**Academic Program Review: Nursing Division Self-Study**

***Instructions:*** *The following pages will guide your submission of your academic program review self-study. Please type your responses directly into the document. The completed self-study instrument and all attachments must be submitted to the Academic Program Review Coordinator and your Academic Dean by September 1.*

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| **Program Under Review** |
| Degree(s): AAS in Nursing |
| Certificate(s): N/A |
| Contact Information for lead on Self-Study: Name: Tina Berry, PhD, MSN, MBA, HCM, RN, Director of NursingCampus: Signal PeakPhone: 1-520-494-5334Email: tina.berry@centralaz.edu |

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| **Program Description, Vision and Outcomes** |
| What is the description of the program as stated in the current CAC catalog:Central Arizona College's Registered Nursing Program prepares students for the medical workforce or to complete further education to specialize in clinical practice, teaching, or administration.  |
| Does your program have any other written mission or vision statements which do not appear in the catalog? If yes, please write them below and indicate where they appear. Yes, the mission and vision statements appear in the **Nursing Student Handbook** as well as on the **CAC, nursing division webpage**. **Nursing Vision:** To provide Quality Nursing Education for Contemporary Practice**Nursing Mission:**  1. To Provide Excellence in Nursing Education
2. Demonstrate Nursing as a Caring Profession
3. Facilitate wellness in others and ourselves
4. Serve students and patients of all ages and cultures
5. Facilitate student learning and student successes using technology

Within the Nursing Student Handbook are descriptions of the definitions for each Nursing Graduate Competency that the faculty and the Director approved in 2015-2016 along with threads across the curriculum. Please see **Appendix A** for a review of this material.  |
| Describe how the program’s description, mission and/or vision aligns with the College’s Mission:The nursing program's description, mission and vision aligns with the College's Mission in the following ways:

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| Nursing Program | CAC  |
| Vision: To Provide Quality Nursing Education for Contemporary Practice | **Vision:** Central Arizona College is the **leader of innovative learner success** and the center for **educational opportunities** in our diverse communities. |
| Similarities: Quality Nursing Education for Contemporary Practice | **Similarities:** Innovative learner success (realistic contemporary practice); center for educational opportunities |
| Mission: To Provide Excellence in Nursing EducationDemonstrate Nursing as a Caring ProfessionFacilitate wellness in others and ourselvesServe students and patients of all ages and culturesFacilitate student learning and students successes through the use of technologyGraduate learning outcomes identify what type of a nursing student CAC graduates are at the end of their program. Student learning outcomes at a program level provide evidence of completion of skills needed to enter nursing practice. These skills include cognitive and behavioral, affective, and psychomotor abilities as learned through content, simulation, skills, and clinical activities.  | Mission:Central Arizona College engages our diverse communities in quality learning experiences for lifelong success by providing accessible, educational, economic, cultural, and personal growth opportunities.Strategic Goals set by the college provide direction for the Nursing program to meet these same goals in the division. For example: One of the strategic goals of the college is to "Expand partnerships with Universities to provide advanced degrees to Pinal County residents". The Nursing Division provides Concurrent Enrollment Programs (CEP's) where students can obtain their AAS degree and either receive their BSN at the same time with NAU or one semester after with ASU.  |

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| What are the student learning outcomes for the **degree** or certificate as currently indicated in ACRES:Student Learning Outcomes for the AAS Degree in Nursing include:Upon completion of the program, the graduate will be able to: 1) (Evaluation Level) Support healthy physiological, psychosocial, cultural and spiritual functioning for patients, families, communities and themselves (Common Student Learning Outcome or CSLO 1 for CAC). 2) (Application Level) Employ sound critical thinking/clinical judgment skills in practice, using evidenced-based nursing competencies to promote safe, quality nursing care (CSLO 2 & 4 for CAC). 3. (Synthesis Level) Continue in developing a professional identity by integrating the nursing role using integrity, ethical and legal practices, and advocating for patients, families and communities.4. (Analysis Level) Practice and maintain a spirit of inquiry by examining evidence that underlies nursing practice and offer insights to improve quality of care to patients, families and communities (CSLO 3 for CAC). 5. (Synthesis Level) Plan with other personnel within the organizational structure to manage patient care through supervision, delegation and coordination. 6. (Evaluation Level) Use and evaluate effective communication to achieve mutually defined goals in collaboration with patients and other members of the health care team. 7. (Application Level) Apply knowledge of medical terminology to all areas of nursing in communicating and caring for patients, families, and communities.  |
| Are the outcomes from your program determined or influenced by any external organization, agency, or accreditor? If so, please explain.Yes, the Nursing Division at CAC is accredited by the Accreditation Commission for Education in Nursing **(ACEN)** at the national level and the Arizona State Board of Nursing **(AZBN**) at the local level. Several program outcomes are required by the regulatory bodies while others are not. For example, program outcomes including NCLEX-RN pass rates (first time takers); employer satisfaction with graduates; graduation rates, etc. are required by the regulatory bodies. Standards set by this body are changing in 2016 for application in 2017 and will not require graduate satisfaction scores and employer satisfaction scores going forward as the data was difficult to collect. The Nursing Division faculty and the Director will determine what data should be collected that is meaningful regarding satisfaction scores. Program Outcome data for the Nursing Division is used to measure Common Student Learning Outcomes (CSLO'S) at the college level. The Nursing Division measures CSLO 1 – Culture and Civic Engagement, CSLO 2 -Integrative Knowledge, CSLO 3 – Personal and Professional Development, and CSLO 4-critical reasoning skills by measuring specific self-reported data through post graduate surveys. The Nursing Division did not assign measurements to the CSLO’s for the college until 2016. However, the same data was available for two semesters prior to the 2016 time frame. Therefore, this data was reviewed at the time of this writing and is discussed below. The data collected ranges from spring semester 2015 through spring semester 2016 due to the time frame that the surveys are sent to students six months after graduation. As you will see in **Appendix H**, 85-100% of students agree that the common student learning outcomes are being met through the program outcomes. The measurement of CSLO2 relating to the integration of medical terminology identified the need for the medical terminology course to stand alone, and therefore, this summer an Advanced Medical Terminology for Clinical Nursing (NUR 200) was added to the curriculum. Students, on average, improved scoring from pretest to posttest by 24%. The HESI Exit exam measures students' ability to apply cognitive knowledge gained throughout the program to questions simulating the NCLEX-RN exam's content categories. The % of students who reach a 900 score on the HESI Exit exam at CAC is compared to the nations' score. The data provides trends of areas of strengths and opportunities for improvement in our program for faculty and gaps in knowledge for students. The HESI Exit exam scores decreased in 2016 to the high 700’s and improved in spring semester, 2017 to the low 800’s. Elevate, a product used in conjunction with the HURST Review, was started in the spring semester, 2017, to assist with improving the HESI EXIT exam scores and passing the NCLEX-RN.  |

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| **Program Enrollment and Graduation Trends** |
| Summarize the program enrollment data for the past 3 years in the chart below for fiscal year (fall and spring semesters together):

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| Degree/Certificate | 2015-2016 | 2014-2015 | 2013-2014\* |
| AAS in Nursing | 60 | 60 | 60 |
| CEP/NAU\* part of AAS group | 8 | 0 | 0 |

\*Data prior to 2014 before Director of Nursing started |
| Discuss and explain the factors influencing the enrollment trends:The Nursing Division applications are accepted twice per year for fall and spring semester starts. Nursing accepts the top 30 students out of the applications received. In 2016, CAC and NAU partnered offering a Concurrent Enrollment Program (CEP) where students can select the CEP program and earn an AAS at the community college level and a BSN at the university level at the same time. Although numbers of students accepted to the program have not been affected, applications decreased in mid 2015 due to students needing to start with NAU the semester prior to starting with CAC. Following the change in application dates, many students did not have the necessary prerequisites completed. For SP 2018, CAC and ASU are providing a Concurrent Enrollment Program (CEP) for students. These students will graduate with CAC first, obtain their nursing license and then get their BSN in one semester following obtaining their license. No changes are expected to occur to application dates in the future.  |
| How has the program typically recruited students and marketed the program?Typically, the Nursing Director and Division Assistant provide monthly one to one and one-half hour information sessions across the district. The session is where students learn about the CAC nursing program and what is required to apply to the program. Nursing information sessions are one of the requirements to enter the program and must be attended within one year of the application date. Last year, there were two semesters where there were only 30 students who applied, down from 40-45 student prior to that year. At the request of the Nursing Director, Marketing placed ads in the local newspaper. The Director asked students in the nursing information session where they learned about CAC and if advertising was not the method to draw students in what was? Students stated that word of mouth was the reason they considered CAC as they heard great things about the program. A power point slide is currently rotating through the TV's across the district highlighting the nursing program with information on how to contact the department. Advising is working with nursing students to map out each student’s direction and how many courses need to be taken prior to application. The nursing webpage is another avenue to learn about the nursing program at CAC. |
| Summarize the program graduation rate trends for the past 3 years in the chart below:

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| AAS Degree Nursing | 2016 | 2015 | 2014\* |
| Graduation Trends 2 year numbers | 44/60 | 46/60 | 39/60 |
| Percent  | 73% | 77% | 65% |
| Graduation Trends 3 year numbers | 51/60 | 48/60 | 44/60 |
| Percent | 85% | 80% | 73% |
| Graduation Trends 4 Year numbers | 51/60 | 53/60 | 44/60 |
| Percent | 85% | 88% | 73% |

 \* Director of Nursing hired in Mar. 2014The statistics above are obtained from CAC self-reporting to the Arizona Board of Nursing (AZBN) for the Annual Report Summaries. The reporting definition for graduation includes those students in a calendar year who have graduated within 2, 3, & 4 years of starting the program. * 2 years is 4 semesters and identifies those students who graduate “on time” for the AAS degree.
* 3 years is 6 semesters and identifies those students who graduate one year or two semesters after the suggested completion of the AAS degree.
* 4 years is 8 semesters and identifies those students who graduate two years or four semesters after the suggested completion time of the AAS degree.

Reports are reviewed on a calendar year basis for the AZBN. The Nursing accreditation body, otherwise known as the Accreditation Commission for Education in Nursing (ACEN), requires students complete the program within four years of starting. Data is collected for both the state and national review entities. Improvement is seen in the 2016 trends. |
| Discuss and explain the graduation trends. What efforts has the program made to help students achieve completion?Graduation trends in 2014 decreased in response to a math policy requiring 100% success rate on a 10-question test for students in **every** semester. There were many students who were unsuccessful on this test; waiting then to retake the **course** as a result. The policy was changed in late 2014 to early 2015 and since that time only the first semester students take the high stakes math test offered in the Dosages and Calculation course (NUR 126) which is when the student learns the dosage and calculation material. All students are passing the dosage and calculation course (includes the 100% math exam) due to their diligence in learning math and the effectiveness of teaching math by Professor Amy O'Neil Calloway. Other students in the remaining blocks are tested on math and must remediate on the 10-item test until they receive 100% for the remaining blocks. The process is working well at this time.In 2015, several students in the nursing program (semesters three and four) offered to tutor struggling nursing students in the Learning Center. This was well received and provided supplemental instruction for these students. The availability of students offering to tutor has decreased in 2016 but students are participating more in self-selected study groups which they state helps them learn. The two interventions put forward that students took accountability for work nicely when time can be devoted to these initiatives. There are students in each cohort who start the nursing program who have " life events" occur that are unable to continue in the program. Our current process for students who fail a course is to allow one readmission to the course that the student failed. Subsequent failures in the same or another course require a student's dismissal from the program. This is the reason that the graduation rates are not at the 100% level.  |

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| **Program Curriculum:** *Submit a completed Curriculum Comparison Chart along with the self-study, comparing the CAC program curriculum to three similar programs, for each Degree and Certificate discussed in this self-study. Ideally compare to other Arizona programs, and out of state if necessary.* |
| Using information gained from your curriculum comparisons, discuss the strengths and weaknesses of the current program curriculum for each degree or certificate. **Strengths of CAC Curriculum:** A reduction in credits to remain competitive in the marketplace and to decrease financial burdens for students* In 2014, CAC had 81 credits in the nursing program including prerequisites. Over the course of the last three years the total number of credits decreased to 68 (with prerequisites). Courses removed include Nutrition 200, Psych 203, and Sociology 101. Pathophysiology was added for 2015 but the course was not rigorous enough. Pathophysiology was removed in 2016 and Patho-pharmacology was added this year (one extra credit) to the core content due to the rigor of the course.

