

Eastern West Virginia Community and Technical College

Five-Year Program Review Nursing – Associate of Applied Science

April 4, 2018



Respectfully Submitted by: Eleanor Berg, Program Director

Assessment Committee Approved: 4-5-18

LOT Approved: 4-16-18

Cabinet Approved:

Board Approved:

Sent to WVCTCS:

Program Review March 2018

Associate in Applied Science: Nursing CIP Code: 23513801

Background:

The nursing program was started in 2010 and the original curriculum was taken from Southern West Virginia Community and Technical College. A new curriculum developed with the West Virginia Consortium of Associate Degree Nursing Programs (WVCADN) was implemented in the fall of 2014 after being approved by the WV State Board of Nursing (WVBON).

At the beginning, the program was housed in Michael Medical but in fall 2015 the program was moved into the new wing of the main campus. The nursing area includes a classroom which can support up to 24 students and has a white board, projector and computers for each student. The laboratory has internet access for students, three patient simulation areas, a pediatric simulation area, sitting areas for students and extensive equipment. Additionally, there are three offices for faculty, the secretary and the director. The area was approved for use by the WVBON prior to use.

The new curriculum is concept based and spans four semesters. At the completion, the graduate is eligible to take the NCLEX and if passes, is licensed as a professional Registered Nurse. The program is limited to one site in Moorefield, WV and consists of a cohort of 20 students.

The members of the cohort are admitted every other year in the fall semester of even years and graduate in the spring of the next even year. For example: twenty students were admitted in August 2016 and will graduate in May 2018, and a new cohort will begin in the fall of 2018. Therefore, only one cohort is in progress at any given time. No LPN to RN Bridge is available.

The mission of the program is to prepare students for professional nursing practice while providing a knowledge base for career mobility and further academic study. The program is committed to providing accessible, high-quality nursing education to meet the diverse and changing health-care needs of the community and beyond.

The program Philosophy states the program is committed to a quality educational environment and incorporates the seven core values of the National League for Nursing

Competencies Framework which includes caring, diversity, ethics, excellence, holism, integrity, and patient centeredness (NLN, 2010). Faculty believes that “all nurses should display integrity, respect diversity in all forms, uphold given legal and ethical responsibilities and strive for excellence while promoting caring, holistic, patient centered care” (NLN, 2010).

The program supports education as a lifelong process incorporating a spirit of inquiry, supported by evidence based research. Faculty believes that students need to develop nursing judgment in their practice, develop a professional identity as a nurse, and learn to support patients and families in development of their ongoing growth as human beings. Lifelong learning consists of acquiring knowledge, demonstrating proficient skills, and developing ethical attitudes and values.

Program Student Learning Outcomes (SLO): The program student learning outcomes include human flourishing, nursing judgment, spirit of inquiry and professional identity. These are described as:

Human Flourishing – Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings.

1. Collaborate with the patient or designee to plan and provide nursing care that respects the patient’s individual values and needs.

Nursing Judgment – Make judgments in practice, substantiated with evidence, that integrate nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context.

2. Generate safe and effective patient centered care using the nursing process.
3. Incorporate effective communication strategies to reduce risk and injuries in the healthcare environment.

Professional Identity – Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context.

4. Create caring relationships with patients and support systems consistent with the ANA Standards of Nursing Practice and the Code of Ethics.
5. Evaluate the utilization of healthcare system resources to efficiently and effectively manage care.

Spirit of Inquiry – Examine the evidence that underlies clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.

6. Integrate current best practices to plan and implement safe and effective patient care.

Curriculum

First Year – Fall Semester				First Year – Spring Semester			
Dept.		Course Title	Sem. Hrs.	Dept.		Course Title	Sem. Hrs.
BIO	124	<u>Human Anatomy and Physiology I</u>	3	BIO	125	<u>Human Anatomy and Physiology II</u>	3
BIO	124L	<u>Human Anatomy and Physiology I LAB</u>	1	BIO	125L	<u>Human Anatomy and Physiology II LAB</u>	1
NU	132	<u>Drug and Dosage Calculations I</u>	1	NU	142	<u>Drug and Dosage Calculations II</u>	1
NU	133	<u>Health Assessment and Diagnostics I</u>	2	NU	143	<u>Health Assessment and Diagnostics II</u>	1
NU	134	<u>Introduction to Nursing Concepts</u>	8	NU	144	<u>Nursing Concepts of Health and Illness I</u>	9
PSY	200	<u>General Psychology</u>	3				
<i>Total Semester Hours</i>			18	<i>Total Semester Hours</i>			15
Second Year – Fall Semester				Second Year – Spring Semester			
Dept.		Course Title	Sem. Hrs.	Dept.		Course Title	Sem. Hrs.
ENL	101	<u>English Composition I</u>	3	NU	244	<u>Synthesis of Nursing Concepts</u>	9
NU	234	<u>Nursing Concepts of Health & Illness II</u>	9	NU	245	<u>Professional Nursing & Health Systems Concepts</u>	3
				Elective		General Education Elective	3
<i>Total Semester Hours</i>			12	<i>Total Semester Hours</i>			15

Nursing 132: Drug and Dose Calculations I

This course is designed to enhance the nursing student’s ability to read, interpret, and solve dosage calculation problems. Critical thinking skills are applied to medication situations to emphasize the importance of accuracy and the avoidance of medication errors.

Nursing 133: Health Assessment and Diagnostics I

This course is designed to introduce the nursing student to the knowledge and skills required to perform a health assessment across the lifespan and to document appropriate findings. The nursing student will be introduced to normal lab values and basic diagnostic procedures.

Course Credit Hours: Two (2) credit hours. One (1) credit hour classroom; one (1) credit hour laboratory (3 contact hours).

Nursing 134: Introduction to Nursing Concepts

This foundational course is designed to introduce concepts to the beginning nursing student that will focus on maintaining health and promoting wellness throughout the lifespan. Concepts and core values basic to the foundation of nursing practice are presented. Classroom and laboratory experiences provide opportunity for understanding of the nursing process, clinical judgment and decision making.

Course Credit Hours: Eight (8) credit hours. Five (5) credit hours classroom; three (3) credit hours lab / clinical (9 contact hours).

Nursing 142: Drug and Dose Calculations II

This course expands the nursing student's ability to read, interpret, and solve increasingly complex dosage calculation problems. Critical thinking skills are applied to age and acuity specific variations in select populations.

Nursing 143: Health Assessment and Diagnostics II

This course is designed to focus on abnormal assessment and diagnostic findings. Modifications of assessment for select populations will be addressed.

Nursing 144: Nursing Concepts of Health and Illness I

This course builds upon foundational concepts across the lifespan while introducing the concepts of the wellness-illness continuum and the individual and family response. Classroom and laboratory experiences provide opportunity for application of the nursing process and development of clinical judgment and decision making.

Course Credit Hours: Nine (9) credit hours; five (5) contact hours classroom; four (4) credit hours lab /clinical (12 contact hours).

Nursing 234: Nursing Concepts of Health and Illness II

This course expands the concepts of the wellness-illness continuum, with emphasis on the expanding family and tertiary care within the community. Classroom and laboratory experiences provide opportunity for analysis within the nursing process and application of clinical judgment and decision making.

Course Credit Hours: Nine (9) credit hours. Five (5) credit hours classroom; four(4) credit hours lab/clinical (12 contact hours).

Nursing 244: Synthesis of Nursing Concepts

This course focuses on the integration of interrelated concepts across the wellness-illness continuum. Classroom and laboratory experiences provide opportunity for synthesis of the nursing process and integration of clinical judgment and decision making.

Course Credit Hours: Nine (9) credit hours. Four (4) credit hours classroom; five (5) credit hours lab/clinical (15 contact hours).

Nursing 245: Professional Nursing and Health Systems Concepts

This capstone course will focus on current issues in health care and the nursing profession and is designed to facilitate the transition from student to professional registered nurse.

Topics of discussion will include national health policy and politics, ethical and bioethical issues, career development, application for state licensure and preparation for the NCLEX-RN examination.

Course Credit Hours: Three (3) credit hours. Two (2) credit hours classroom; one (1) credit hour laboratory (3 contact hours).

Synopses of Significant Findings, including Findings of External Reviewers

External Reviewers: The program was granted full approval by the West Virginia Board of Registered Professional Nurses (WVBON) in March of 2013 and the full approval has been maintained each year. The program passed site visits by the WVBON in 2016 and in 2010. The program was also accredited by Accreditation Commission for Education in Nursing (ACEN) in 2015 after a site visit in the spring. The ACEN Board of Commissioners granted accreditation for five years with no restrictions.

