensure that all students meet or exceed the minimum outcomes assigned to each course. These hours can be clinical, field or high fidelity simulation. This can result in students accruing more than 1509 curriculum hours. To date, this plan of action has worked effectively for the program.

Lead-in Courses

The general education courses provide the foundation knowledge required to allow for depth of discussion in the paramedic specific core courses. The general education has enough diversity to assist students with understanding difficult healthcare concepts and trends. Students are permitted to transfer in any general education courses as per the BCC transfer policy. Anatomy and Physiology courses must be completed within the last five years to ensure basic knowledge needed to pass the national licensing examination.

A successful student has obtained general education and affective domain competence to provide care to live patients in a clinical setting. The student must be able to function as an independent learner using downtime effectively and maximizing learning opportunities. Behavior competence is sometimes revered as the most important health care competence for licensure. Since the profession encompasses treating people and their families, human interaction skills are by far one of the most important skills needed to succeed in the program.

Follow-up Courses

Upon admittance, students are required to obtain:

Program uniforms

Liability malpractice insurance coverage

Accidental injury insurance coverage (if they do not have medical benefits)

Medical assessment attesting to physical fitness to perform the job of a paramedic, respiratory assessment for wearing an APR, clear urine drug screen and vaccination status for communicable diseases.

The curriculum courses build on themselves throughout the semester. Foundational skills are taught before moving to application of the skill within a higher critical thinking context. Students practice isolated skills prior to integrating them within a scenario. Daily, cognitive information is

taught in the morning and then practiced through low, mid and high fidelity in the afternoon. Students are performing the psychomotor skills they learned close to the time of learning. The program is designed as a full-time, four day per week commitment which immerses the student fully into an integrated curriculum of didactic, psychomotor and clinical/field. During the first six weeks of the program, students are on-site four days per week, gaining competence in initial skills required for clinical rotations. The courses on campus focus on techniques and best practice care in EMS and then lab/simulation practice. No skill performed in clinical is offered without first showing competence through evaluation in a controlled simulation environment. This model is used for both the fall and spring semesters. During the winter session, students complete requirements for ACLS and PHTLS certification on campus.

The clinical internship is divided into two phases - category one and category two. Category one is the entrance into the clinical experience allowing students to gain isolated skill competence on live patients. Category two is designed to rotate students through higher acuity areas and rotations that allow students to integrate clinical skills from category one into more complex patient interactions and assessments. Category one is completed in the fall and category two is completed in the spring.

Field externship is divided into four phases: phase one - orientation, phase two - medical assessment and systematic approach, phase three - medical control and charting and phase four - team leadership and becoming a second provider. During the field externship, students are on campus one day per week and attending field rotations three days per week. This is offered through the entire summer session. The days on campus are spent addressing trends in learning identified from the evaluation forms and also review of the patient care reports. Current trends in the industry are also taught to prepare well rounded providers with depth of industry knowledge.

The medical director is responsible to review the medical accuracy of the information provided in the curriculum and the assessment tools. Instructionally, our medical director chooses lecture material at least twice a month as well as being present at high stakes assessments like admission screenings, final exams, terminal competency and RSI competency assessments. In addition to our medical director, specialty physicians from the clinical affiliates help to instruct on topics related to their specialty at least once a month.

Scheduling

Our clinical/field affiliates offer a varied geographic setting. Students are exposed to suburban, urban and rural settings. This variation offers different leadership opportunities and learning situations. The final course, PAR207 Paramedic Field Externship II, has learning objectives focused on achieving team leads and terminal competency assessment.

Assessment

The program is currently using both a web based tracking system by Typhon Group ® and paper forms to validate the information that is submitted electronically. The tracking system adheres to all HIPAA regulations while tracking student lab/clinical/field experiences and evaluation. The system creates a clinical portfolio.

Student Typhon® Calendar

All clinical and class lab opportunities are input into each student's individual Typhon® calendar. Each student can view but not edit their own schedule when they log in to the data entry side. Each student's calendar is viewed daily to determine which clinical and/or lab opportunities are pending program verification and validation

Student Typhon® Time Logs

Each student is required to enter a time log in Typhon® within 24 hours from the conclusion of each clinical and class lab opportunity. Time logs are viewed daily to verify students attendance for each clinical and class lab opportunity.