Addition of a rigorous medical terminology course – to equip students in using medical terminology* Medical Terminology (1 credit) was integrated into the curriculum in 2015 at the request of the Arizona Board of Nursing instead of adding a 3-credit course as proposed by the Director of Nursing. Data from the integration showed that high performing students improved their medical vocabulary over the course of the semester but low performing students did not improve within the course timeframe. A pilot was performed in the Spring semester of 2017 using course materials from a health science program– rigorous in nature. The pilot showed that all students improved 6-50% with an average of 24%. Faculty voted to use this course and run in the summer months to enhance all student's medical vocabulary.

Course Management Strategies * Courses deleted in the CAC program are still required at the BSN level so students in the CAC program still benefit from the knowledge required when taken before entrance to the program.

Partnerships with Universities* In 2015, CAC began a Concurrent Enrollment Program (CEP) with NAU; the first cohort graduates from the CAC/NAU CEP in the spring 2018 (obtain AAS and BSN at same time). General Education and Prerequisites align with University transfer nursing programs.

Move to LNA prerequisite instead of CNA * The Licensed Nursing Assistant (LNA) requirement begins in the fall 2017 start. Previously, the Certified Nursing Assistant or CNA classes provided the same information, the same test, and the same title following state testing. The LNA and CNA requirements allow students to enter the program at a level above the student who has no medical background. The LNA requirement allows for the state to investigate any complaint lodged against a licensed nursing assistant whereas the Certified Nursing Assistant is only investigated for fraud, theft, and abuse. Hospitals are employing LNA’s while nursing homes are employing CNA’s.

Data Driven Decisions* Outcomes are measured consistently in the nursing division. The following changes were made to the program based on data gathered during the last three years.
1. NCLEX-RN pass rates improved from 2014-2015 but decreased again in 2016. A mandatory review course for the NCLEX-RN called the HURST Review was implemented in early 2015 which was thought to be the increase in the NCLEX-RN rate. A root cause analysis as to the decrease in 2016 showed that five out of the seven students waited seven months to take the exam, all of which who failed the test. Literature shows that students need to take the NCLEX-RN exam within 4-6 weeks of graduation to be the most successful. In spring 2017, a pilot was performed using Elevate, a complementary program for use with the Hurst Review. The nursing division is using the product again this semester to determine the effectiveness of both approaches to improving NCLEX-RN rates. Additionally, the minimum C grade in a course will increase from 76% to 78% in spring semester to improve the standard for passing the NCLEX-RN.
2. End of Course surveys consistently identify that the W130 classroom is too warm. Maintenance is consistently called and there are issues with the way the college is cooled. As a result of the end of course surveys, the Maintenance Department changed light bulbs to LED’s in the classroom and is monitoring the temperature consistently to make changes as needed to improve the classroom temperature.
3. The number of curriculum credits in 2014 for the nursing program was 81. In reviewing the curriculum, the faculty and the Director determined that the accreditation standards provided rationales for decreasing the number of credits including student debt and financial aid difficulties. The curriculum was changed in 2014 and again in 2016 to address the issues. The number of credits decreased to 68 with prerequisites and financial aid assistance can cover the AAS and BSN with 120 credits needed to complete both degrees.
4. The nursing division uses Educational Assessment Corporation (EAC) software to routinely evaluate exams given in the nursing division. Faculty review each exam for issues with questions and distractors. Outcome data is collected with the final exam in each semester. The math data of each final exam in the program identified that 92% on average of the students perform well in math over time. This is exceptional in that the program had issues in 2014 with the students’ math performance and attrition was affected by the math policy.
5. The Medical Terminology class (NUR 200) was created as a result of data showing students who performed well in class were able to improve their medical jargon from pretest to posttest but students who did not perform well in class from pretest to posttest were unable to remember the terms. A pilot confirmed that a rigorous course separate from the major content core courses and given in the summer months provided an improvement on average of 24% from pretest to posttest. The course is now a part of curriculum and the first courses ran this summer with similar results.

**Opportunities for Improvement in CAC Curriculum:**Limit further changes to curriculum for 2017-2020* Keep curriculum the same for at least three years (beginning in fall 2017) to see trends (changes to curriculum occurred rapidly from 2014-2017).

Continue to search for clinical sites that are available for CAC students* Current clinical sites are becoming less available due to facility management changes and BSN preferability

Move forward with Simulation Improvements to Replace some clinical site rotations* Add INASCL standards to simulation to create maximum effectiveness in replacing clinical rotations when needed. The introduction of simulation standards is just beginning and the Nursing Division expects further progress within the next two years.

Offer more seats for students in CEP if appropriate* Add CEP with ASU; begins 2018 (spring) and monitor outcomes over the next three years.
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| **Indicate any external accreditations which the program has. Are there any available accreditations which the program does not have, but may benefit from seeking?**The Accreditation Commission for Education in Nursing (ACEN) is the body who accredits the nursing program every cycle. The Director of Nursing came to CAC in March 2014 and was tasked with a follow-up report for ACEN in October 2014. Standard 6 required outcome data to reflect the reasons changes were made to the program. The data measures prior to the follow up report were not accurately measuring indicators and the data that was obtained was not meaningful. The follow up report provided to the ACEN Board of Commissioners allowed the nursing division to gain six more years of accreditation until 2020 at which time the reviewers will be looking at the improvements made to the program during this time.The Director of Nursing and the Faculty are discussing applying for a Center of Nursing Excellence from the National League of Nursing (NLN). In doing so, a self-study must be done outlying criteria that demonstrates excellence in nursing education. The goal is to try to apply within the next three years. All nursing faculty are asked to become a Certified Nurse Educator (CNE) within the next two years (2017-2019). The certification allows for nursing faculty recognition in teaching nursing students. A faculty development subscription from Nurse Tim is current and the faculty are encouraged to use the resources to learn about the requirements necessary to sit for the exam. Further work is necessary to determine how the department and/or college can assist in this endeavor. |
| **Discuss how the program supports current or future needs for the job market in Pinal County, the state of Arizona, and/or the United States.**The CAC nursing division provides quality nurses to employers across Pinal County and the state of Arizona. Many students are hired at Banner Casa Grande Medical Center near the college. Several students take their licensure exam in Arizona but move to other parts of the nation for employment while others move to different states to take their licensure exam and then begin working. CAC nurses are impacting many states across the nation with employing quality nurses.The introduction of the CEP allows students to earn the AAS in Nursing in combination with the Baccalaureate degree in Nursing (BSN), making employment opportunities readily available while saving students thousands of dollars. Hospital employers benefit in that the number of BSN nurses contribute to "Magnet Status" a recognition of excellence in nursing by the American Nurses Credentialing Center (ANCC). The next 10 years will see a nursing shortage partly due to the numbers of baby boomers needing care and the exit of nurses aged 62 and older to retirement. The deficit is expected to affect Arizona dramatically. Therefore, the college is looking to expand the nursing program to at least one other campus given approval by the college, AZBN, and the ACEN. The intended result is more quality nurses at the bedside in Arizona when the shortage occurs. |
| **For degree programs, identify any specific in-state baccalaureate programs into which this program is particularly suited for transfer.**The major public universities that nursing students seek out to transfer to are Northern Arizona University (NAU), Arizona State University (ASU), and the University of Arizona (U of A). Private institutions such as Grand Canyon University (GCU) and University of Phoenix are among two of the private institutions that CAC students seek post licensure credit from. The CEP programs are in place at CAC to assist nursing students in acquiring a BSN as most employers in the area want to meet the IOM expectation of 80% BSN graduates by 2020 and Magnet Status. The nursing students at CAC pursue a BSN through the following:1. Completing the first year in the CAC program and applying to NAU/ASU to begin BSN courses while completing the 2nd year of the CAC program.
2. Applying and being admitted to one of the two CEP programs (NAU/ASU). The CAC/NAU CEP allows for the completion of the AAS and the BSN at the same time prior to taking the NCLEX-RN. The CAC/ASU CEP allows nursing students to complete the AAS while taking ASU nursing courses. The student then sits for the NCLEX-RN exam. Once the student passes the licensure exam, the student finishes the BSN within the next two semesters.
3. Those students who elect to take only the prerequisites for the university nursing programs can take the AGEC-A requirements and have the block of courses transfer to the University.
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| Indicate any articulation agreements in place for degree graduates.1. NAU – CEP and RN to BSN
2. ASU – CEP and RN to BSN
3. Upper Iowa University – RN to BSN
4. Frontier Nursing University– RN to NP
5. Ottawa University – RN to BSN
6. University of Phoenix – RN to BSN
7. Argosy University
8. Chamberlain College of Nursing – RN to BSN
9. Grand Canyon University – RN to BSN
10. Kaplan University – RN to BSN
11. University of Arizona – RN to BSN
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| **Program Specific Resources:***In this section please focus on program specific resource. You may but do not have to discuss resources available to the college at large such as Blackboard, the Learning Centers, Library, etc. However, if these resources are impacting your program in a positive or negative way which you would like to discuss, please do so.* |
| Discuss the adequacy of the financial and budgetary resources available to the program over the past 3 years:Central Arizona College (CAC) through the capital and operating funds along with the Perkins Grant funding has provided the Nursing Division with the following:1. In 2014, the SIM MAN 3G was purchased through the capital budgeting process for $100,000. The SIM MAN 3G is a high –fidelity mannequin that mimics a patient’s physical presentation in the hospital setting. The mannequin is able to talk, breathe, cough, cry, seize, and urinate. Simulation is the process by which nursing students can care for a patient in the simulation lab utilizing skills needed to care for patients in the hospital. The ability to provide care to a mannequin using scenarios created by National Organizations such as the National League of Nursing (NLN) allows for students to make mistakes with the mannequin before going to the clinical site.
2. Once the SIM MAN 3G was purchased, the faculty and staff discussed turning a closet into a medication room to allow students to practice medication administration steps from the time an order is written to the time the medication is given to the patient. A HUSKY tool chest was purchased with a supply cart to create the image of a medication/supply area like the hospital. The cost for this look-alike medication area was $350 and allows for valuable learning for students while using taxpayer dollars wisely.
3. During the 2015-2016 fiscal year, the college provided monies for the recording of simulations using the SIM VIEWER technology from LAERDAL (mannequin manufacturer). The SIM VIEW set up now allows students who perform simulation to be videotaped and to then review the tape to debrief (review the student’s actions for assistance in developing stronger skills and to discuss opportunities for improvement). The set up occurred along with the acquisition of two cameras with audio in the simulation and debriefing areas.
4. Last year, in 2016, the Nursing Division was given money to acquire a pediatric simulator and thus the simulation area is equipped with six low-fidelity mannequins, three high fidelity mannequins, and a video monitoring system for teaching and learning.
5. This year, the nursing division is adding documentation at each bedside which is directly a result of working with the IT department. Routinely, nurses chart at the bedside and our nursing students will do so also. Two mounted cameras are expected to be put in the regular laboratory to record skills check offs and simulations in the regular lab.
6. Through the generous contributions from the Perkins grant, the CAC Nursing Division received two SIM PADS which can be used to create high fidelity mannequins for simulation in other labs that don’t have the higher tech mannequins. These are being used with the same scenarios as the high-fidelity mannequins.
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| Discuss the adequacy of the human resources available to the program over the past 5 years:I have been at the college for three years and I am not able to tell you what occurred before I was here. However, when I did arrive there were six full-time faculty, a preceptor in the laboratory, and a Nursing Division assistant. Two professors gave their notice and were either retiring or leaving the college when I arrived. One position was not renewed and the other was filled following a one semester temporary fulltime faculty assignment. There are currently five fulltime faculty, one Nursing Division assistant, one Nursing Lab Specialist and the Director position. Although current resources are stretched thin, the addition of a fulltime Program Assistant would allow for some of the Director job responsibilities to be reduced. The Nursing Division Assistant’s job is in the process of reclassification to a Program Assistant. Notification is expected in September of 2017. In December of 2018, the Nursing Lab Specialist is retiring which allows for a review of all laboratory and simulation practices. There may be opportunities for a simulation specialist to work in the area with the mannequins along with the Nursing Lab Specialist. |
| Discuss the adequacy of the technological resources available to the program over the past 3 years:Technology is the cornerstone of learning in the Nursing Division. Over the last three years the Nursing Division moved to e-textbooks, virtual simulations on the computer, high fidelity simulations with the same virtual scenarios to provide consistency, cameras for monitoring and video recording students in simulation and SIM PAD use to turn low fidelity mannequins into high fidelity mannequins. We are in the process of barcoding medications for use during the scenarios and have purchased scanners to identify the patient and the medications given to patients by the nurses to make the task more realistic. Bedside charting will be implemented this fall (2017) with placement of monitors and CPU’s next to every bedside.  |
| Discuss the adequacy of the physical (building space, classrooms, labs, etc.) resources available to the program over the past 3 years:The nursing division utilizes two classrooms with computers (32 each room), one laboratory with six beds, and one simulation area with three high fidelity mannequins. The W building allows faculty to have individual offices that are adequate for preparing curriculum, test review, meeting with students and collaboration with peer faculty. Students are comfortable in the space at the front of the building where they have lunch and take breaks with comfortable furniture. A conference room serves as a viewing area for simulation. There continues to be complaints each year as to the increased temperature of W130; both verbally and by written documentation on surveys which students reply to at the end of each semester. Ernesto Valenzuelo continues to assist the Nursing Division when complaints are made. The following improvements are documented:**2014:*** The Central Arizona College cooling system operates across the Signal Peak Campus and changes made to one location affects another. The complaints for the W130 classroom were most prevalent in April/May and August/September. Multiple calls were made on days in which students complained and Ernesto Valenzuela responded to requests in a timely manner.
* Cooling system regulated per satisfaction of students.