The student learning outcomes are included in the syllabus, the Clinical Performance Evaluation Tool (CPET), the HESI assessment exams, the graduate surveys and the employer surveys. In addition, the exam questions are matched to the SLO and the course objectives to ensure each was measured. These were updated when the curriculum change occurred to match the SLOs. Each of the courses has been taught at least once and the course assessments have been completed within one month of the completion of each course.

Technological Skills

Throughout the program, the students must demonstrate nursing skills which include but are not limited to obtaining vital signs, urinary catheterizations, donning sterile gloves, setting up a sterile field, injections, administering medications, starting and maintaining IVs, performing complete physicals and documentation. These are kept on a skills checkoff sheet and kept in their files. Some of the exams are computer based and the students must document on an Electronic Medical Record.

Instructional Methods

The program utilizes multiple instructional methods. Along with traditional lecture, the students prepare presentations and group projects. They participate in simulation in the laboratory and demonstrate proficiency prior to going to the clinical sites and working with patients. Practice questions are provided on the computers which include NCLEX 4000 and Adaptive Quizzing. They document in simulated charting and on the Electronic Medical Record at the hospital. The students do a community survey to determine the health care needs and available resources.

Diversity

Reflecting West Virginia's population, a majority of the students are Caucasian. The program has graduated one Hispanic and one African-American student. In each course, diversity and culture in health care are taught. These are included on multiple

exams and in the second semester, the student completes a handout utilizing the student learning outcomes for multiple developmental ages and multiple cultures.

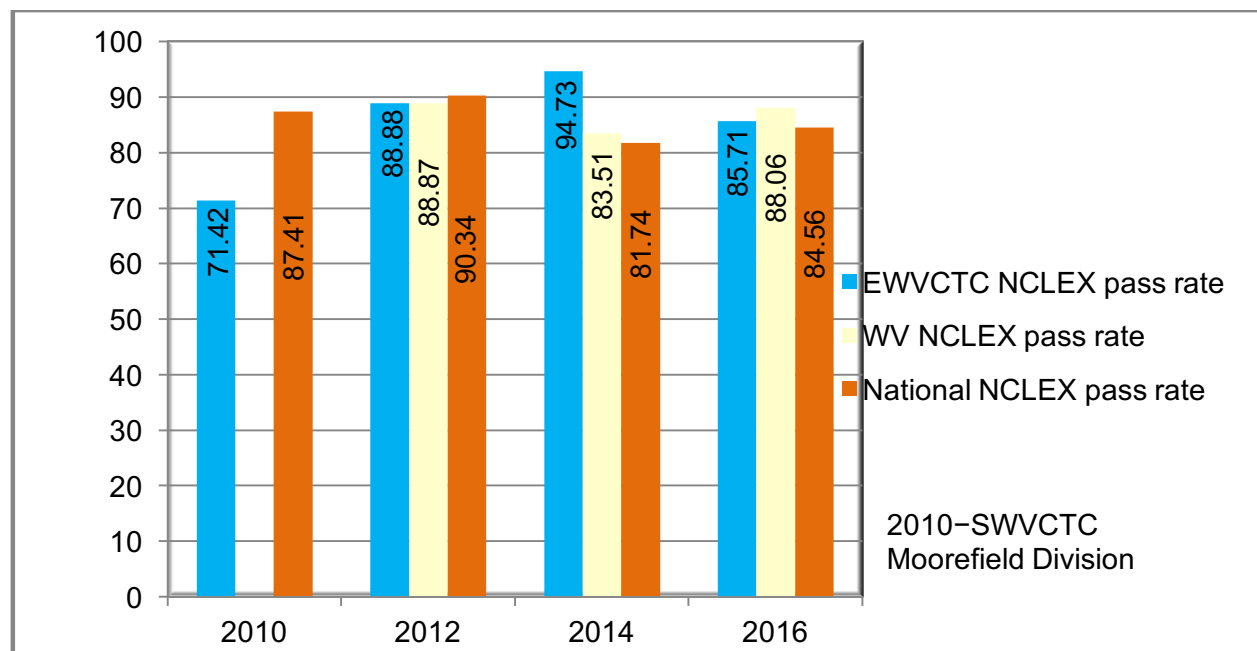
The program's gender diversity is evidenced by 12% male graduates.

Unique Components to Meet the Needs of the Eastern District

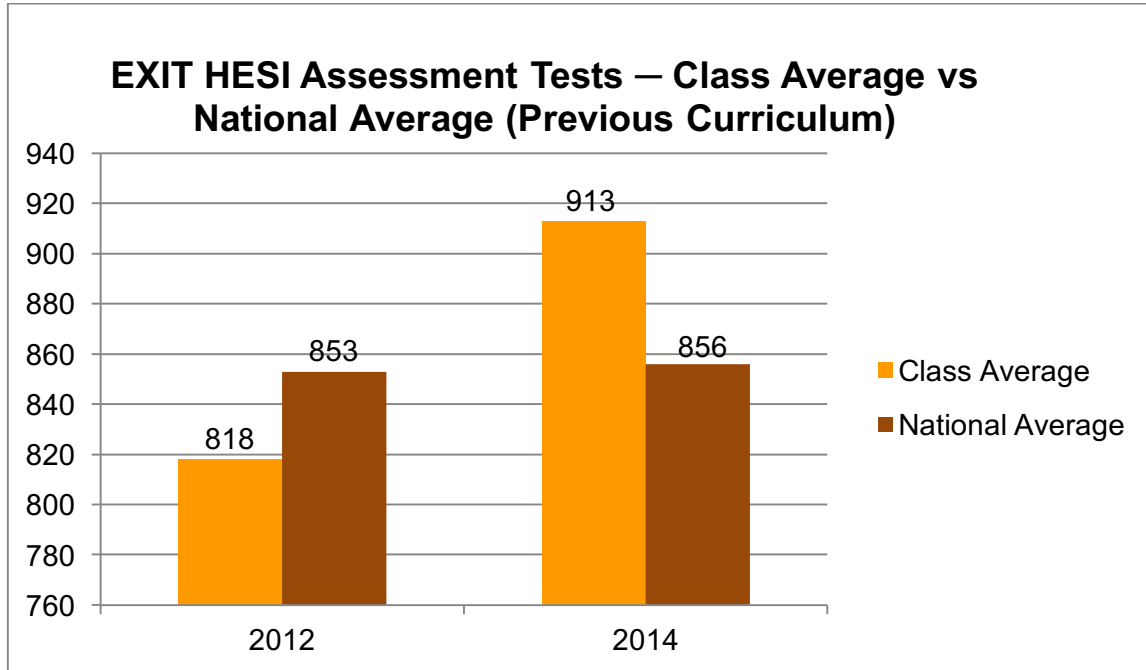
A majority of the students are first generation college students and 90-100% of them receive financial aid. Several of the students are single parents. The program is very small and the faculty is able to provide individualized attention. All of the nursing faculty are first generation college graduates and understand the unique needs of the students. Costing approximately \$11,000, the program is very affordable. A majority of the clinical sites are local so the students are very comfortable with the staff and administration. The community is very supportive of the program and the local hospital hires the students as Personal Care Assistants and work around the classroom schedule. The hospital also provides scholarships and offers employment once they have graduated.