Student Typhon® Case Logs List

Each student is required to enter a case log within 24 hours from the conclusion of each clinical and class lab opportunity. They are also required to submit the original Clinical Internship Activity Log for each clinical opportunity prior to the beginning of the next class day which is stamped and initialed when received evaluated for completeness. Each original Clinical Internship Activity Log is compared with student Typhon® Case Logs for consistency

Student Case Logs List

Case logs are evaluated and compared to the Clinical Internship Activity Log for accuracy and completeness. If no discrepancies are noted between the Clinical Internship Activity Log and the Student Typhon® Case Logs, the original is secured in student's file in the appropriate opportunity folder.

Verification & Validation of Case Log Skills

Case logs are evaluated and compared to the Clinical Internship Activity Log for accuracy and completeness. If no discrepancies are noted between Clinical Internship Activity Log and Student Typhon® Case Logs, the case log status is changed from "pending" to "approve". If discrepancies are noted between Clinical Internship Activity Log and Student Typhon® Case Logs, the case log status is changed from "pending" to "not approved" and notes explaining the reason(s) are emailed to the student.

FOCUS ON SUPPORT

Technology

The simulation area of the program requires software updates and requires support that extends beyond the services of the IT department. Current adjunct faculty members assist with facilitating regular maintenance and updates to the simulation equipment, software and connections.

An area of improvement for the department would be access to a high volume scanner/color printer/photo copier in the paramedic space in Lyndhurst. The program utilizes the scanner email function daily and often has technology issues due to high volume.

The second technological area that could be improved upon is a computer enhanced Scantron® machine. The students are assessed cognitively a minimum of 20 times per semester and validation of questions and answers would improve the quality of these evaluations.

Facilities and Equipment

Since the area is less than two years old, the space serves as example for state of the art instruction. The space was designed to offer simulation in the patient care areas most accessible to the EMS learner.

There is a lifting and moving station which is an ambulance inside the building allowing for realistic maneuvering of patients in a close proximity environment. There is an apartment with a kitchenette and bathroom. There is a 2 bed emergency department area that can also be utilized as a long term care facility. Outside there is an ambulance which will be parked adjacent to the space and connected to the data and electric form the building making digital recording possible during movement to the ambulance.

In the next five years as the program enrollment expands the storage of student files will need to be addressed. The Department of Health and Human Services requires that the student record be kept for 3 years after graduation.

Learning Resources

The textbooks have been adequate in preparing students for the learning process. Prior to attending lecture, students complete web based end of chapter reading assessments.

During our first year with students, Helen-Ann Epstein served as lecturer in the library. She immersed her expertise by attending class monthly to help students expand their literacy competence and helped facilitate better evidence based research techniques. Being the only health professions program in the Meadowlands, her efforts served as a great reinforcement to otherwise novice research learners. Helen-Ann resigned and the Health Profession Division library liaison has attempted to meet the needs of the students. Unfortunately, since we are based at a branch campus, we have not interacted as much with our current liaison.

Moving forward, it would be helpful to reinstate, a clinical medical librarian who can help faculty and students expand their literacy and research techniques. Further opportunities exist with having this position help publish the many teaching excellence examples that are offered in the department.

Marketing and Public Relations

Since the program was developed with funding from HPOG, marketing materials were developed and are available at our clinical affiliates. The website is up to date but could use some enhancements as we move forward.

Uploading a video of the simulation space would be an enhancement that would benefit prospective students. Adding faculty bios and credentials would also enhance the amount of information available on the website. When the survey data from graduates and employers is tallied it is the intent to place it on the program's webpage.

Support Services

There is often a misunderstanding between EMT and paramedic. Licensed healthcare providers even get these differences confused. For this reason, it has been requested that all inquiries for the program are sent directly to the program director. The director has attended counseling meetings to provide an overview of the program and discuss unique admissions and professional traits required for success in the industry.

Resources, **Budget**

The program was established with funds from HPOG. The capital commitment for the simulation equipment and faculty development has been supported by Carl P. Perkins. The college has supported the program with ample supplies and staff for continuing the program after the grant funding ceased. One are of concern in staffing is obtaining a second tenure track faculty member for the program.