**2015** * Each request submitted provided opportunities for the cooling system to be regulated. The process is problematic throughout the Signal Peak Campus (SPC) in the warm months of summer and late spring.

**2016*** Light bulbs were changed to LED's to assist in decreasing the heat generated from the lights.
* Computers in the lab are one of the reasons that the room is warm at times in the afternoon. When students are not in the classroom, the lights are off and the computers are in safe mode.
* A fan is in the classroom for times when circulated air is necessary to make the classroom cooler.

**2017** * Spring semester end of course surveys continue to acknowledge a hot W 130 in the warm months.
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| **Discuss the adequacy of the academic support resources available to the program and its students over the past 3 years:**Academic support resources include the learning center where students take the admission entrance exam to the nursing program and once in the program take tests if the student needs accommodations. Tutoring takes place at the learning center as well. The testing center is adequate for students taking the required nursing admission test. Appointments are made and students schedules are accommodated. All students who apply to the nursing program must have the results of the entrance tests attached to their application. To date, there are no issues. The accommodation facilities for students who need specific assistance with taking exams is problematic at times when there are many students at the same time who need testing. The Disability Coordinator is aware of the issue and has requested changes in 2017 with the addition of an extra room designated for specific accommodations in testing. Student registration for nursing courses occurs each semester in person as a result of the Nursing Director needing to confirm successful completion of the course prior to the next block of classes. Financial aid services works with students well and no complaints are voiced by students. The cashier’s office accepts fees for specific items such as the graduation fee. No issues are present at this time. The graduation specialist suggested nursing students apply for graduation the semester before the actual date in order to allow for assessment of previous classes in time for students to take any classes needed in the last semester of the program. The nursing division works well with the graduation specialist and students are able to be proactive in completing the guided pathway as a result of this intervention.  |
| **Discuss the adequacy of the student support resources available to the program and its students over the past 3 years:**Student support services include but are not limited to registration, financial aid, advising, and graduation services. The student areas provide assistance to nursing students each semester. No complaints are voiced through the end of course surveys.Nursing students who have received scholarships are complementary of the college's financial assistance. The scholarships routinely come from the CAC Foundation where moneys are designated for assistance.  |

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| **Program Effectiveness** |
| Describe how you measure the success of degree and certificate program graduates in achieving the degree and/or certificate program student learning outcomes. What data have you collected that indicates the level of student success of these outcomes? And According to the data, how well have students achieved these outcomes during the past 3 –5 years? In the fall of 2014/spring of 2015, the nursing programs’ student learning outcomes were revised and taken to the Curriculum Committee for approval. The previous student learning outcome measurements did not measure the intended outcome. Furthermore, the accrediting bodies require specific program outcomes to identify compliance with standards. The following data identifies the Nursing Program’s Effectiveness in meeting program outcomes and for all bodies regulating the nursing division.

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|  | 2016 | 2015 | 2014 | 2013 | 2012 |
| **NCLEX-RN Exam by Calendar Year****Appendix C** | 83.03% | 97.8% | 82.98% | 83.64% | 92.88% |
| **Program Completion****% Graduate on Time** **(4 semesters) (Annual Report AZBN)****Appendix D** | 44/51=86% | 46/53=87% | 39/44=89% | 41/48=85% | 52/59=88% |
| **Graduate Program Satisfaction 6 mos. post-graduation****Survey Results (by semester)** | **See Appendix E** | **Survey Changed Fall 2015****See Appendix E** | **Old Survey****Data not included** | **Old Survey****Data not included** | **Old Survey****Data not included** |
| **Employer Satisfaction Results 6 months post- graduation (** | **See Appendix F** | **See Appendix F** | **See Appendix F** | **See Appendix F** | **See Appendix F** |
| **Job Placement Rates** | **See Appendix G** | **See Appendix G** | **See Appendix G** | **See Appendix G** | **See Appendix G** |
| **CSLO 1: Cultural & Civic Engagement****CSLO 2: Integrative Knowledge****CSLO 3: Personal & Professional Development****CSLO 4: Critical Reasoning** | **See Appendix H** | **See Appendix H** | ***Not Done*** | ***Not Done*** | ***Not Done*** |
| **HESI AVG Scores****Dosage & Calculations****Medical-Surgical****Pharmacology****Exit Exam** | **See Appendix I** | **See Appendix I** | **See Appendix I** | **See Appendix I** | **See Appendix I** |

The NCLEX-RN exam scores from 2012-2014 represent students taking the exam prior to the Director of Nursing starting March 31, 2014. Students at that time utilized the HESI Live Review but the review was not mandatory. Going forward the rate for 2015 was the best at CAC. However, in 2016, out of the seven students who failed the exam, five of them waited at least six months or more to take the exam. Literature supports success on the NCLEX-RN exam when students take it within 4-6 weeks of graduation. To improve the NCLEX-RN exam results and assist students to be successful, in early 2015 the CAC Nursing Division partnered with the HURST review to provide a three day workshop each semester focusing on passing the NCLEX-RN exam. The workshop became part of the program requirements and students take the workshop every semester as a result. In looking at the reasons for failures even with the HURST review workshop, the dashboard suggests that students are not utilizing the videos or the Q-tests to study following graduation. The HURST Review guarantees success if students follow the suggested completion steps. If a student does not pass, the HURST Review provides intense remediation and a second review is free. In the fall of 2017, faculty attended a test writing workshop from Nurse Tim highlighting the necessary process for improving students’ ability to take nursing exams. Additionally, in the spring of 2018, the low grade for a C will increase from 76% to 78%. Across the state, many programs already allow 78-80%. The results of the NCLEX-RN will be monitored to identify whether the strategies selected will improve the students’ performance on the licensure exam. Program completion is consistently averaging 85% which is a very good completion rate. The benchmark in the spring 2018 semester will be increased to 90% given the increase in the grading scale for a minimum of 78% for a C. Graduate Satisfaction continues to improve in select categories. Interdisciplinary education is needed to be able to provide simulation of the realistic work environment when many types of personnel take care of patients. The Pharmacy Technician program and the Nursing Division has worked well in the last year to use students from each program as standardized patients for specific assignments. The process would work well with other disciplines. Employer satisfaction data is limited in the number of employer surveys returned. When surveys are returned the outcomes are favorable. The outcome data for this indicator has been eliminated from the ACEN accreditation standards in 2016. The faculty, staff, and Director will determine at the next faculty meeting whether this indicator will continue to be monitored. Job Placement rates are obtained using student survey graduation data six months post completion of the program. The data is self-reported and therefore is 100%, except in one case where three students did not report obtaining a job. The number of surveys returned is small and therefore reliability is questionable. The CSLO data is outlined in Appendix H. A retrospective review of the data since the program outcomes changed provided evidence of successful requirements being met. HESI scores are outlined in Appendix I with an explanation of results and strengths/opportunities for improvement.  |
| If you have data which indicates the degree to which students in the program are achieving the college’s Common Student Learning Outcomes please share and explain the data. Data from **Appendix H** will be shared here in narrative form. CSLO 1: Each semester students graduate and sit for the NCLEX-RN exam. Six months post-graduation, a survey is sent out to those same students asking questions related to whether they believe the CAC Nursing Program prepared them for nursing practice. Program Outcome one is used to determine the cultural and spiritual engagement that students use to provide care to patients in the clinical setting. CSLO 2: Integrative Knowledge is any knowledge that a nursing student learns throughout all courses studied including but not limited to science, psychology, mathematics, and nursing science to take care of patients. Program Outcome seven in the postgraduate survey tool measures the ability to integrate knowledge from Medical Terminology into the course room based upon student feedback. CSLO 3: Personal and Professional Development relies on a student's spirit of inquiry to ask questions that are thoughtful and provide meaning to the situation. Over time, the student's use of consistent questioning allows for professional development and methods to improve communication with patients and other colleagues leads to personal development. Data from postgraduate surveys identify the degree to which students in the nursing program felt that they developed a sense of professional identity. CSLO 4: Critical reasoning involves filling gaps to make sense of situations such as in the case of patient disease processes and management. A nurse must act as a detective to find pertinent data to lead to nursing interventions that allow the patient independence when possible. Students remark as to how strongly they believe that they used critical reasoning during their education in taking care of patients, groups, and communities.  |
| How many program enrollees or graduates studied at an in-state baccalaureate level institution during the past 3 years? Put the data in the table below. This data is not available as when students leave the program there is no follow up on where they obtain further education. The students who enter the CEP programs from 2015 going forward will provide meaningful data for CAC. The first cohort graduates in the spring semester 2018.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Degree**/Certificate | 2015-16 | 2014-15 | 2013-14 | 2012-13 | 2011-12 |
| Unavailable |  |  |  |  |  |
|  |  |  |  |  |  |