Trending of Outcomes from 2010 until present:

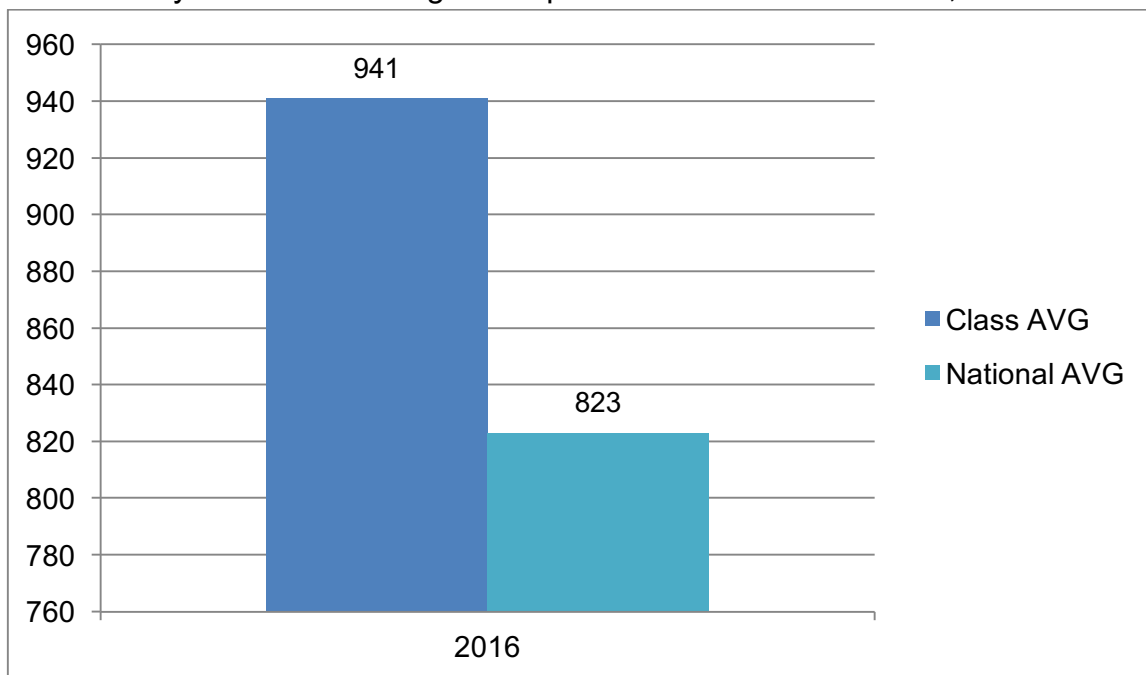
The graduates must pass the NCLEX in order to become licensed to practice as a registered professional nurse. The first cohort to graduate from EWVCTC was in 2012 and each pass rate has been over 80% which is recommended by ACEN and the WV BON. As noted by the graph, EWVCTC has exceeded the recommendation. The only one to drop below 80% was the Moorefield Division when part of Southern West Virginia Community and Technical College.



The EXIT HESI is the Assessment exam given at the end of the program and is a strong comparison on how the students compare with others nationally. In 2012, the class average was below the national average but in 2014 and 2016 the class average was higher than the national average. The first graph is the old curriculum.



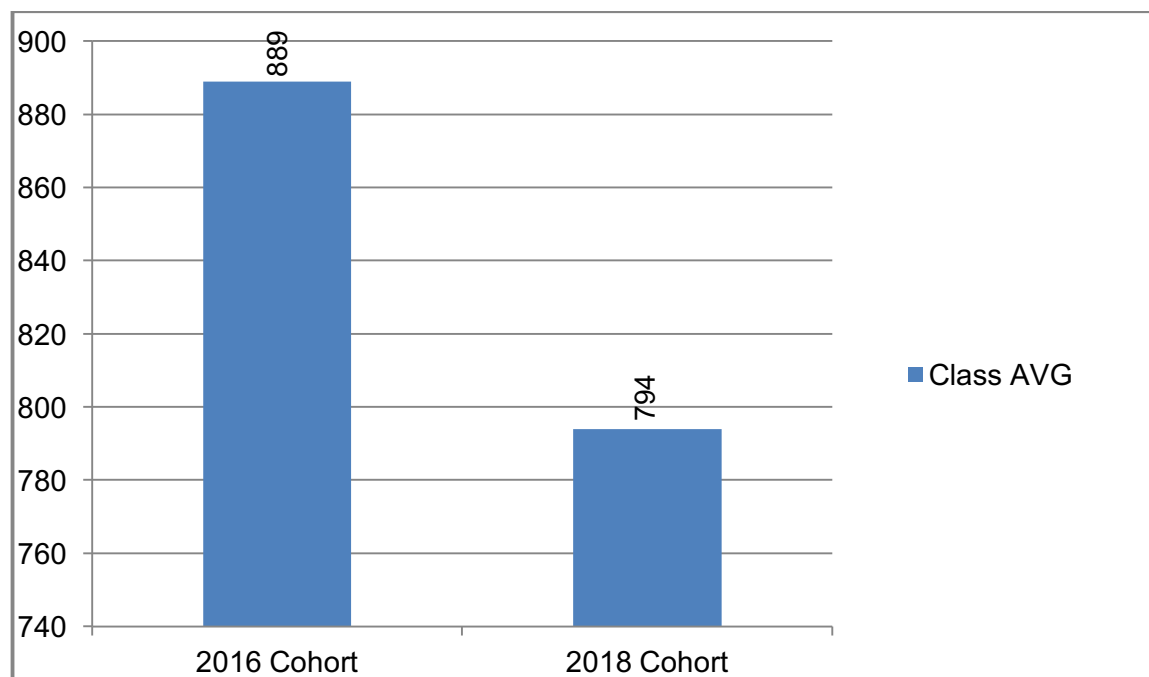
NU 244 – Synthesis of Nursing Concepts 2016 **EXIT HESI** Results; Current curriculum.



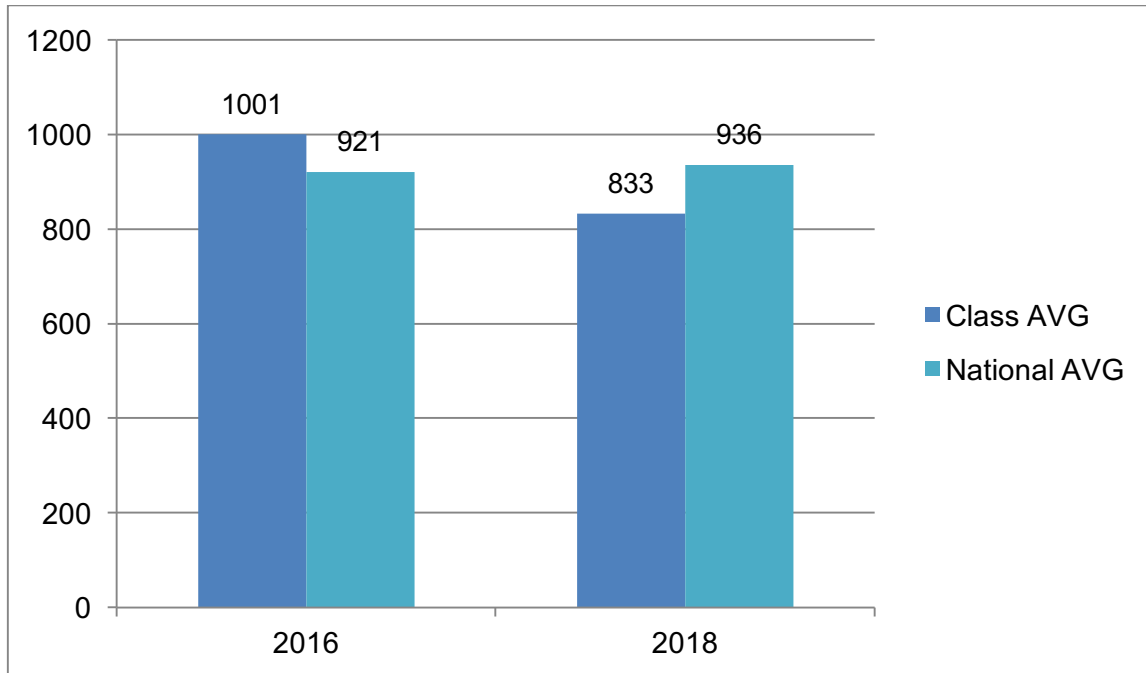
With the new curriculum which was implemented in 2014, there has been a HESI assessment exam in each concept course along with Health Assessment, Drug Calculations and the professional course which is the capstone course. The concept HESI exams do not have a national average. We were able to trend scores throughout the years which led to the decision to mandate minimum scores. In trending scores, it was apparent the HESI exams were very strong in predicting which students could or could not complete the program and pass the NCLEX exam to become licensed. Some students were weak in the first semester but gained momentum and were successful in completing the program and passing the NCLEX. Others performed well the first semester but gradually lost ground and eventually failed out or failed the NCLEX. The rest of the colleges in WVCADN had already set benchmarks of 850 in the courses with the exception of the last semester which was 900. EWVCTC did not do so in the first cohort with the new curriculum because the exams had not been used before and more data needed collected. After reviewing the individual scores, it was apparent some just needed more time to adapt. The decision was made to make 750 the mandated score the first semester, 800 the mandated score the second semester, 850 the mandated score the third semester and 900 the mandated score the fourth semester. See appendix A.

The following is comparison of the average scores on the HESI exams between the first and current cohort of the new curriculum.