Another upcoming fiscal concern is the maintenance of the manikins and continued faculty attendance at national conferences. Manikin maintenance is not supported by Carl P. Perkins and can cost between 7,500 and 10,000 dollars per manikin. This maintenance extends the depreciable value of the equipment and is imperative for using the equipment long term. Attendance at specialty conferences is important for professional development. The EMS industry is in the midst of radical transformation and offering a state of the art program will require attendance at these conferences to ensure that the leadership of pour program is well educated in these fundamental changes.

FOCUS ON COMMUNITY

Community Groups

The college employs recruiters who attend 35 high schools annually to recruit students to BCC. Prospective students can learn about health professions by attending one of the monthly division information sessions. Prospective students learn about the application process, admission selection criteria and have time to meet with individual program leadership.

The Paramedic Science students participate in community service learning each semester. The project goal is to raise public awareness about EMS services. Projects can be completed individually or in a group. To date, the students have opted to complete a group project pooling all of their resources to offer a health fair at each campus to promote awareness and provide health screenings to students, faculty and staff. The college hosts a health week annually and the students have piggybacked on this initiative to increase the interaction at their session.

The program has established itself as a leader in the EMS community. The partnerships built through establishing the program has proven to be positive for establishing unique learning experiences for the students. The EMS community has embraced the program and revers it as a resource.

Community Issues Related to Program

The Paramedic Science Program (AAS.HP.PAR) at BCC has CIP (Classification of Institutional Programs) Code of 51.0904 (Emergency Medical Technician/Paramedic). Using this CIP code and labor market sites such as Economic Modeling Specialists International (EMSI) and America's Career Infonet, data was gathered relating to the program's target occupation.

Completion vs. Openings, 2014

In the New York- New Jersey metropolitan area, in 2014 there were more regional openings than program completions for the EMT/Paramedic program.

Regional Institutions Offer the Program	12
Regional Program Completeness	134
Annual Regional Openings for Target Occupations	1,049

Target Occupation Growth, 2015-2016

A trend analysis from 2015-2016 shows that the number of jobs in the target occupation is increasing in the MSA.

Target Occupation	2015 jobs	2025 jobs	Change	% change
Emergency Medical Technician/Paramedic	15183	17448	2265	15%

The paramedic occupational growth is also expected to expand as more employment opportunities become available through new job creation secondary to healthcare trends focused on keeping patients outside of the hospital.

External Requirements or Considerations Accreditation

BCC is accredited by the Middle States Commission on Higher Education. The Commission on Higher Education is an institutional accrediting agency recognized by the US Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.

The Paramedic Science Department holds two additional accreditations; one from the New Jersey Department of Health and Human Services – Office of Emergency Medical Services (OEMS) and a second from the Commission on Accreditation of EMS Programs (CoAEMSP). CoAEMSP is overseen by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

New Jersey State Accreditation:

New Jersey OEMS PO BOX 360 Trenton, NJ 08625 609-633-7777 http://www.nj.gov/health/ems/

National Accreditation:

CoAEMSP 8301 Lakeview Parkway Suite 111-312 Rowlett, TX 75088 214-703-8445 FAX 214-703-8992 http://coaemsp.org/index.htm

The New Jersey OEMS staff conducted an unannounced site audit on January 11, 2016. The audit lasted six hours and three staff members evaluated and validated the information submitted to gain approval to establish the program. The feedback on the day of the visit was very positive and we were informed that we had passed our site audit. The staff from the office have encouraged other paramedic and EMT coordinators to contact BCC for guidance on how to meet the requirements of EMS program accreditation.

The Paramedic Science Program is currently under the Letter of Review (LoR) process, which is the official designation that a Paramedic program is in the "Becoming Accredited" process. While a program that qualifies for a LoR must still complete the entire process to demonstrate substantial compliance with the Commission on Accreditation of Allied Health Education Programs (CAAHEP) accreditation Standards, and is not guaranteed an award of accreditation, holding a LoR does signify that the program is making satisfactory progress in the accreditation process. As such, after January 1, 2013, the NREMT recognizes graduates of CAAHEP accredited programs as well as graduates of programs holding a CoAEMSP LoR, as eligible for the national Paramedic certification examinations.