 |
| If a degree is intended for transfer, or has transfer articulation agreements in place, indicate how the degree program supports students with continuing their education at CAC or other institutions. The Arizona General Education Curriculum (AGEC) in Arts allows for nursing students to transfer a block of earned credits to a state institution for the sole purpose of completing an advanced degree in the shortest time possible. The prerequisite courses represent approximately 90 credits to be transferred with 30 credits remaining to complete the BSN degree for nursing. In allowing the students to take courses at the Community College level for transfer, the articulation agreements decrease the amount of financial stress for students and supports timely completion of programs. The CEP programs offer a further benefit to nursing students who can take additional courses with the university institution beginning the semester before starting the CAC nursing program. The intensive study provides some students the ability to earn the AAS and the BSN at the same time while improving NCLEX-RN first time pass rates (hypothesized). The first cohort of graduates complete the 1ST CEP program in the spring of 2018 from NAU. CAC and ASU begin the CEP in spring 2018. See Appendix J. |
| Describe the level of success (via completion rates, GPA, etc.) the program’s prior students have achieved at transfer institutions.The CEP completion rates allow an accurate measure of success for those nursing students completing both of their degree programs. Successful completion is not the only measure that identifies success, however, but the additional NCLEX-RN first time pass rates of those individuals. Outcome data in late spring 2018 will provide evidence of success of the CEP program with NAU.Graduation rates for those students who have transferred to the University systems in the middle of the CAC program are not easily aggregated and are not included.  |
| If a degree or certificate is designed to lead directly into the workforce, describe the success of students in obtaining a job in the field of study upon graduation. Please provide any qualitative or quantitative data you have: A nursing student applying to CAC must earn an LNA license to be admitted to the program. The LNA allows for the nursing student to work a minimum number of hours to provide financial assistance and/or to gain medical experience for the first year.After completing two semesters in the program, students who successfully complete the NUR 150 course (one-week course) can take the NCLEX-PN (Practical Nurse) exam and if successful can work as an LPN. LPN's can make more money than LNAs and are utilized in the Nursing Homes. Nursing students who still need to work during college can work less if more money is earned as an LPN. Finally, those nursing students who pass the NCLEX-RN enter practice with an annual salary ranging from $50,000 to $60,000 based upon the location and the employer’s policies. The progression of jobs in the workforce prepares the student for differing levels of nursing in the community. |
| If your program serves to prepare a student for external certification or licensure of any kind identify the certification or license and the percentage of program graduates who earn/achieve it. Put data in the table below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Licensure/Certification | 2016 | 2015 | 2014 | 2013 | 2012 |
| NCLEX-RN first time pass rates | 83.03% | 97.80% | 82.98% | 83.64% | 92.88% |
| NCLEX-PN first time pass rates\* Multi-exit | 100% | 95.83% | 100% | 97.14% | 100% |

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| --- |
| **Program Continuous Quality Improvement** |
| Discuss how the program has used learning outcome assessment results to improve instruction and/or student learning over the past 3 years: Each semester, faculty individually improve the classes they teach. The faculty improve the didactic portion of the classroom by flipping the class, lecturing less, measuring clinical and simulation experiences just to name a few. At a program level, students provide end of course survey feedback that provide meaningful data on improving learning. Additionally, each course team leader meets once per semester to determine what students’ feel are strengths of the program/courses and what opportunities exist with the program. The following improvements from 2014-2017 include:1. College purchases SIM MAN 3G for Nursing Division in May 2014– Mannequin with high fidelity to improve simulation experience for students.
2. All College Day in fall 2014, Nursing faculty demonstrate SIM MAN capabilities to the college to prepare for student use.
3. In 2015, nursing begins to reevaluate the program’s credits and courses. Evidence by accreditors and financial aid statistics suggest that students are overburdened with debt and nursing programs are credit heavy. Over the course of three years, the number of credits and courses change and the nursing program decreases the number of credits by 12 and increases by 5 making for a total reduction of seven credits overall. Four more credits are decreased through the collaboration with the Science Division in 2016-2017 for the option of testing out of the prerequisite (BIO 181). For those who are unable to test out of the course prerequisite, the student must take the course.
4. In 2015, two SIM PADS are purchased to improve the low fidelity mannequin experience for students since on end of course surveys students feedback suggest that more simulation experience is wanted.
5. In 2015-2016, E-books and V-SIM products are initiated in the course room to decrease costs and improve technology for learning.
6. In 2015, a medication room is created from a closet and utilized for medication preparation.
7. In 2016, a pediatric simulator is purchased and located in the SIM area to assist students in taking care of children; the pediatric rotation does not allow for administration of medication to children and simulation can improve the students’ experience in administering medications using the QSEN competencies (Quality and Safety Education in Nursing).
8. In 2016, the SIM VIEW technology is purchased to record students in the simulator area. The improvement provides for reflection of performance and debriefing to improve skills and communication in practice.
9. In late 2016 and early 2017, Shadow Health products are introduced for assessment, pharmacology, mental health, and geriatrics. The continued use of technology contributes to the student’s learning. Student feedback from the last two semesters identifies the dislike for the Shadow Health product due to the amount of time necessary to complete the virtual simulation.
10. In 2017, bar coding for medication administration is initiated by the Nursing Lab Specialist for improvement in scanning medication at the bedside and for use in simulating a cart on wheels in the simulation area.
11. In 2017, bedside charting is added to the lab to improve the knowledge and application of documentation standards.
12. Students provide feedback on a clinical site that is unsatisfactory and the clinical site is dropped from CAC contracts.
13. Medical Terminology is added (NUR 200) to improve knowledge of medical clinical vocabulary. Previous data showed that high performing students who learned medical terminology through integration throughout the curriculum improved vocabulary by the end of each course; however, low performing students were unable to at the same level. A pilot of the advanced health science course occurred in spring 2017 which showed that those who took the pilot improved medical vocabulary by an average of 22%.
 |
| Discuss how the program has used operational planning goals to achieve quality improvement over the past 3 years:Operational Plans are annual goals identified and presented to the Deans from each division/program highlighting specific areas of importance to the program. Once the annual goal is listed, the Director or Chairperson identifies ways to increase the effectiveness of the strategies and to determine through data collection if the changes to the process are working. Over the last three years the nursing division met goals in the following areas:1. NCLEX-RN pass rates above 90% in 2015; below 90% in 2014 and 2016.
2. Nursing Completion rate improved from 72% to 90% within 4 years of admission to the nursing program. Consistently between 82-90% when collected from Nursing Division Data. When using the Arizona Board of Nursing’s annual report data, CAC’s completion rate within four years is consistently 100%. The AZBN Annual Report will be used in the future to calculate this statistic.
3. CAC’s nursing division is continuing to work on the simulation handbook to encourage use of the INASCL standards that reflect suggestions from the Arizona Board of Nursing Advisory Opinion on Simulation. Faculty are working on improving the skills in working with the mannequin and identifying data collection opportunities.
4. Measurements of the number of students who pursue a Bachelor’s degree and complete the degree will be utilized through the CEP programs. The first cohort to graduate from NAU will be in Spring 2018.

Goals not met include:1. Improving the data collection for employer satisfaction rates. The data is difficult to collect and students who graduate do not consistently want CAC to contact employers.
2. Simulation handbook continues to be a work in progress.
3. Expansion of the nursing program to another campus is in the proposal stages.

Please see operational plans attached in Appendix J. |
| Describe other ways the program has engaged in continuous quality improvement:The nursing division is constantly improving and these highlights are mentioned in the above report. No further information is included.  |

**\* A free standing LPN program is not accredited through Central Arizona College. There is a multi-exit option where the student who is training to be an RN can take a week long late start course after Block II and then sit for the LPN exam. After Block III, the student can also sit for the LPN exam if they wish. However, the student is still training to become an RN.**

|  |
| --- |
| **Program Alignment with Institutional Goals:***Describe how the program has directly or indirectly is helping the College achieve its current strategic goals.*  |
| The nursing program is currently improving the number of nursing students who complete a Bachelor’s degree through the CEP programs (2). The nursing program’s students are completing the program 80-90% of the time in 4 years.Technology is used to improve the students’ learning through realistic measures that mimic practice. Innovation occurs with technology and the IT department is supporting the effort.  |

**Appendix A**

**Nursing Student Handbook**

**Additional Information**

1. **Program Information**

**Mission and Vision of the Nursing Program**

**Nursing Vision: To Provide Quality Nursing Education for Contemporary Nursing Practice**

**Nursing Mission:**

1. Provide excellence in nursing education
2. Demonstrate nursing as a caring profession
3. Facilitate wellness in others and ourselves
4. Serve students and patients of all ages and cultures
5. Facilitate student learning and student success through the use of technology

**Nursing Program Outcomes**

The Nursing Program Outcomes are as follows:

1. Support healthy physiological, psychosocial, developmental, cultural, and spiritual functioning for patients, families, communities, and self.
2. Employ sound critical thinking/clinical judgment skills in practice using evidenced based nursing competencies to promote safe, quality nursing care.
3. Develop a professional identity by integrating the nursing role using integrity, ethical and legal practices, and advocating for patients, families and communities.
4. Practice and maintain a respectful spirit of inquiry by examining evidence that underlies nursing practice and offering insights to improve care to patients, families and communities.
5. Plan with other personnel within the healthcare organizational structure to manage patient care through supervision, delegation, and coordination.
6. Use and evaluate effective communication to achieve mutually defined goals in collaboration with patients and other members of the healthcare team.
7. Apply knowledge of medical terminology in assessment, legal/ethical topics, medical surgical conditions, and QSEN competencies.

**Graduate Competencies**

**Graduate Competencies**

Students who graduate from the Central Arizona College (CAC) Nursing Program are:

***C: Competent and Caring***

***A: Accountable and Responsible***

***C: able to Communicate Effectively***

***G: able to Graduate on time***

***R: Respectful and Ethical***

***A: able to Apply Leadership Skills through Critical Thinking***

***D: Diverse and Develop a Spirit of Inquiry for Learning***

***S: able to Show Nursing Excellence in Clinical Practice***

**Course Student Learning Outcomes**

Each course provides knowledge, skills, and abilities necessary to demonstrate competency and increased rigor throughout the program. The course learning outcomes are measures to determine how successful nursing students are in meeting the knowledge, skills, and abilities necessary to apply concepts to classroom, simulation, clinical, and laboratory activities.

Faculty reviews these outcomes on a course by course basis each semester. Students are expected to meet the course learning outcomes in order to progress in the program. These course learning outcomes are adapted from the National League of Nursing (NLN) Educational Competencies Model and the NLN (2010) Outcomes and Competencies for Graduates of Practical/Vocational, Diploma, Associate Degree, Baccalaureate, Master’s, Practice Doctorate and Research Doctorate Programs in Nursing.