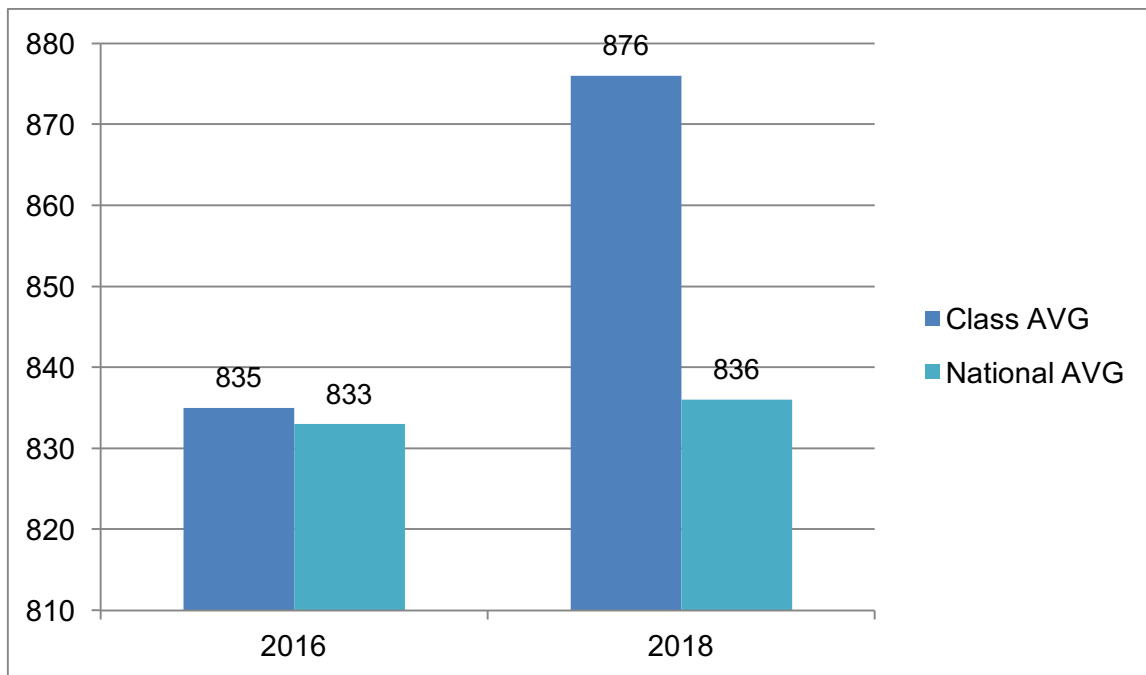
NU134 – Introduction to Nursing Concepts HESI Results



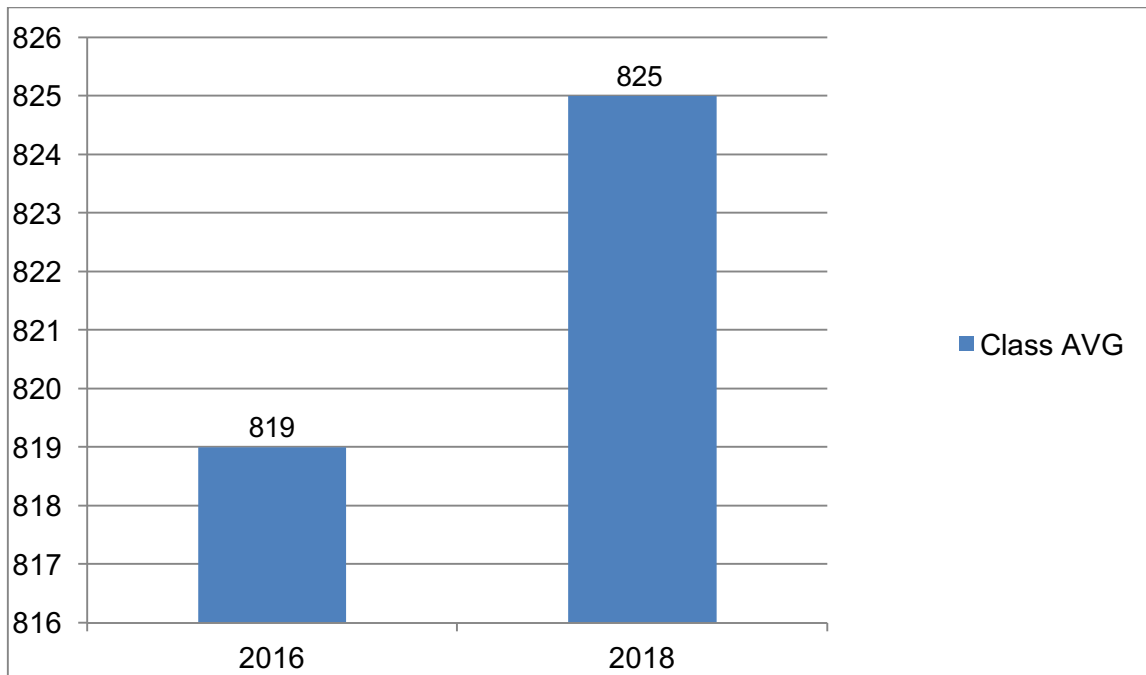
NU 142 – Drug and Dosage Calculations II HESI Results



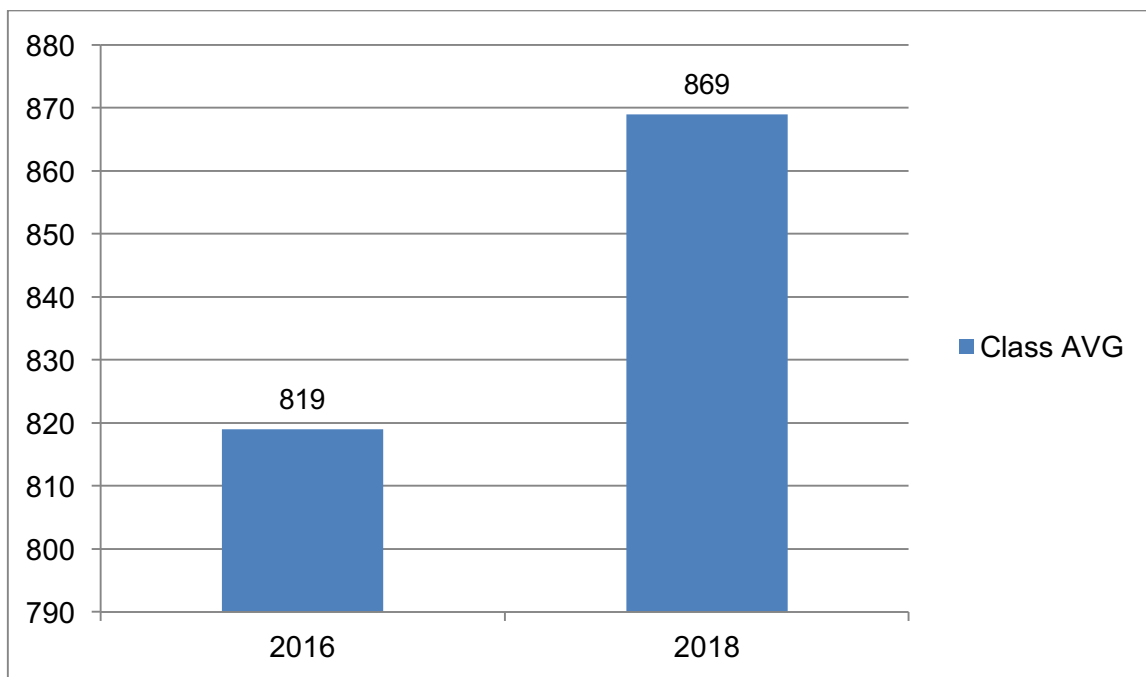
NU143 – Health Assessment and Diagnostics II HESI Results