In completing the initial accreditation process, the Paramedic Science Program has submitted its initial accreditation self-study to CoAEMSP and feedback received was very positive. A site visit

is scheduled for July 2016. During the site visit, the team will validate the information submitted through the self-study process. The team can offer suggestions for improvement. Based on the feedback provided from the self-study, it is expected that full accreditation will be award.

Advisory Boards

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The Paramedic Science Department Advisory Board is comprised of EMS department leadership from the clinical affiliate, Emergency Medicine physicians, a graduate and a current student, a public representative, law enforcement representative and government official. The board meets semiannually and meetings are well attended by members. The purpose of the meeting is to provide guidance on areas of potential improvement identified for the program. During meetings, the group brainstorms potential solutions. While the ultimate decisions rest with BCC, obtaining ideas and support from the Advisory Board has proven to be very positive to identifying solution to complex problems.

Advisory Board Members 2015-2016	ADDRESS	TEDM
Ms. Denise Arzoomanian	Clinical Educator Englewood Hospital & Medical Ctr. 122 S. Van Brunt Street Englewood, NJ 07631	1 15-16
Mr. Mark Bober	JFK Health System 65 James Street Edison, NJ 08820	1 15-16
Mr. Lafe Bush	The Valley Hospital 223 North Van Dien Avenue Ridgewood, NJ 07450	1 15-16
Dr. Terry Clancy	Department of Health OEMS P.O. Box 360 Trenton, NJ 08625	1 15-16
Dr. Mark Curato	65 South Union Ave Cranford, NJ 07016	3 15-18
Mr. Raymond Dwyer, III	19 Midland Avenue Budd Lake, NJ 07828	2 15-17
Mr. Alan Henschke	Robert Woods Johnson Unv. Hosp. 126 Paterson Str. New Brunswick, NJ 08903	1 15-16
Mr. Glenn MacDonald	39-42 Sycamore Drive Fair Lawn, NJ 07410	1 15-16
Ms. Jacki McNally	29 Gordon Circle Parsippany, NJ 07054	2 15-17

Dr. Herman Morchel	426 Prospect Street Nutley, NJ 07110	2 15-17
Mr. John Nickel	30 Sherman Avenue Pompton Plains, NJ 07444	1 15-16
Brian Pullman	522 Godwin Avenue Midland Park, NJ 07432	2 15-17
Mr. Ron Spethmann	Hackensack University Hospital 30 Prospect Avenue Hackensack, NJ 07601	1 15-16
Mr. Matthew Streger	126 Paterson Street New Brunswick, NJ 08901	2 15-17
Mr. Michael Tarantino	Bergen County EMS Training East 281 Pascack Road Paramus, NJ 07652	1 15-16
Mr. Mark Veenema	Holy Name EMS 8 Chadwick Road Teaneck, NJ 07666	1 15-16
Dr. Brian Walsh	21 Kennaday Road Mendham, NJ 07945	2 15-17
Mr. Harvey Weber	656 Oak Street Ridgefield, NJ 07657	2 15-17
Dr. Susan Barnard	Dean of Health Professions Bergen Community College	
Mrs. Linda Emr	Dean, Meadowlands Campus Bergen Community College	
Ms. Jennifer McCarthy	Paramedic Science Department Bergen Community College	
Dr. Bill Mullaney	Vice President of Academic Affairs Bergen Community College	
Ms. Joanne Piccininni Final Draft: October 12, 2015	Paramedic Science Department Bergen Community College	

SUMMARY

Program Achievements:

The major accomplishments of the Paramedic Science Department are as follows:

- Hired a FT Tenure Track faculty member and Program Director, Jennifer McCarthy MAS, NRP, MICP
- Hired a Lecturer and Clinical Coordinator, Joanne Piccininni MBA, NRP, MICP
- Established a sound curricula to prepare entry level providers to excel in an uncontrolled patient care environment
- Hired and mentored a core group of faculty who instruct with the mission and vision of the program in mind and have helped the program achieve the successes that it has.
- Established the program as an important part of the Lyndhurst BCC community.
- Created teaching materials that have led to our successes, Power Points, specialized booklets and standards about practice.
- Annual update of policy and procedure manual
- Annual update of medication formulary booklet
- Annual update of Patient Clinical Skills Manual
- Annual review/revision of curriculum and faculty professional growth standards
- Semester faculty development sessions related to the expansion of using simulation as a teaching modality, best practice standards and enhancing debriefing techniques
- Use of alternative teaching modalities in the classroom