The Faculty and the Director of Nursing base the graduate nurse competencies on the CAC nursing core values which align with the College’s mission and vision. Nursing is a caring profession and strives to provide competent nurses to meet the needs of the communities in which they serve. Through the integration of ethics, values, integrity, and patient centeredness, the student learns to use knowledge and clinical judgment/critical thinking to make decisions involving individual patients and communities. Professional excellence is modeled in the nursing program by the way the faculty and staff provide service to students and through simulation and clinical observation. A contemporary curriculum enables students to complete the program in a timely manner and begin practice. Students are required to meet standards that represent excellence in the didactic, simulation, and clinical areas while at CAC.

Faculty members and the Director of Nursing integrate threads across the curriculum to allow students to improve upon necessary skills to practice in the healthcare setting. The nursing student is exposed to threads of knowledge, skills, and abilities at higher and higher levels across the curriculum. Students are able to improve skills in math, writing, communication, teamwork, nursing knowledge and science, simulation, technology, quality and safety, and personal and professional development. Students are exposed to organizational environments that include cultural, physiological, psychosocial, spiritual and developmental areas. Didactic, clinical and simulation objectives measure comprehensive nursing knowledge and psychomotor skill sets. Nutritional concepts are taught at a basic level and medical terminology starts the process to ensure that students are aware of the language of health care.

***Curriculum Concept Definitions***

**Competency**

Competency is inherent to the practice of nursing. Competency is defined as the ability to plan and carry out knowledgeable, efficient and safe nursing care and assumes an awareness of one’s own limitations. The achievement of competency is evidenced by the student’s ability to provide nursing care in increasingly complex settings and situations.

At the associate level, students learn the skills and knowledge needed to demonstrate competency in classroom, simulation, and laboratory settings. They begin their initial clinical experiences while they are learning to therapeutically communicate and assess patients. Students continue to develop proficiency in their skills and knowledge base for providing nursing care that maintains client safety and client confidentiality. Students must prove competency to demonstrate responsibility and accountability in well-defined settings with individuals, families and groups.

**Caring**

Caring is an essential component of nursing. Caring requires a personal, social, moral and spiritual engagement of the nurse. The nurse provides safe care utilizing personal and professional skills to preserve the rights and human dignity of patients, families and communities. Therapeutic caring is promoted by knowledge, awareness of need, and use of empathy. Therapeutic caring is of benefit to the client. Caring actions do not occur in isolation, but exist within the socio-cultural context of all individuals involved.

At the associate level, students apply and integrate caring behaviors into nursing practice. Students learn to differentiate between caring as an emotional response and a knowledgeable, deliberative intervention. Students incorporate the experience of the client into the self; bringing the caregiver to recognition of the reality of the other’s situation. Students recognize the interaction between their own feelings based on their own past experiences and the experiences identified and incorporated from the other person. They use this knowledge with cognitive and psychomotor activities to produce purposeful outcomes that protect, enhance, and preserve human dignity.

**Accountability and Responsibility**

The practice of nursing responds to health care needs of individuals, families, groups and communities through services such as case finding, health teaching, health counseling, and the provision of supportive or restorative care. Nurses are held responsible and accountable for nursing practice based upon the Profession’s Code of Ethics, Standards of Practice, and legal regulations.

Nurses are responsible for developing and maintaining current nursing knowledge and skills through formal and continuing education and, where appropriate, seek certification in their areas of practice demonstrating this accountability. Peer review and laws are the mechanisms by which nurses are held accountable for practice. The faculty fosters the development of professional responsibility and accountability through students’ self-regulatory mechanisms such as student self-appraisal, standards of academic integrity, honesty, and the maintenance of confidentiality.

At the associate level, responsibility and accountability are foundational to nursing practice. Students identify, explore and analyze the ethical, legal, and political factors that impact upon the role of professional nursing in the health-care delivery system. Nurses are expected to demonstrate responsibility and accountability appropriate to their levels of education, experience and practice.

**Communication**

Communication is the means of sending and receiving messages through symbols, words, signs, and gestures. A student brings to the program communication skills learned through life experiences and prior formal education. These are the foundations upon which theory and application necessary for therapeutic nurse/client interactions and relationships are built.

Communication theory and application of that theory provide the student with the skills needed to interact with clients in a therapeutic manner. In implementing the nursing process, the student applies therapeutic communication relevant to the beliefs and value system of those receiving care. The student then adapts communication appropriate to the cultural background, education, development and health of the individual, family, group or community. Effectiveness in the nurse/client relationship is dependent upon the ability to communicate and collaborate with nurses and other health care professionals. The student learns the terminology and the processes that support relationships with colleagues. These processes include clear, accurate and timely, written and verbal communication. Formal presentations and papers contribute to the development of students as colleagues and nursing professionals.

At the associate level, students are expected to use effective communication. Students are exposed to basic communication and interpersonal theories. Students engage in health history taking and learning about the process of developing a caring relationship. They apply the beginning skills needed to develop a therapeutic relationship with individuals in a clinical setting. Communication skills are applied to individuals, families, and groups across the life span and among culturally diverse populations. Students are prepared to transmit pertinent health care information to other members of the health care team in a confidential manner. Students explore, analyze, and evaluate communication processes with clients in the simulation area and the clinical settings.

**Graduate on Time**

Students are encouraged to progress through the program in a specific order. Due to life circumstances and specific problems that occur during an individual’s schooling, a student may not graduate within four semesters of entering the nursing program. There are two indicators that are used to track graduation on time. The first indicator is a college wide indicator where “graduate on time” means within four years of starting at the college. The Nursing Division monitors the number of students who graduate on time within 2, 3, and 4 years of admission to the Nursing Program through self-reported annual surveys required by the Arizona Board of Nursing (AZBN) and the Accreditation Commission for Education in Nursing (ACEN). The nursing program collects data on retention rates as well.

**Respectful and Ethical**

Students are taught the ethical and legal practice of the registered nurse. The student learns to apply these practices throughout the program and develops the ability to critique themselves in clinical, laboratory, and simulation exercises. Faculty provide opportunities for students to learn the respectful communication patterns that allow open communication. The professional nurse is accountable for the nursing standards that agencies regard as essential to nursing practice. One of these organizations is the American Nurses Association (ANA) whose Code for Nurses is listed below (American Nurses Association, 2015).

**American Nurses’ Association Code for Nurses**

* + The nurse practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person.
	+ The nurse’s primary commitment is to the patient, whether an individual, family, group, community or population.
	+ The nurse promotes, advocates for, and protects the rights, health, and safety of the patient.
	+ The nurse has authority, accountability, and responsibility for nursing practice; makes decisions; and takes action consistent with the obligation to promote health and to provide optimal care.
	+ The nurse owes the same duties to self as to others, including the responsibility to promote health and safety, preserve wholeness of character and integrity, maintain competence, and continue personal and professional growth.
	+ The nurse, through individual and collective effort, establishes, maintains, and improves the ethical environment of the work setting and conditions of employment that are conducive to safe, quality health care.
	+ The nurse, in all roles and settings, advances the profession through research and scholarly inquiry, professional standards development, and the generation of both nursing and health policy.
	+ The nurse collaborates with other health professionals and the public to protect human rights, promote health diplomacy, and reduce health disparities.
	+ The profession of nursing, collectively through its professional organizations, must articulate nursing values, maintain the integrity of the profession, and integrate principles of social justice into nursing and health policy.

**Application of Leadership Skills through Critical Thinking**

Management and leadership skills are essential elements of nursing practice. Through knowledge and application of the theories and principles of management and leadership, nurses organize high quality health care to individuals, families, groups, and communities. Management in nursing occurs at all levels of practice and involves coordination of client care, participation in organizational and fiscal concerns, resource utilization and responsibility associated with client care.

Faculty facilitate acquisition of the technical and conceptual skills students need to become effective managers of client care. Leadership is the ability to influence and guide the decisions and subsequent actions of others. Developing leadership skills involves self-reflection, understanding human processes and envisioning possibilities for enriching people’s lives. An analysis of the health care delivery system introduces students to the importance of nursing involvement in professional organizations, political processes and organizational procedures.

At the associate degree level, students learn contemporary theories of management, leadership and interpersonal processes. Knowledge and skills of supervision and delegation of nursing personnel is routinely reviewed and practiced in simulation and applied in the clinical setting.

**Critical Thinking**

Critical thinking is defined as reflective judgment and reasonable thought that focuses on deciding what to believe or do and is a composite of attitudes, knowledge and skills. Attitude denotes a frame of mind in which there is the recognition of problems. Knowledge involves weighing the accuracy and logic of the evidence and understanding the nature of valid inferences, abstractions, and generalizations. Skill in cognitive application attitudes and knowledge must be demonstrated.

Clinical judgment is the framework within which nurse educators expect students to apply critical thinking skills. Students are required to use knowledge from the natural, behavioral, social and nursing sciences and humanities to assess, plan, implement and evaluate care. They need to be able to arrive at decisions that are specific to the particular circumstances of each individual, family, groups and community to facilitate health. The process of developing critical thinking skills requires students’ to be adult active learners prepared for class, engaged in discussions about reflective thinking, and working with faculty who facilitate the experience in a non-threatening manner.

At the associate degree level, faculty require students to derive information from general studies, the sciences, and nursing theory research to use as a basis for nursing decisions. Students learn to develop nursing interventions by selectively evaluating and integrating knowledge. At this level, students also learn to assess the health as well as the multifaceted needs of individuals, families, and groups at a basic level. Subsequently, students are required to apply information derived from individuals, families and communities to structure clinical judgments and decision-making for common nursing problems in didactic, lab, simulation, and clinical experiences.

**Diversity**

Important relationships between culture/diversity and health care require nursing students to acknowledge and integrate culture-related influences that help shape how individuals, families, groups and communities experience health and illness related phenomena. Culture refers to the acquired knowledge that groups (an individual as a member of a group) use to interpret life experiences and to generate social behavior. Nursing professionals are required to learn, understand, acknowledge and integrate into practice the values, beliefs and daily living patterns of diverse cultural and subculture orientations.

At the associate level, students learn to recognize ways that culture/diversity affects health care experiences of individuals. Students begin to develop and expand the awareness, sensitivity, knowledge and skills of culturally competent caring. Students use these skills of culture-specific understandings and knowledge to elicit and analyze information and to plan culturally appropriate nursing care. They also recognize, acknowledge, and learn to manage interactions between one’s own cultural/subcultural orientation(s) and those of individuals, families and groups, with whom they interact.

**Spirit of Inquiry**

The learning process is an ongoing, dynamic, interpersonal process whereby both the learner and the teacher grow. Learning is a process of sensory perception, conceptualization, and critical thinking. Teaching is the facilitation of learning based upon various principles of education as well as the theories in human development and learning. Through the learning-teaching process, the nurse facilitates health promotion, maintenance and restoration of clients’ health and the multiple transitions of patients’ through the healthcare system. The faculty serves as catalysts, facilitators and role models.

Educational activities are designed to build upon the student’s previous experiences, expand their perceptions, encourage them to clarify, modify and/or reaffirm their values, incorporate knowledge and enhance their interpersonal relations. Through this process, the student has opportunities to develop the ability to think critically, act responsibly, be creative, and communicate effectively.

Learning is most effective when the student is an active participant in the process. Thus, the student implements choices and selects opportunities to develop personal learning-teaching objectives and experiences through course activities and health fair education.

At the associate level, students identify components of the learning process. They perform a learning-teaching needs assessment and develop a teaching plan for a learning need in a cognitive, affective, or psychomotor domain. Students incorporate the learning-teaching role into the nursing role. They develop a teaching project for an individual, family or group situation.