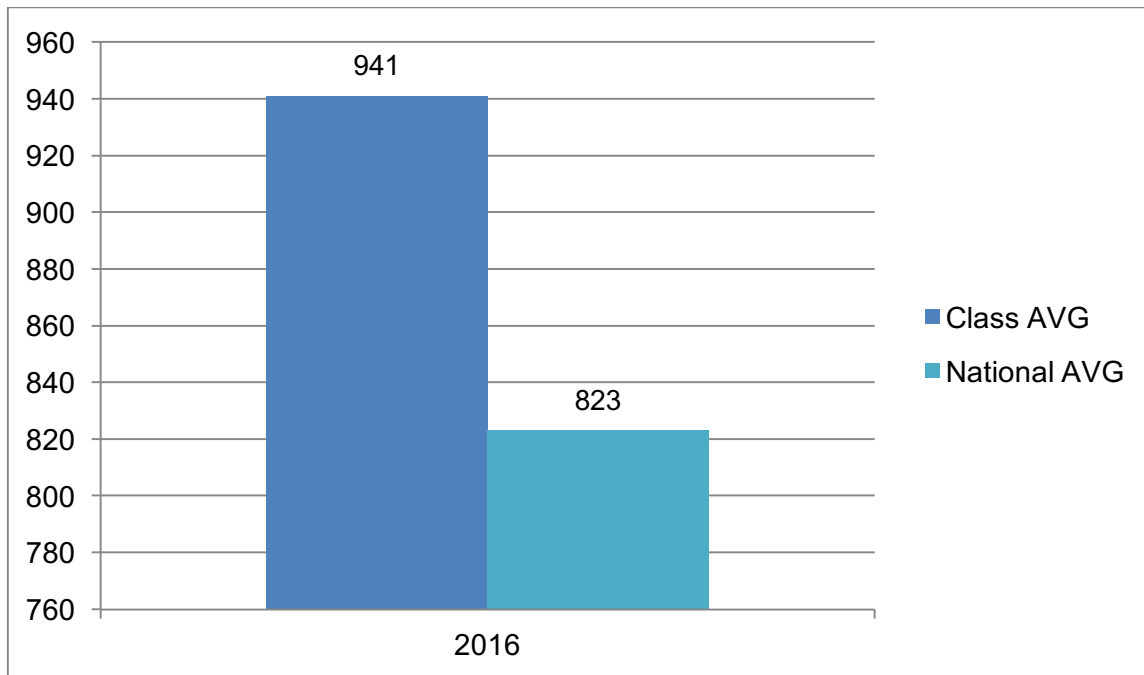
NU144 – Nursing Concepts of Health and Illness I HESI Results



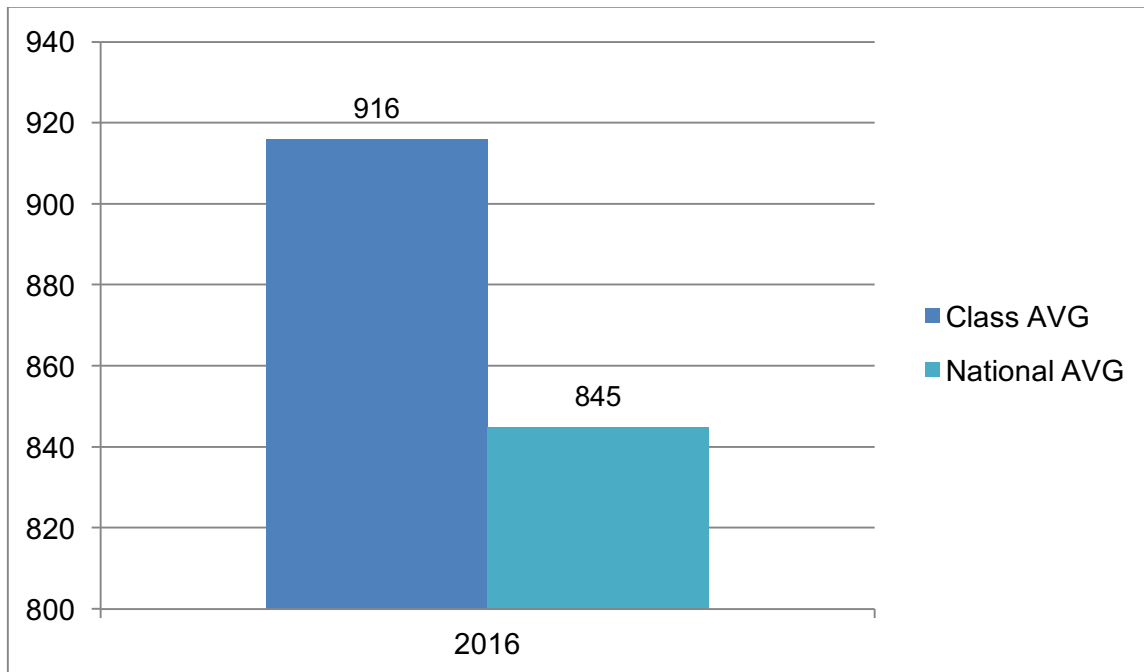
NU 234 – Nursing Concepts for Health and Illness II 2016 HESI Results



NU 244 – Synthesis of Nursing Concepts 2016 EXIT HESI Results

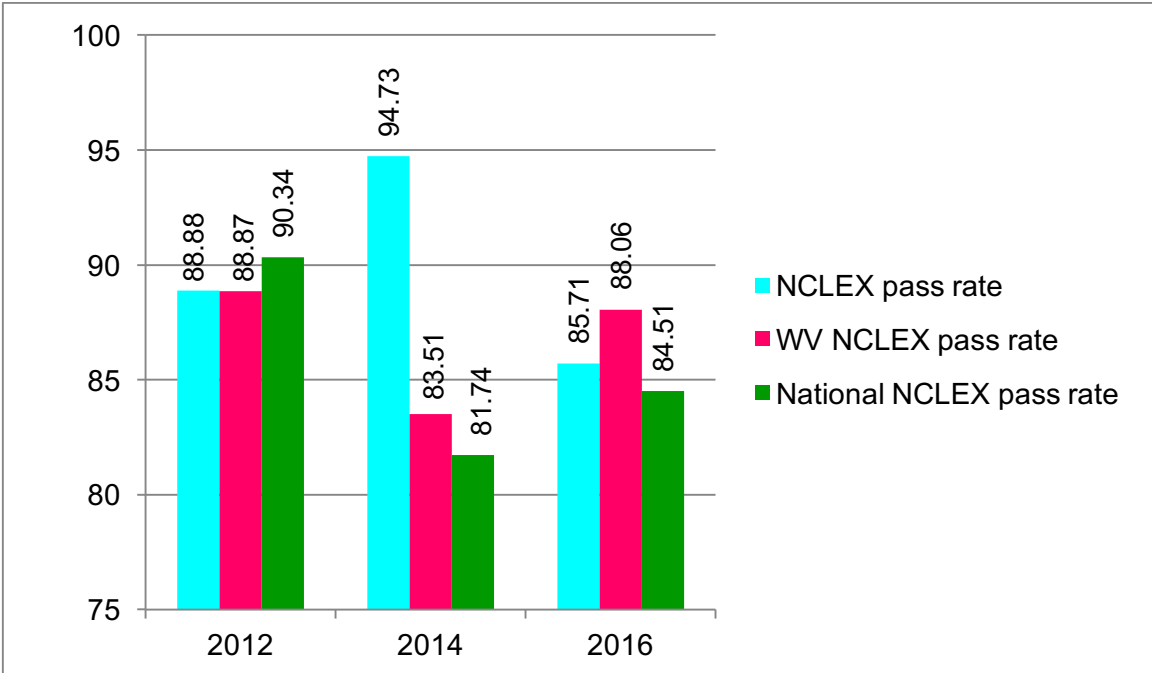


NU 245 – Professional Nursing and Health Systems 2016 Management Test



Graduates must pass the NCLEX to become licensed and to practice as Registered Nurses. One hundred percent (100%) of the graduates became licensed since the beginning of the program. The class of 2016 had the lowest NCLEX pass rate on the first attempt which was 85.71% which is above the recommended 80% by ACEN and the WV BON.