Mission/Goals/Objectives

- The Paramedic Science Department is helping BCC meet its mission, vision and values.
- We prepare entry level providers for immediate employment.
- Our clinical affiliates look to our program graduates to help fill employment openings.
- Students are taught the importance of continued education and encouraged to join state and national professional organizations.

• Our students are committed to promoting BCC as a leader in the industry.

Strengths

- Outstanding leadership from EMS industry leaders that serve on many state and national advisory committees and are active patient care providers in New Jersey.
- Diverse faculty who are committed to lifelong learning, active healthcare providers, and who have achieved additional instructor and national registry certifications.
- State of the art equipment and space design that allows for realistic instruction including an ambulance and simulated emergency department.
- Possesses NJDOH OEMS waiver from hospital sponsorship allowing students to complete clinical rotations at the best matched areas for the identified learning objectives.
- Full time, four day per week schedule allowing immersion in the profession resulting in deeper discussions and connection between classroom and clinical/real life synthesis.
- Workforce development model allowing students to use already earned credits towards an AAS in Paramedic Science which maximizes student success and is also fiscally sound.
- All graduates are awarded an AAS in Paramedic Science.

- Well established clinical affiliates that offer diverse, high census/acuity learning environments.
- Support from EMS departments within the clinical affiliate sites that offers unique support for our students.
- Tutoring services for paramedic core courses from faculty and graduates.
- Continuous quality improvement initiatives for curriculum enhancements and student learning successes.
- Ample formative assessment opportunities and support services to promote student performance improvement throughout program.
- Supportive and active advisory board members who are committed to the program.
- Funding and support from BCC leadership team to allow for expansion of staffing and accreditation efforts.

Challenges

- Having only one tenure track faculty member in the department places a burden and increased workload since effective leadership requires managing unforeseen problems that can't be assigned at the beginning of the semester.
- Since the students are assigned to preceptors from each clinical rotation not having a point of contact at each clinical affiliate site impacts the continuity of learning. Assigning an adjunct faculty member at each clinical affiliate, would help facilitate better assessment techniques and scheduling continuity.

Celebration and Recognition

- NJDOH-OEMS one day site audit where program leadership received accolades regarding policy and practice for the program activities.
- Professor Jennifer McCarthy was awarded the *Top People to Watch in Healthcare 2015* and a Lifetime Achievement Award in 2016 and selected to serve as an international accreditation committee member and accreditation program reviewer for the Society of Simulation in Healthcare.
- Joanne Piccininni was selected as the National Association of EMT (NAEMT) Education Coordinator for New Jersey.
- Multiple adjunct faculty members awarded patient care practice awards.

Recommendations for Change

- Ongoing process improvement of curriculum and instructional practice.
- Continued growth in simulation teaching modality and assessment.
- Increase the tenure track faculty positions available for the department.
- Recruit an adjunct faculty member from each clinical site to act as a liaison for the students and improving student successes.
- Secure funding aimed at preventative maintenance for simulation manikins.

ACTION PLAN

- 1) Goal: Network with EMS departments to build a career ladder for EMT to Paramedic
 - a) Objective: Increase program enrollment
 - i) Timeframe: 2016 2018
 - ii) Responsible Party(ies): Jennifer McCarthy
 - iii) Resource Implications: Increased enrollment and revenue
 - b) Objective: Increase survey response rate
 - i) Timeframe: ongoing
 - ii) Responsible Party(ies): Jennifer McCarthy
 - iii) Resource Implications: None
- 2) Goal: Continue Faculty development efforts for adjuncts and preceptors of the program
 - a) Objective: Improve the connection from the campus to the clinical and field learning environment
 - i) Timeframe: current 2019
 - ii) Responsible Party(ies): Jennifer McCarthy/Joanne Piccininni
 - iii) Resource Implications: Improved evaluation assessment data