**Show Nursing Excellence in Clinical Practice**

Students are able to apply nursing skills in clinical practice through two different methods. The first method involves simulation. Students work with mannequins through scenarios that faculty select to teach content. Mannequins are low to high fidelity and depending on the goals of the simulation provide students with opportunities to show nursing excellence. Using "*The Simulation Advisory Opinion for Clinical Simulation"* published by the Arizona Board of Nursing, the students participate in simulation using the International Nursing Simulation in Clinical Learning (INASCL) standards. Simulation rubrics are used to collect data on outcomes. The second method is the use of Clinical Evaluation Tools that determine how the CAC GRADS perform in clinical according to the graduate learning competencies. This allows for the students to work with patients accompanied by a clinical instructor who oversees the experience with the faculty for a predetermined number of hours.

At the associate degree level, both methods provide a mechanism to assist students to become novices and increase clinical skills to advanced beginner (Benner, 1994) by the time graduation occurs. Nursing excellence requires the ability of a student to integrate learning from the didactic, simulation, and clinical environments to adequately make decisions that are appropriate to the clinical situation.

**Threads across the Curriculum**

Faculty believe that there are specific skills that need to be practiced throughout the curriculum. These threads include but are not limited to:

**Math** – dosages and calculations are required for medication administration and constitute a safety issue when not performed correctly.

**Writing** – professional writing involves being able to communicate with other colleagues and healthcare personnel in a professional manner using the APA format.

**Communication and Teamwork** – communication involves a clear message and working together with colleagues and other healthcare personnel to provide continuity across disciplines.

**Nursing Knowledge and Science** – a nurse uses the nursing process to provide nursing care to patients, families, communities, and populations and utilizes this knowledge to critically think.

**Simulation** – simulation involves using realistic scenarios that provide a learning benefit to students without the potential for harm in the clinical setting. Pre-scenario work along with debriefing strategies assist the student to learn clinical practice.

**Technology** – technology is used to assist in simulation and didactic areas including Blackboard.

**Documentation** - Docu-Care software simulates medical records that students are required to document in for simulation and clinical practice.

**Quality and Safety** – safety is the outcome of every patient encounter and providing quality care means that students are aware and utilize evidence to make decisions that are safe.

**Personal and Professional Development** – students are taught to take ownership for learning and to work with faculty to improve the process of learning. Students are expected to provide faculty with feedback to identify strengths and opportunities for improvement in each course and as a program overall.

**Cultural, Physiological, Psychosocial, Spiritual, and Developmental (Holistic) Perspectives**-these perspectives are taught throughout the curriculum and apply to every patient’s health. Faculty provide many opportunities to teach and review the application of these principles based upon the developmental assessment of the patient through didactic, simulation, and clinical learning.

**Nutrition-** basic nutritional principles are taught so that students can adequately learn how the patient can improve healthy eating. Students are taught how to teach nutrition using educational principles.

**Medical Vocabulary** – medical vocabulary is important for learning to care for patients. The application of this vocabulary is evident in the test questions that students are required to answer and the simulation/clinical areas that students practice skills in. Critical thinking requires the understanding and analysis of these words as they apply to the nursing process.

**Appendix B**

**Comparison of Three College Curriculums**

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| --- |
| **Name of Degree: AAS in Nursing** |
|  | **CENTRAL ARIZONA COLLEGE** | **EASTERN ARIZONA COLLEGE** | **ARIZONA WESTERN COLLEGE** | **NORTHLAND PIONEER COLLEGE** |
| **General Education/Degree Requirements** | **General Education/Degree Requirements****(28)** | **General Education/Degree Requirements****(21)** | **General Education/Degree Requirements****(21)** | **General Education/Degree Requirements****(32)** |
|  | **Prerequisites: 8****Nursing Entrance Test (passing scores)****LNA****BIO 201: Anatomy & Phys. I****BIO 202: Anatomy & Phys. II****Eligible to register for MATH 141 or higher****Eligible to register for ENG 101****GPA 2.75****General Education: 20 credits****ENG 101: English Composition I****ENG 102: English Composition II****Art and Humanities (pick specific)****PSY 101: Introduction to Psychology** **BIO 205: Microbiology****MAT 141: College Math or Higher** | **Prerequisites: 11****Nursing Entrance Test****LNA in good standing****Reading at 12 grade level or (ENG 113) with a C or better****Completion of HCE 116 or medical dosage calculation competency test****General Education: 10 credits****Chemistry 130: Fundamentals of Chemistry or higher****PSY 101: Introduction to Psychology****BIO 201: Human Anatomy & Physiology I** | **Prerequisites: 7****Anatomy and Physiology I****ENG 101: Freshman Composition****General Education: 14 credits****ENG 101: Freshman Composition****ENG 102: Freshman Composition****MAT 142: College Mathematics with Applications or approved higher level math****ARTS/HUM: 3 credits****PSY 101: Introduction to Psychology** | **Prerequisites:** **BIO 181: General Biology****BIO 201: Human Anatomy & Phys I****BIO 202: Human Anatomy & Phys II****BIO 205: Microbiology****CHM 130: Fundamental Chemistry****ENL 101: College Composition I****General Education: 32****ENL 101 College Composition I****ENL 102 College Composition II****Compass Algebra score of 46 OR ASSET Elementary Algebra score of 41 OR ACT Math score of 21 within one year prior to application to the nursing program****PSYCH 240: Developmental Psych AND****ANT 102 – Cultural Anthropology or****SOC 120 General Sociology** |
| **Program Requirements** | **Program Requirements (40)** | **Program Requirements (51)** | **Program Requirements (46)** | **Program Requirements (40)** |
|  | **NUR 121: Introduction to Trans** | **NUR 120: Nursing One** | **BIO 202: Human Anatomy & Phys II** | **NUR 117: Pharmacology I** |
| **NUR 126: Dosage & Calculations** | **NUR 219: Pharmacology for Nursing** | **BIO 205: Microbiology** | **NUR 118: Pharmacology II** |
| **NUR 122: Health & Illness Trans** | **BIO 202: Human Anatomy & Phys II** | **NUR 117: Pharmacy & Clinical Calc**  | **NUR 121: Nursing 1** |
| **NUR 145: Patho-Pharmacology** | **NUR 130: Nursing Two**  | **NUR 121: Nursing 1** | **NUR 122: Nursing 2** |
| **NUR 200: Advanced Medical Terminology for Clinical Nursing (summer)** | **HCE 240-Human Pathophysiology** | **NUR 122: Nursing 2** | **NUR 125: Practical Nurse Completion** |
| **NUR 221: Nursing Developmental Trans** | **ENG 101: Written Communications I** | **NUR 123: Nursing 3** | **NUR 219: NCLEX Review Seminar** |
| **NUR 222: Nursing Organizational Trans** | **NUR 240: Nursing Three** | **NUR 124: Nursing 4** | **NUR 221: Nursing III** |
| **PAC or DAN: Physical Education** | **FCR/HCE 241: Nutrition**  |  **PSY 238: Human Development**  | **NUR 222: Nursing IV** |
|  | **ENG 102: Written Communication II** |  |  |
|  | **NUR 250: Nursing Four** |  |  |
|  | **BIO 205: Microbiology 205** |  |  |
| **Total Credits: 68 credits with prerequisites** | **Total Credits: 72 credits with prerequisites** | **Total Credits: 67 credits with prerequisites** | **Total Credits: 72 credits with prerequisites** |

**Appendix C**

**NCLEX-RN PASS RATES (FIRST TIME)**

**Appendix D**



**Appendix E**

**Post Graduate Satisfaction Scores**

**Spring 2017**

**Fall 2016**

**Spring 2016**

**Fall 2015– New Survey with New Program Outcomes**

 

**Appendix F**

**Employer Satisfaction**

**Appendix G**

**Job Placement Rates**

|  |  |
| --- | --- |
| **Semester Response** | **% Students who have job 6 months post-graduation** |
| Fall 2013 | 100% |
| Spring 2014 | 100% |
| Fall 2014 | 100% |
| Spring 2015 | 100% |
| Fall 2015 | 75% (3 not reported) |
| Spring 2016 | 100% |

Data taken from postgraduate surveys 6 – 9 months following graduation. Self-reported.

**APPENDIX H**

**CSLO ALIGNMENT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Program Outcome** | **CSLO** | **Fall 2015/SP 2016 N=11** | **Fall 2016 N=12** | **SP 2017 N=12** |
|   |   | SA | A | N | D | SD | SA | A | N | D | SA | SA | A | N | D | SA |
| Support healthy physiological, psychosocial, developmental, cultural, and spiritual functioning for patients, families, communities, and self. | 1 | 70% | 30% | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 0% |
| Employ sound critical thinking/clinical judgment skills in practice using evidenced based nursing competencies to promote safe, quality nursing care | 4 | 55% | 45% | 0% | 0% | 0% | 67% | 25% | 8% | 0% | 0% | 67% | 25% | 8% | 0% | 0% |
| Develop a professional identity by integrating the nursing role using integrity, ethical and legal practices, and advocating for patients, families and communities | 3 | 90% | 10% | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 0% |
| Practice and maintain a respectful spirit of inquiry by examining evidence that underlies nursing practice and offer insights to improve care to patients, families and communities | 4 | 64% | 36% | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 0% |
| Apply knowledge of medical terminology in assessment, legal/ethical topics, medical surgical conditions, and QSEN competencies | 2 | 64% | 27% | 9% | 0% | 0% | 58% | 25% | 8% | 0% | 0% | 56% | 25% | 8% | 8% | 0% |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | **DOS CALC** | **National** | **PHARM** | **National** | **MS** | **National** | **Exit** | **National** |
| **2014** | **Version 1** |  | **Version 1** |  | **Version 1** |  | **Version 1** |  |
| **5/14** | 1070 | 905 | N/A | N/A | N/A | N/A | 893 | 856 |
| **12/14** | 1105 | 921 | 902 | 837 | 828 | 849 | 846 | 858 |
| **2015** | **Version 1** |  | **Version 1** |  | **Version 1** |  | **Version 1** |   |
| **5/15** | 1121 | 921 | 886 | 837 | 780 | 817 | 893 | 823 |
| **11/15** | 1105 | 922 | 854 | 818 | 777 | 817 |   |   |
| **2016** | **Version 1** |  | **Version 1** |  | **Version 1** |  | **Version 1** |   |
| **4/16** | 1037 | 922 | 873 | 818 | 803 | 841 | 778 | 823 |
| **11/16** | 1047 | 936 | 853 | 832 | 794 | 841 | 799 | 845 |
| **2017** | **Version 1** |  | **Version 1** |  | **Version 1** |  | **Version 1** |   |
| **4/17** | 1048 | 936 | 885 | 832 | 758 | 841 | 832 | 845 |
| **11/17** |   |   |   |   |   |   |   |   |

**APPENDIX I**

**HESI TESTING**

**BENCHMARK SCORE 900**

The dosage and calculation HESI test identifies the ability of a student to perform math problems related to administering medications. Scores across each year from 2014 to 2017 average from 1037 to a high of 1105 compared to the national range of 905-936. The data coincides with the introduction a new math faculty member who continuously exceeds expectations of facilitating students in the math area.

The pharmacology HESI exam provides evidence from the mean over time that CAC faculty are facilitating students to understand and apply pharmacological principles effectively. While the mean numbers for CAC are routinely above the national standard, the results are approaching the 900 HESI benchmark. Through improvements from student feedback of increasing the number of hours of the Pharmacology class (increase from 3 to 4 hours) and the ability to add pathophysiology to the pharmacology content (faculty member improvement), the hypothesis is that the mean of 900 will be met within the next few semesters.