NCLEX Pass Rate

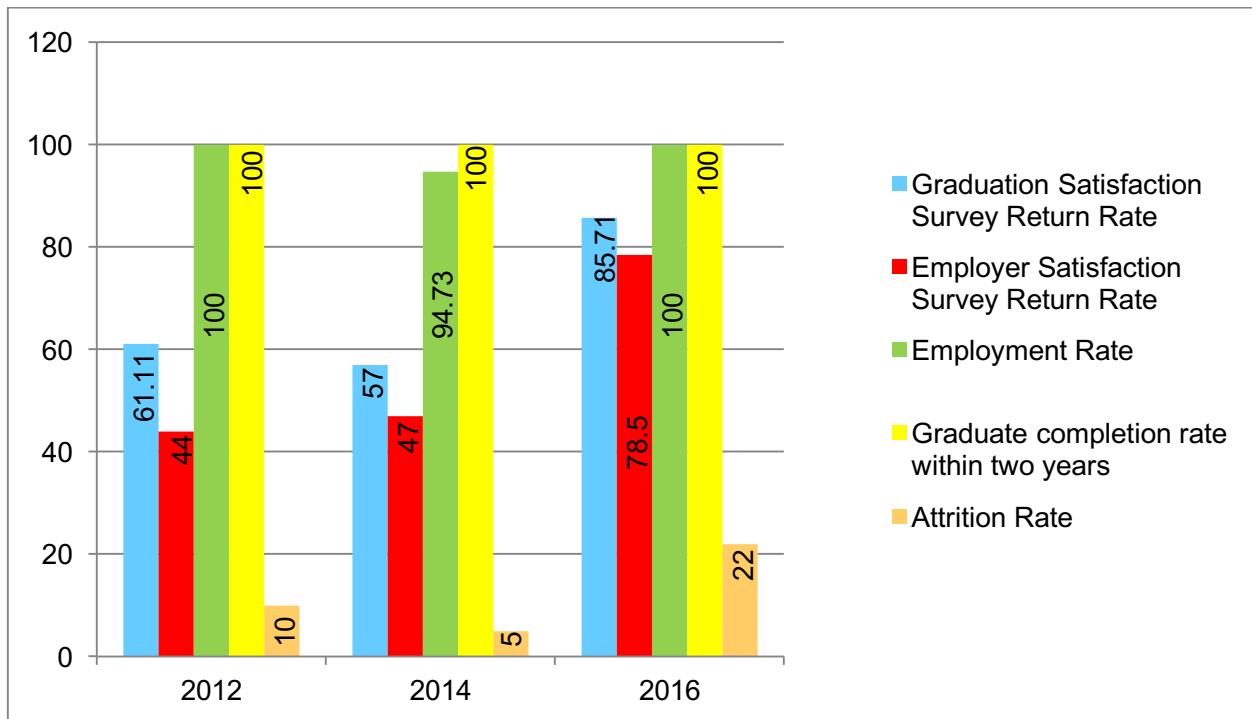


Ninety-six percent (96%) of the graduates were employed within 6 months of graduation. The remaining 4% were employed within nine months. One had failed the NCLEX more than once which delayed her employment but was hired full-time within one week of passing. The other had some difficulty with interviewing skills but was hired within eight months of graduation after job coaching by the nursing faculty.

The attrition rate is has been consistently less than the desired 25%.

Class of 2012	Class of 2014	Class of 2016	Class of 2018
10%	5%	22%	pending

A graduate survey and employer survey is sent at the completion of each cohort. These surveys include the SLO. See Appendix B for the raw data.



Plans for Program Improvement and Summary of how Results are used for Program Improvement

Program Improvements have been occurring and all of the goals have been met which includes full approval of the WVBON, accreditation by ACEN, all instructors have a MS in Nursing and 100% are Nurse Practitioners (NP). Although the faculty was inexperienced in Nursing Education when the program began, they have attended conferences and interfaced with other programs to improve the program. The Director and the lead faculty member now have eight years of experience; one of the adjuncts now has three years in teaching Psychology. The other is completing her first year and wants to stay in education.

Many of the clinical experiences were "Observation Only" which was unacceptable with the WVBON because the students needed more hands on-experiences. With the addition of preceptors, only 0.2% of the days are now observation only.

A way to improve the program is to increase utilization of preceptors in the clinical sites. Currently, the students have a faculty member and a preceptor at all times until the fourth semester. Beginning with the class of 2020 cohort, students will be alone with the preceptor during the third and fourth semester. They can be more involved in some areas such as surgery.

Although the director and registration have been ensuring the nursing students are on track in the program, the college has started Degree Works, which is in progress for the nursing students. By May of 2018, Degree Works will be utilized for each graduate and for the incoming cohort. Degree Works is a more reliable way to ensure the students are on-track and have completed required courses.

Tutor.com has been available for the students and will be utilized more for the incoming cohort in their general education courses and the nursing courses.

Although a few private scholarships are available through 40&8, Grant Memorial Hospital and Nellie Nelson, new scholarships will be explored from private donors and other community resources.

The college will explore opportunities for grants to offset the cost of the program.

Conversations have been underway with the CEO of Grant Memorial Hospital (GMH) to enhance the current in-kind contributions. In fall of 2018, it is expected GMH will be even more supportive of providing a permanent adjunct instructor at a reduced rate.

Marshall University and West Virginia University have been cooperative in providing a Bachelor's of Science program on-line with the graduates. Plans to complete a 2+2 articulation with WVU Parkersburg and began one with Shepherd University.

Program Revisions Made in Response to NCLEX Pass Rates, Student Surveys, Graduation and Employer Surveys

NCLEX

The NCLEX pass rate was 71.4% for the SWVCTC Moorefield Division (Class of 2010) which unacceptably low and should have been 80% or higher per ACEN and the WV BON.

Problem #1: Students chose not to take the NCLEX review because of cost.

Action: The NCLEX review was mandated if the student scored less than 850 on the Exit HESI or if a combined average was less than 850.

Results: For the Class of 2012, students reported it gave them a “wake up call”. Eighty eight percent (88%) of the class took the review even though only 38% of the students were mandated to take the exam. Some students had not budgeted for the exam because they did not believe their HESI scores would be low. All felt it was beneficial.

Decision: To make a NCLEX review mandatory for all graduates starting with the Class of 2014. Not all students in the Class of 2014 felt it helped, however the decision remains since the NCLEX pass rate improved.

Evaluation: The Class of 2014 had a NCLEX pass rate of 88.88% and a Kaplan Review. The Class of 2016 NCLEX pass rate is 94.73% and a Kaplan Review. A few students provided feedback and stated they did not think it helped them pass the NCLEX. For the Class of 2016, Elsevier offered a Live Review and the cost was added to their tuition which decreased the financial cost for the students in the last semester which is when costs of graduation and the testing increases.

Problem #2: Questions had been allowed during exams until it was noted in fall, 2012 that those who asked questions had good classroom scores but low HESI scores. One of those students in the first cohort had also failed the NCLEX exam. There was concern that student inquires led to correct answers and/or resulted in a loss of confidence to commit to an answer and poor performance on HESI exams and NCLEX.

Action: A test policy was developed to eliminate the ability to ask questions.

Results: HESI scores improved for those who had asked questions prior to implementation of the policy

Decision: Continue with the current policy.

Evaluation: The NCLEX pass rates and the EXIT HESI scores continue to trend up. The 2011 Class average is 818, 2014 Class average is 818 and 2016 Class average is 941; will continue current policy to withhold questions during exams.

Problem #3: Several of the graduates reported they had exerted minimal preparation for the NCLEX after graduation in the first cohort (2012) which resulted in subpar NCLEX pass rates.

Action: The faculty discussed the need for preparation throughout the program starting with the 2014 Class.

Results: Students reported better preparation after graduation.

Decision: Continue discussing the need for proper preparation and the possibility of testing for at least 4,000 questions.

Evaluation: NCLEX pass rates are trending up. Per a recent conference, it is now recommended students take 5,000–7,000 questions.

Problem #4: Students had not been serious regarding weekly test questions on the NCLEX 4000 in Role Transitions in the first cohort which led to inadequate preparation for the NCLEX and Exit HESI.

Action: Made the environment more conducive for testing. Faculty monitored scores and offered remediation if the student scored less than 70%.

Results: Scores trended up.

Decision: Continue to administer 100 questions weekly.

Evaluation: Students seem to take the questions more seriously. The Role Transitions course was revised to Professional Transitions in the new curriculum. Added was the CAT which was scored but not added into their grade. Thirty five percent (35%) were found to be in the minimally prepared range and the rest were in the acceptable range. None were in the range requiring further preparation. The Management HESI was new for the 2016 Cohort and the average is 916, the national average is 845. Will continue the Management HESI and consider making “minimally accepted” as the minimum score in NU 245.

Problem #5: Students in the Class of 2010 reported being overwhelmed with the Pearson Vue testing and became distraught if they had to take more than 75 questions. They felt this had led to their failure in the NCLEX.

Action: Faculty developed a Mock NCLEX and the students had to take 265 questions, schedule breaks and show ID.

Results: The Class of 2012 reported that the Mock NCLEX was beneficial.

Decision: Continue for all cohorts.

Evaluation: The NCLEX pass rates have trended up for each cohort with a 94.74% pass rate for the Class of 2014. Will continue a mock HESI for each cohort; students stated that they did not realize how difficult it is to take a timed exam with up to 265 questions before.

HESI

Problem #1: The SWVCTC cohort students were nonchalant about taking the HESI exams because it was not added to their grades which led to poor Exit HESI scores and failing NCLEX.

Action: Added the HESI results to the grades.

Results: The students were more serious and there was a direct correlation of the HESI scores with classroom scores. Therefore, allowing another objective way to determine the student's ability to progress.

Decision: Continue for all cohorts.

Evaluation: The HESI exams are being utilized more appropriately as a tool in monitoring individual student progress in every cohort and curriculum. In the new curriculum, a custom tooled HESI was administered in all concept modules which encompass the second Drug Calculations, the second Health Assessment and Professional course and factored as the final grade. If a student fails the HESI, the student is permitted to take a second exam in semester one through three; and three exams in semester four. Will monitor the NCLEX pass rates and compare it to the HESI scores, will consider implementing a mandated pass rate for each course additionally and add the conversion score with other exam grades.

–Class of 2016 had a HESI exam for every concept course. Reviewing at the end of the curriculum, the HESI scores are a very predictive indicator of who did not complete the program because they failed the NCLEX. The CAT added in the Professional Course was the strongest predictor of NCLEX failure.

Decision: For the Class of 2018, will make a minimum passing score for each course. Mandated — 750 in the first semester, 800 for the second and third, and 900 for the EXIT HESI.

Pharmacology

Problem #1: Students felt ill prepared for NCLEX because they felt weak in the area of pharmacology in the Class of 2010. Some of the students in the Class of 2012 expressed the desire to have pharmacology threaded more through the curriculum and to continue the pharmacology course. Up to 18% of the NCLEX includes Pharmacology which may severely affect passing the NCLEX.

Action: When the program was started for EWVCTC, AH 241 Pharmacology for Allied Health was offered in the last semester for the Class of 2012. More pharmacology was threaded in the NU Nursing Care courses throughout the program and the AH 241 course was continued for the Class of 2014. In the new curriculum, Pharmacology is threaded in the fundamentals and added to Drug and Dosage Calculations I and II, utilizing the concept teaching method. An example is teaching peaks, troughs, onset of action of medications and calculating when the nurse will see the most effects of the medication using a drug insert. A form is being developed by faculty to help students learn medications by their classification.

Results: The NCLEX scores have increased in each cohort and according to the graduate surveys, individual graduates felt better prepared. According to the employer surveys, Pharmacology scores increased. The Drug Dosage Calculations HESI was utilized for the 2016 cohort and the scores were very good, the class average is 1001. One student did not miss any questions which resulted in a score of 1226.

Decision: Will offer the AH 241 Pharmacology for Allied Health as an elective in the third semester for the 2016 class. The new curriculum has Pharmacology threaded throughout. The benefit of a Pharmacology elective is to fulfill the elective requirement, review and expand pharmacology knowledge, provide a Pharmacology course which is usually required by BSN programs and will aid in maintaining full-time status. For the Class of 2018, the Pharmacology course was revamped and changed to NU 255 Pharmacology. Most BSN programs require a separate Pharmacology course and this course will suffice.

Evaluation: The actions have made a positive change as evidenced by improving NCLEX scores, and graduate and employer surveys. The Pharmacology course was added as an elective in the third semester and all nursing students completed the course. With the concept-based teaching, drug classifications were emphasized more. A hand-out was devised and given to students; students filled in the blanks with drug names and were asked to identify major considerations.

For the Class of 2018, the NCLEX was revised and will only test knowledge regarding generic drugs. When teaching Pharmacology, instruction will use generic drug names only.

Clinicals

Problem #1: During community and in specialty areas such as surgery, students were present only as observation for the Class of 2014. It was felt by the WVBON that this was excessive.

Action: For the Class of 2016, preceptors were identified according to the WVBON requirements. A preceptor form was developed which includes the SLOs, objectives and skills approved to perform under direct supervision of the preceptor with the stipulation that a faculty member had to be present in the facility during the clinical time.

Grant Memorial Hospital and the director approved individual preceptors in specialty areas and the forms were signed.

Results: The clinical faculty and the director have had formal and informal discussions on the efficacy which has been very positive. The professional nurses are embracing the opportunity to pass on their knowledge while maintaining safe and effective care. The students are pleased with the ability to interact with professional nurses. The forms are updated each semester. This markedly limits the observation time.

Decision: The preceptor skills sheet will be updated each semester and reviewed with the preceptors. A preceptor will be obtained for the third semester at the Renal Center. The community preceptors will be obtained for Hospice, Health Department and School Health Nursing in the fourth semester. Faculty members will not have to be present in the community settings but will remain at the hospitals and will also maintain no more than 8-10 students per faculty member.

Conclusion: The implementation for preceptors has been positive in the second semester and will be expanded in the third and fourth.

Evaluation: Students stated they like the one 12-hour day in the last semester with a preceptor. The director received only positive feedback from the students, clinical faculty and preceptors.

Documentation

Problem #1: According to the employer surveys, documentation was indicated as a weak area for the Class of 2012 and 2014. Faculty also observed students struggling with documentation in the Class of 2010. Poor documentation is a major problem for the practicing nurse.

Action: The faculty added a documentation workshop in the first semester for the Class of 2012. Another documentation workshop was added to the third semester for the Class of 2014. A checklist was added to each nursing note for the Class of 2016 as a reminder for students to assess. For the next semester, students will have to write out the entire assessment while using the checklist only as a reminder.

Results: The surveys are demonstrating a higher employer satisfaction. According to faculty, the documentation still seems weak for the current cohort. Re-evaluation is required each semester.

Conclusion: Documentation remains an area of concern and the faculty is exploring ways to improve. In the previous curriculum, the second semester courses were OB and Psychiatric Nursing; Medical/Surgical was taught in the third and fourth semester. The current semester includes all of the above and therefore, the expectations are much higher.

Reevaluation: January 24, 2017 – on this graduate and employer surveys, documentation was not listed as a weakness.

Leadership and Delegation

Problem #1: Leadership and Delegation were found to be weaknesses according to the graduate and employer surveys for the Class of 2014. These are desirable attributes of a practicing nurse.

Action: The students were given the written state law, Code and Delegation and it was discussed throughout the program for the former cohorts, and will be discussed in future cohorts. A team leading day was added for the Class of 2012. Students were paired with a nurse on a medical/surgical unit for one day and the team cared for up to five patients in the Class of 2014. For the current cohort, students are required to explore the Board of Nursing site. Questions have been matched on exams in the first two semesters and will continue for the last year. In the second semester, students were required to do a presentation on a natural disaster and act as the administrators to maintain care with limited resources. A documentation exam along with a leadership project will be added to the professional nurse course in the fourth semester.

Results: The leadership and delegation are still cited as weaknesses but are improving as indicated in the surveys. The student presentation was well executed in the current cohort. Results of the current cohort are not available until November of 2018.

Conclusion: Improvements are being made, however more evaluation is required.

Reevaluation: January 24, 2017 – Leadership and Delegation were no longer considered weaknesses.

eBooks

Problem #1: Students in the Class of 2016 frequently complained about eBooks and felt it would be more beneficial to have hard back text books. This was the first time they were used. The students felt it placed them at a disadvantage in being successful in the program.

Action: With Elsevier, students now receive a hardcopy and eBook bundle for Fundamentals, Nursing Concepts and Health Assessment. For the Drug Calculation course, eBook is only available.

Changes Implemented per Cohort

Class of 2012: This was first EWVCTC cohort: HESI scores were factored in exam grades. A mandated NCLEX review course for those with HESI scores below the 850 benchmark. NCLEX rates increased. A documentation workshop was added to the first semester. Pharmacology was moved to the fourth semester and given in the traditional setting. A team leader day was added. The concept map was replaced with the concept wheel for the last semester. Per the employer survey from the Class of 2014, these were no longer weaknesses.

Class of 2014: Added an additional documentation workshop in the third semester. Students were paired with a registered nurse where they both provided care for at least five patients for one clinical day. A NCLEX review course was mandated. Continued the AH 241 Pharmacology course and threaded pharmacology throughout the program. The concept map was replaced with the concept wheel for the third and fourth semesters. NCLEX scores improved.

Class of 2016: Implemented use of preceptors while faculty members are in the facility. A worksheet was added in NU 143 to match SLOs with developmental stages. Delegation and leadership was added to each semester and a disaster presentation was added to NU 143. An assessment checklist was added to the nursing notes. The concept wheel was added in the first semester, in addition to the concept map. The students have 2 credit hours of mandated Drug Calculation in the new curriculum. The course was taught in the second semester to include more application of pharmacology principles. In the last semester, students may be with a preceptor without a faculty member in the facility. The day was increased to 12-hours to closer resemble a normal work day. Observation days were limited to time in the Renal Center, NICU and PICU which is 4 to 5 days throughout the program. A management exam and CAT exam was added to the Professional Course. A Live Review was mandated by Elsevier instead of Kaplan. NCLEX scores were above 80%. ACEN approved the program and stated these actions improved documentation of successfully meeting the SLO. Students gave very positive feedback in being placed with preceptors and felt they enhanced the learning experience. The students were better able to interact with staff and the staff gave more positive feedback on the students' performance. All believed it improved engagement.