The Medical-Surgical HESI results are problematic from the standpoint that CAC’s rates are below the national average in every year and consistently in the 700 range four of the last six times the exam was given. Results are shared with the faculty and thoughtful reflection has not identified specific causes of the issue. A detailed analysis is necessary to determine if there are portions of the course that do not reflect the NCLEX-RN content or whether another opportunity for improvement is clear.

The Exit HESI exam identifies students’ overall knowledge and application of principles and application of content taught throughout the program. In 2016, scores were well below the national benchmark and a program called Elevate was piloted in the spring of 2017. The mean improved to 832 but was still below the national average benchmark of 845. More time is needed to determine if the second Elevate course improves the results.

**APPENDIX J**

**CEP PROGRAM CURRICULUMS**

**CAC/NAU CEP**

 Pre-Professional Requirements for NAU (Students should take the AGEC requirements at CAC)

BIO 181-181L (Unity of Life) (4) or CHM 130 and 130 L (5)

Bio 201, 202, 205 Anatomy, Physiology and Microbiology (12)

PSY 101 Introduction to Psychology (3)

PSY 240 Developmental Psychology (3) or PSY 203 at CAC (3)

NTS 256 Medical Nutrition 3 or NTR 200 at CAC (3)

STA 270 (3) or PSY 230 Applied Statistics or Introduction to Statistics in Psychology at CAC (4) or MAT 162 (3)

BIO 320 General Pathology at NAU (3) or HPM 173 (3) (Pathophysiology at CAC –approved for NAU)

|  |  |  |  |
| --- | --- | --- | --- |
| **Fall 2016 START** | **Fall 2016** | **SEMESTER 1** | **6-13** |
| **No Fall Session CAC for this group** | NAU NUR 330 | Nursing as a Discipline and Profession | 3 |
| NAU NUR 321 | Gerontology | 3 |
| NAU Prereq | Prerequisite (up to 7 credit hours before block courses) | Up to 7 |
| **Spring 2017** | **SEMESTER 1** | **10** | **Spring 2017** | **SEMESTER 2** | **2** |
| CAC NUR 121 | Introduction to Nursing Transitions | 8 | NAU NUR 307NAU NUR 307/L | Health Assessment for Registered NursesHealth Assessment for Registered Nurses Practicum | 11 |
| CAC NUR 126 | Principles of Pharmacology and Drug Dosages | 2 |  |  |  |
| **Summer 2017** |  |  | **SU 2017** | **SEMESTER 3** | **6** |
| **No summer session CAC** | NAU NUR 320 | Basic Principles of Palliative Care | 3 |
| NAU NUR 390W | Research and Evidence-Based Practice | 3 |
| **Fall 2017** | **SEMESTER 2** | **11** | **Fall 2017** | **SEMESTER 4** | **3** |
| CAC NUR 122 | Nursing in Health Illness Transitions | 8 | NAU NUR 424 | Manager of Care/Health Care Systems | 3 |
| CAC NUR 145 | Pharmacology | 3 |  |  |  |
| **Spring 2018** | **SEMESTER 3** | **8** | **Spring 2018** | **SEMESTER 5** | **3** |
| CAC NUR 221 | Nursing in Developmental Transitions | 8 | NAU NUR 420 | Family Nursing Roles | 3 |
| **Summer 2018** |  |  | **Summer 2018** | **Semester 6** | **5** |
| **No summer session CAC** |  | NAU NUR 442 | Public Health Nursing | 5 |
| **FALL 2018** | **SEMESTER 4** | **8** | **Fall 2018** | **Semester 7** | **5** |
| CAC NUR 222 | Nursing in Organizational Transitions | 8 | NAU NUR 450C + 452 | Nursing Leadership (Capstone)Nursing Leadership Applications | 32 |

|  |  |  |  |
| --- | --- | --- | --- |
| **SU 2016 START** | **SU 2016** | **SEMESTER 1** | 8 |
| **No summer session CAC** | NAU NUR 330 | Nursing as a Discipline and Profession | 3 |
| NAU NUR 321 | Gerontology | 3 |
| NAU NUR 307 | Health Assessment for Registered Nurses | 1 |
| NAU NUR 307/L | Health Assessment for Registered Nurses Practicum | 1 |
| **Fall 2016** | **SEMESTER 1** | **10** | **Fall 2016** | **SEMESTER 2** | **3** |
| CAC NUR 121 | Introduction to Nursing Transitions | 8 | NAU NUR 320 | Basic Principles of Palliative Care | 3 |
| CAC NUR 126 | Principles of Pharmacology and Drug Dosages | 2 |  |  |  |
| **SP 2017** | **SEMESTER 2** | **11** | **SP 2017** | **SEMESTER 3** | **3** |
| CAC 122 | Nursing in Health/Ill Transitions | 8 | NAU NUR 390W | Research and Evidence-Based Practice | 3 |
| CAC 145 | Pharmacology | 3 |  |  |  |
| **SU 2017** |  |  | **SU 2017** | **SEMESTER 4** | **8** |
| **No summer session CAC** | NAU NUR 442 | Public Health Nursing | 5 |
| NAU NUR 424 | Manager of Care/Health Care Systems | 3 |
| **FALL 2017** | **SEMESTER 3** | **8** | **Fall 2017** | **SEMESTER 5** | **3** |
| CAC 221 | Nursing in Developmental Transitions | 8 | NAU NUR 420 | Family Nursing Roles | 3 |
| **SP 2018** | **SEMESTER 4** | **8** | **SP 2018** | **SEMESTER 6** | **5** |
| CAC NUR 222 | Nursing in Organizational Transitions | 8 | NAU NUR 450c + 452 | Nursing Leadership (Capstone)Nursing Leadership Application | 32 |

**CEP PROGRAM CURRICULUMS**

**CAC/ASU CEP**

**Central Arizona College and Arizona State University**

**Plan of Study**

**Nursing Concurrent Enrollment Program**

 **Pre-requisite Courses and Plan of Study**

Pre-requisite Courses

Admission: Select GPA 3.0 in courses with \*

|  |  |  |
| --- | --- | --- |
| ENG 101 First Year Composition \* | 3 credits | CAC |
| ENG 102 First Year Composition \* | 3 credits | CAC |
| CHM 130 with Lab Chemistry- not high school chemistry \* | 4 credits | CAC |
| BIO 201 Anatomy and Physiology I \* | 4 credits | CAC |
| BIO 202 Anatomy and Physiology II \* | 4 credits | CAC |
| BIO 205 Microbiology \* | 4 credits | CAC |
| MAT 141 or higher \* | 3 credits | CAC  |
| PSY 101 Introduction to Psychology\*  | 3 credits | CAC |
| MAT 162 or PSY 230 Statistics or SOC 390 | 3 credits | CAC or ASU |
| Humanities Elective  | 3 credits | CAC |
| PE Elective | 1 credit | CAC |
| CNA/LNA licensure |  | CAC or other |
| Total |  35 credits |  |

**POS Fall 2017 start** All pre-requisite courses completed; Select GPA 3.0 in courses with \*above

ASU courses onlinewith students from other Arizona community colleges

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Summer  2017  | Fall 2017 | Spring 2018 | Summer 2018 | Fall 2018 | Spring 2019 | Summer 2019 | Fall 2019 |
|  | Nursing 1 Pharm and Dosages | Nursing 2 Pharm |  | Nursing 3 | Nursing 4  |  |  |
| Statistics |  |  |  |  |  |  |  |
| TWC 361 | NUR 391 | NUR 315 | NUR 392 and NUR 460 | NUR 440 | NUR 495 | NUR 444 | Session A NUR 445 |
| Upper Division 4 credits\* |  |   |  |  | Upper Division 3 credits\* |  | Session B NUR 464 |
|  |  |  |  |  | AAS in Nursing | Take/passNCLEXNew job | BSN |

\*Note: Upper Division 3 credits and 4 credits taken before NUR 464. The 3 and 4 credit upper division courses may be taken when the student wants, but suggestions are in the POS.

**POS Spring 2018 start** All pre-requisite courses completed; Select GPA 3.0 in courses with \*above

ASU courses onlinewith students from other Arizona community colleges

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Fall 2017  | Spring 2018 | Summer 2018 | Fall2018 | Spring 2019 | Summer 2019 | Fall2019 | Spring 2020 |
|  | Nursing 1 Pharm and Dosages |  | Nursing 2Pharm | Nursing 3 | Nursing 4  |  |  |
| Statistics |  |  |  |  |  |  |  |
| TWC 361 | NUR 391 | NUR 392 and NUR 460 | NUR 315 | NUR 440 | NUR 495 | NUR 444 | Session A NUR 445 |
| Upper Division 4 credits\* |  |   |  |  | Upper Division 3 credits\* |  | Session B NUR 464 |
|  |  |  |  |  | AAS in Nursing | Take/passNCLEXNew job | BSN |

\*Note: Upper Division 3 credits and 4 credits taken before NUR 464. The 3 and 4 credit upper division courses may be taken when the student wants, but suggestions are in the POS.

Courses at ASU for BSN

|  |  |  |
| --- | --- | --- |
| TWC 361  | Writing for Health Care Management | 3 credits |
|  NUR 391  | Professional Nursing Theory  | 4 credits |
| NUR 392  | Health Promotion Across the Life Span  | 4 credits |
| NUR 315  | Nursing Research and Application to Practice  | 3 credits |
| NUR 460  | Art of Nursing  | 4 credits  |
| NUR 440  | Community/Public Health Nursing in the United States  | 4 credits |
| NUR 444  | Innovation in Nursing  | 4 credits |
| NUR 445  | Nursing Management in Health Care  | 4 credits |
| NUR 495  | Public and Global Health in Nursing | 4 credits |
| NUR 464 | Capstone: The Synthesis of Professional Nursing  | 4 credits |
| Total  |  | 38 credits |
| Upper Division  | May transfer from a regionally accredited four year higher education institution | 7 credits |
| Grand Total |  | 45 credits |

**APPENDIX K**

**Operational Plans 2014-2017**

Please see Operational Plans Below

2017-2018

2016-2017

2015-2016

-Area: Nursing Academic Year: 2017-2018

Date Submitted: January 17, 2017 Submitted By: Tina Berry, PhD, MSN, MBA, HCM

**GOALS**

1. **Access:** Ensure broad access to high-quality innovative educational programs, services and training opportunities for Pinal County residents.

2. **Student Success:** Improve student retention, persistence, completion and job placement.

3. **Environment:** Ensure a safe, sustainable environment that promotes learning, communication, diversity and satisfaction among students, faculty and staff.

4. **Infrastructure:** Enhance our physical and technological infrastructure to support changes in the learning and work environment.

5. **Partnerships with Universities**: Expand partnerships with universities to provide advanced degrees to Pinal County residents.

6. **Baccalaureate Degrees at CAC:** Obtain approval from the state and regional accreditation body to offer baccalaureate degrees at CAC.

7. **Asset Management:** Optimize fiscal resources that support the needs and expectations of students and the community.