Class of 2018: Used an eBook and text book bundle.

Plan: The director will continue to monitor the HESI exams which are given for all Concepts courses, Drug and Dosage Calculation and Health Assessment classes. The HESI exams for the Concept courses have been specifically made for WVCADN therefore national comparison cannot be made. Currently, the program compares with the other programs in the WVCADN. The current class has verbally stated they liked having the hardcopies along with eBooks.

Class of 2018: Sub-standard HESI scores were directly correlated to non-progression due to failure and NCLEX failure.

Plan: HESI minimum scores were implemented for each semester. In the first semester, the minimum score is 750. In the second semester, the minimum score is 800. In the third semester, the minimum score is 850. In the fourth semester, the minimum score is 900.

Identification of Weaknesses or Deficiencies

As per the employer and graduate surveys in 2014, weaknesses included documentation, leadership and delegation. Workshops were added to the concept courses and sim charting was added to improve documentation. With the last surveys, these were no longer found as weaknesses.

Student Outcomes

The student outcomes attest to the success of the program, these evidence by the following data:

Five year data on graduates

Cohort	Attrition Rate	Graduated within two years	NCLEX Pass rate on the first attempt	Licensed within one year of graduation	Employed within 6 months of graduation	Employed in WV within one year of graduation
2012	10%	100%	88.88%	100%	100%	77.7%
2014	5%	100%	94.73%	100%	94.73%	84.2%
2016	22%	100%	85.71%	100%	92.85%	92.8%

Data on Student Placement

The placement of the graduates extends beyond the South Branch Valley in West Virginia which indicates the diversity of the graduates. Although taught in rural WV, some of the graduates are employed in major medical centers. The employment is dispersed between acute care, long term care and community care. A majority of the graduates were employed within six months of graduation, most within days of passing their NCLEX.

- ◆ All but two graduates out of fifty-one (3.9%) were employed within 6 months of graduation. One had failed the NCLEX more than once which delayed her employment but was hired full-time within one week of passing. The other had some difficulty with interviewing skills but was hired within eight months of graduation after job coaching by the nursing faculty.
- ◆ All are working in their field of study as Registered Nurses.
- ◆ The graduates from the program are employed at Grant Memorial Hospital, Grant County Rehabilitation Center, Charleston Area Medical Center, Valley Health in Virginia, Pendleton Manor Nursing Home, Sentara in Virginia, Martinsburg VA Center, Maryland Federal Prisons, WVU Physicians Hospitals, Elkins Memorial, Grant Hospice, Grant County Health Department, Dawnview Rehabilitation, Western Maryland Health Systems, United Hospital in Clarksburg, a rural health

primary care facility, local OB office, Hardy County Health Department and hospitals in Texas, Louisiana, Pennsylvania.

Data on Furthering Education

Lifelong learning is emphasized in the program.

- ◆ 23.5% of the graduates have obtained or are in the process of completing a BS in Nursing degree.
- ◆ 7.8% are in the process of applying and/or completing a Master’s of Science in Nursing with plans to complete a nurse practitioner (NP) program.
- ◆ One is enrolled in a MS NP program, two others have applied.

Final Recommendations by the Governing Board.

The WVBON made a site visit in April, 2017. They required the following:

Concern:	Action Taken	Status as of 10/13/2017 WVBON meeting
Noelle working to full capacity	Found loose connector which has been tightened	Resolved
Medication Carts not scanning	Called the manufacturer and distributor, the software was never developed.	Resolved, the WVBON was satisfied with the improvising with using manual barcodes.
Update on mentoring on the new faculty member	Reported the status of the mentoring of the new permanent part-time adjunct instructor.	In progress and will be completed on 5/15/2018. Will need to continue to report progress to the WVBON on the Education meetings.
Not utilizing blackboard	Nu 255 Pharmacology which is an elective has been placed on blackboard. The PowerPoints, exams and other items have been placed on blackboard for NU 255. PowerPoints have been placed for NU 234.	Resolved
More documentation on the EMR at Grant Memorial Hospital.	IT has made documentation by the students available and the faculty may co-sign.	Resolved

Synopsis

Although the program is relatively new and very small, the above data demonstrates the positive impact upon the students and the community. Thanks to program, fifty-one former students are now practicing, professional registered nurses. Sixteen more will potentially join their ranks in May 2018. To quote Mary Anne Radmacher, "One person can indeed make a profound difference. Leadership and change begin in a room with a person and a vision." Eastern West Virginia Community and Technical College had the vision. Their graduates have made a profound difference.

Appendix A

Curriculum – Fall 2014 to present – WVCADN Curriculum - 2016 Cohort HESI Results							
2016 Cohort	NU134– Introduction to Nursing Concepts	NU142– Drug Dosage and Calculations II	NU143– Health Assessment and Diagnostics II	NU144– Nursing Concepts for Health and Illness I	NU234– Nursing Concepts for Health and Illness II	NU244– Synthesis of Nursing Concepts– EXIT HESI	NU245– Professional Nursing and Health Systems– Management Test
Class Size	18	16	16	16	14	14	14
Class AVG	889	1001	835	819	819	941	916
Range	601-1060	644-1226	589-1049	682-1000	622-1160	721-1179	576-1224
Percentile Rank	N/A – Custom made for WVCADN (indicated as 0 in the 2016 cohort HESI results graph)	63.7	49.56	N/A – Custom made for WVCADN (indicated as 0 in the 2016 cohort HESI results graph)	N/A – Custom made for WVCADN (indicated as 0 in the 2016 cohort HESI results graph)	85.14	68.54
National AVG	N/A (indicated as 0 in the 2016 cohort HESI results graph)	921	833	N/A (indicated as 0 in the 2016 cohort HESI results graph)	N/A (indicated as 0 in the 2016 cohort HESI results graph)	823	845
Comments– A minimum score was not mandated, however an 850 is considered the goal score. Therefore the conversion score was added into their test grade as a final.	*6 did not meet the 850 recommend ed score; 2 retested and passed on the second attempt 2 failed the course	*4 did not meet the 850 recommend ed score; no retesting	*10 did not meet the 850 recommende d score; no retesting	*12 did not meet the 850 recommended score; no retesting	*4 did not meet the 850 recommende d score; 2 retested and their conversion scores were too low to pass 2 failed the course	*3 did not meet the 850 benchmark; 1 passed on the second attempt and the remaining 2 passed on the third attempt	*4 did not meet the 850 recommende d score; 2 retested and passed on the second attempt
*For NU245 the CAT was utilized for the first time–14 took the exam, scores ranged from 13.15 to 18.71; the mean is 16.66; 9 students scored acceptable and 5 were minimally acceptable							

Concept Based Curriculum Starting for the 2018 Cohort HESI Results							
2018 Cohort	N U134– Introduction to Nursing Concepts	NU144– Nursing Concepts of Health and Illness I	NU142–Drug and Dosage Calculations II	NU143– Health Assessment and Diagnostics II	NU234– Nursing Concepts of Health and Illness 1	NU244– Synthesis of Nursing Concepts	NU245– Professional Nursing and Health Systems
Class Size	20	19	19	19	17		
Class AVG	794	825	833	876	869		
Median	806	802	862	868	868		
Range	571–1003	647–1011	470 – 1211	705 –1141	708-1004		
Percentile Rank	N/A	N/A	39.22	56.1	N/A		
National AVG	N/A	N/A	936	836	N/A		
Comments– A minimum score is mandated per semester and the conversion score is considered the final. 1st semester– 750; 2nd semester– 800; 3rd semester– 850; 4th semester– 900; students are allowed to retest once.	The minimum acceptable score is 750. *Students were allowed to test twice with a second version and the mean score was 866. N-5	The minimum acceptable score is 800. *Students were able to test twice with a second version and the mean score was 840. N=7	The minimum acceptable score is 800. *Students were able to test twice with a second version and the mean score was 1123. N=6	The minimum acceptable score is 800. *Students were able to test twice with a second version and the mean score was 1031. N=6	The minimum acceptable score is 850. *Students were able to test twice with a second version and the mean score was 1008. N-7		

***NU 134, NU 144 and NU 234 do not have National Averages available since custom made exams for the program.