8. **Workforce Development:** Contribute to the economic vitality, workforce development, and job training needs of Pinal County and surrounding regions.

| **Operational Plan Goal** | **Aligns to Which Strategic Goal(s)**  | **Activities Anticipated** | **Measures of Success and Baseline Benchmark** | **Targets** | **12/15/17****Mid-Year****Update** | **6/18****End of Year****Update** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Expand the nursing program in three phases to accommodate at least 15 more students per semester while maintaining the quality of the program at one additional CAC campus location with Phase I beginning SP 18 or before
 | 1, 2, 3, 8 | Propose plan along with flowchart to expand the nursing program in Phases* Phase I: Review demographics for each campus to determine best location for students in nursing
* Determine costs, personnel, classes and faculty needed to expand to 15 additional students in each semester and at one other campus
* Assess Consortium ability to accommodate more students in the clinical site (think outside the box)
* Hire Program Assistant as soon as possible to work with Director on plans to implement goal.
* Take plan to the Arizona Board of Nursing and share with ACEN (accrediting body for approval).
* Phase II: If approved by the AZBN and ACEN, prepare selected campus for classroom and lab facility and schedule additional sections of courses.
* Hire additional faculty (estimation is Fall 18).
* Phase III: Plan additional simulation lab at second campus to be built or space redesign.
* Offer additional programs for nursing based upon demographic needs in the community.
 | 1. Program expansion plan draft completed by March, 2017 and approved by College by May, 2017.
2. Send proposal and plan to Arizona Board of Nursing and ACEN for approval once College approves (estimated August 2017).
3. Hire Program Assistant by July 2017 to work with Director to prepare for additional changes and to handle additional responsibilities that Director cannot do alone.
4. Phase II: Schedule NUR courses and plan simulation and lab experience schedule using SPC simulation area or other designated area at selected campus by Fall 18.
5. Determine necessary capital budget items needed to run additional lab and simulation area and send through budget process SP 2018.
6. Market program expansion.
7. Prepare to begin Phase I implementation by accepting 15 additional students Fall 2018 or SP 19 based upon application interest.
8. Phase III: Overview progress before undertaking expansion of simulation area at additional campus.
 | March 17 – Plan DraftMay 17-Approval by CollegeJune 2017-Approval by AZBNJuly 2017 – Hire Program AssistantFall 2018 implement |  |  |

Unit-Area: Nursing Academic Year: 2016-2017

Date Submitted: December 15, 2015 Submitted By: Tina Berry, PhD, MSN, MBA, HCM

**GOALS**

1. **Access:** Ensure broad access to high-quality innovative educational programs, services and training opportunities for Pinal County residents.

2. **Student Success:** Improve student retention, persistence, completion and job placement.

3. **Environment:** Ensure a safe, sustainable environment that promotes learning, communication, diversity and satisfaction among students, faculty and staff.

4. **Infrastructure:** Enhance our physical and technological infrastructure to support changes in the learning and work environment.

5. **Partnerships with Universities**: Expand partnerships with universities to provide advanced degrees to Pinal County residents.

6. **Baccalaureate Degrees at CAC:** Obtain approval from the state and regional accreditation body to offer baccalaureate degrees at CAC.

7. **Asset Management:** Optimize fiscal resources that support the needs and expectations of students and the community.

8. **Workforce Development:** Contribute to the economic vitality, workforce development, and job training needs of Pinal County and surrounding regions.

| **Operational Plan Goal** | **Aligns to Which Strategic Goal(s)**  | **Activities Anticipated** | **Measures of Success and Baseline Benchmark** | **Targets** | **12/15/16****Mid-Year****Update** | **6/17****End of Year****Update** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Increase the NUR completion rate to 80% by 2017 (graduate within 4 years of admission to program)
 | 2 | 1. Supplemental Instructor (student) in learning center assisting lower performing students
2. Discontinued high stakes exam for math for all blocks except Block I (100%) pass rate for block I math
 | % of nursing students who complete AAS degree within 4 years of admission to programBaseline:2012: 75%2013: 80%Measures of Success:2014: 72% (43/60) \* NMSP 2015: Pending not all graduated Fall 2015: Pending not all graduated\* math high stakes exam eliminated students from program 2013-2014 | 2015: 80%2016: 80%2017: 80% | 2015: 53/53=100% Met | 2016: 51/51=100% Met\* Previously used data was tabulated per excel spreadsheets. The AZBN annual report requests graduation rate information within 4 years of admission. We are now using this data to determine compliance as the nursing program does not allow any student to go above 4 years in the program. It appears as if the data from 2012 and 2013 from the AZBN annual report was 100% and that a new target is in order if this measure is continued. The Nursing Director has made the decision to continue to report the data but not provide any further activities to improve since there is 100% compliance.  |
| 1. Increase the NCLEX 1st time pass rate each year targeting 90% or above for each cohort
 | 2 | 1. Implement HURST NCLEX-RN Review course beginning Fall 2014
2. Monitor curriculum changes in Fall 2015 to determine success
3. Use simulations up to 25% of clinical to improve application of concepts to clinical area
 | % of nursing students in 4th block who graduate and pass the NCLEX-RN on their first attempt2011: 86% Baseline2012: 93% Baseline2013: 84% Baseline | 2014: 90%2015: 90%2016: 90%2017: 90% | 2014: 82.98 Not Met2015: 97.8% Met2016: 86.2% (44/51) Not Met \*\* Root cause analysis: Of the 7 that failed; average # days to take test is 98 days Appears as if the longer a student waits to take test success rate decreases (reasons range from losing content knowledge to financial issues with application fees) | 2017: 1st and 2nd quarter totals 86% for the year. Awaiting completion for 12 students from the last graduating class for the remainder of the year.  |
| 1. Identify and improve the % of CAC nursing students who transfer and earn a BSN Degree in 4 years
 | 5 | 1. CEP Program with NAU
2. CEP Program with ASU

Plan and implement CEP’s SU 2015 and SP 2016 | % of CAC nursing students who transfer and earn a BSN Degree in 4 yearsCollecting Baseline DataFYR 2012: 5/56=8.9%FYR 2013: 1/19=5%FYR 2014: NAFYR 2015: NA | 2014: 10%2015: 12%2016: 15%2017: 20% |  This is a difficult measure – would like to change to monitoring the % of CEP students who graduate from NAU, ASU, and UOP in the future to make data more meaningful. First cohort graduates in SP 18. | The measurement will be changed to:% of students in the CEP program overall% of students who graduate from the CEP program of the CEP students% of students in the CEP program who pass the NCLEX-RN exam on the first try |
| 1. Improve employer satisfaction rate of return from 40% baseline to 60%
 | 7 | 1. Develop new process for Employer Survey
2. Engage employers in process to improve data collection
 | % of employers responding to employee surveyBaseline: 2012: 5/13=38%2013: 3/7=43%Improve number of employer surveys returnedTo 60% | 2014: 60%2015: 60%2016: 60%2017: 60% | 2014: Process not revised2015: 2/18=11% Not MetDifficult data collection measure. Surveys not returned by employers. Still trying to identify the issue – working with clinical agencies to support data collection specifically Banner Casa Grande and Prison. This is an outcome measure for the accreditation body.  | Continue to monitor |
| 1. Improve simulation experience for students by implementing INASCL standards by 2017
 |  | 1. Create simulation policy and procedure to reflect INASCL standards
2. Measure simulation rubric scores for all blocks during pilot in Fall 2015 and SP 2016
3. In SP 2016, have faculty test simulations on each other for experiential reflection of simulation on students
 | Baseline Data:Fall 2015: Rubric Scores PendingSP 2016: Create simulation policy | None marked yet | Data in collection phase and will be completed before End of Year.  | Data Analysis Phase |

NM= Not Met

M=Met

Unit-Area: Nursing Academic Year: 2015-2016

Date Submitted: November 10, 2014 Submitted By: Tina Berry, PhD, MSN, MBA, HCM

**GOALS**

1. **Access:** Ensure broad access to high-quality innovative educational programs, services and training opportunities for Pinal County residents.

2. **Student Success:** Improve student retention, persistence, completion and job placement.

3. **Environment:** Ensure a safe, sustainable environment that promotes learning, communication, diversity and satisfaction among students, faculty and staff.

4. **Infrastructure:** Enhance our physical and technological infrastructure to support changes in the learning and work environment.

5. **Partnerships with Universities**: Expand partnerships with universities to provide advanced degrees to Pinal County residents.

6. **Baccalaureate Degrees at CAC:** Obtain approval from the state and regional accreditation body to offer baccalaureate degrees at CAC.

7. **Asset Management:** Optimize fiscal resources that support the needs and expectations of students and the community.

8. **Workforce Development:** Contribute to the economic vitality, workforce development, and job training needs of Pinal County and surrounding regions.

| **Operational Plan Goal** | **Aligns to Which Strategic Goal(s)**  | **Activities Anticipated** | **Measures of Success and Baseline Benchmark** | **Targets** | **12/15/15****Mid-Year****Update** | **6/16****End of Year****Update** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Increase the NUR completion rate to 80% by 2017 (graduate within 4 years of admission to program)
 | 2 | 1. Supplemental Instructor (student) in learning center assisting lower performing students
2. Discontinued high stakes exam for math for all blocks except Block I (100%) pass rate for block I math
 | % of nursing students who complete AAS degree within 4 years of admission to programBaseline:2012: 75%2013: 80% | 2014: 80%2015: 80%2016: 80%2017: 80% | 2014: 72% (43/60) \* NMSP 2015: PendingFall 2015: Pending \* math high stakes exam eliminated students from program 2013-2014 | 2014: 72% (43/60) NM2015: 92% (55/60) M |
| 1. Increase the NCLEX 1st time pass rate each year targeting 90% or above for each cohort
 | 2 | 1. Implement HURST NCLEX-RN Review course beginning Fall 2014
2. Monitor curriculum changes in Fall 2015 to determine success
3. Use simulations up to 25% of clinical to improve application of concepts to clinical area
 | % of nursing students in 4th block who graduate and pass the NCLEX-RN on their first attempt2011: 86%2012: 93%2013: 84% | 2014: 90%2015: 90%2016: 90%2017: 90% | 2014: 82.98% NM2015: 97.8% M (A) | 2014: 82.98% NM2015: 97.8% M (A)2016: 92% 1st quarter (M)1.

No data yet for curriculum change; available after 5/17.1.

Beginning to work on simulation handbook which defines each block’s simulation use.  |
| 1. Identify and improve the % of CAC nursing students who transfer and earn a BSN Degree in 4 years
 | 5 | 1. CEP Program with NAU
2. CEP Program with ASU

Plan and implement CEP’s SU 2015 and SP 2016 | % of CAC nursing students who transfer and earn a BSN Degree in 4 yearsCollecting Baseline DataFall 2011: 3/32=9%SP 2012: 2/24=8% | 2014: 10%2015: 12%2016: 15%2017: 20% | 2013: 1/9=11%2014: Difficulty obtaining accurate and timely data. | A. CEP Program with NAU began 6/2016 – 1st cohort. 27% of applicants (8/30) in CEP 1st time. B. CEP Program with ASUIn process of getting agreement signed, then to AZ Board of Nursing, then to ACEN (accreditor)Potential date, Fall, 2017 |
| 1. Improve employer satisfaction rate of return from 40% baseline to 60%
 | 7 | 1. Develop new process for Employer Survey
2. Engage employers in process to improve data collection
 | % of employers responding to employee surveyBaseline: 2012: 5/13=38%2013: 3/7=43%Improve number of employer surveys returnedTo 60% | 2014: 60%2015: 60%2016: 60%2017: 60% | 2014: Process not revised2015: Process not revised2016: Process to be revised with improved data collection.  | A. Process pilot SU 16. Face to Face Survey request at employment facilities identified by studentsB. PAC committee employers suggested speaking to managers of facilities to get data.  |

NM= Not Met

M=Met (A) =relates to reason for improvement