

An Online Nurse Aide Certification Course:
Program to Increase E-Learning Access to Health Occupations in Iowa
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Grant partners include the University of Iowa Geriatric Education Center, Iowa Lakes Community College (ILCC), Western Iowa Tech Community College (WITCC), and the Iowa Community College Online Consortium (ICCO). The scope of this project was to develop and implement an online curriculum to meet the requirements of the federally mandated 75-hour nurse aide course and to prepare students for the state certification exam required to work as a certified nurse aide. The core content includes the 35 skills included in Iowa's state curriculum and the competency areas covered in the state competency testing.

Implementation of the project occurred in four phases:

Phase I included the development of the "theory" or didactic portion of the 75-hour nurse aide course and the blending of the 35 hours of "hands-on" skills instruction and practice at the appropriate points. Implementation steps included:

- **Step 1:** Divided the course into six units closely following state-approved nurse aide curriculum outline, with a face-to-face skills lab at the end of each unit, for both a six-week and a twelve-week course.
- **Step 2:** Selected the textbook and specified the chapters to be assigned in each unit.
- **Step 3:** Determined the skills to be tested in each unit.
- **Step 4:** Specified the types of online activities (i.e., threaded discussion, interactive modules and case studies, narrated lectures, and multimedia flashcard exercises) that students would utilize to learn the theory content.
- **Step 5:** Set up the overall course structure, including the activity sequence common to all units, the overall grading structure and assignment weighting, and the rubrics and grading criteria for specific types of assignments.

- **Step 6:** Selected the key content for each unit and the type of activity to cover it.
- **Step 7:** Created the syllabus, course text, and course instructions in the online platform.
- **Step 8:** Developed individual assignments and activities, created multimedia assets, selected skills videos, and constructed unit and final tests.

Phase II addressed the challenge of educating the participating faculty in the community college health occupation programs on the role of e-learning in their college setting and how to use it effectively. Faculty received training needed for using the eCollege system, including the skills of entering and using the different tools associated with eCollege, and attaining effective strategies in online pedagogy.

Phase III resulted in online delivery of the course. With an extremely ambitious one-year schedule for development and demonstration of this course, the project was able to offer the course just once prior to grant end. The online course debuted in July in a six-week format at both of the project's participating community colleges. While summer registration is historically slow, nine students at ILCC and five students at WITCC registered for and successfully completed the online course. During Phase III, the project developed CNA course job aid checklists to aid instructors at the remainder of the community colleges that may wish to use this course. The first checklist detailed instructions for setting up the course. The second checklist detailed activities that the instructor should engage in on a daily or periodic basis while conducting the course. These two checklists together with the eCollege staff support available through the ICCOC will enable the community college instructor to know what and how to do it.

Phase IV collected data on recent state certification exam passage rates for learners who took the online classroom nurse aide course at WITCC and ILCC and evaluated their success as compared to the pass rates of the traditional classroom course.

Iowa Lakes Community College Summary of Nurse Aide State Competency Testing

	Written Exam			Skills Exam		
	N	Mean	Pass Rate	N	Mean	Pass Rate
2003	95	84.1%	95.8%	109	86.9%	94.5%
2004	110	83.1%	96.4%	127	85.9%	95.9%

	Written Exam			Skills Exam		
2005	93	82.9%	98.9%	109	86.4%	93.6%
online	9	84.7%	100%	9	84.8%	88.9%

Western Iowa Tech Community College Summary of Nurse Aide State Competency Testing

	Written Exam			Skills Exam		
	N	Mean	Pass Rate	N	Mean	Pass Rate
2003	100	82.1%	91.0%	93	82.7%	83.9%
2004	134	78.6%	82.1%	125	85.6%	86.5%
2005	131	81.6%	90.8%	121	92.0%	92.3%
online	5	79%	100%	5	80%	76.2%

Note: Only test results from individuals who completed the community college 75-hour course were included in both analyses.

A course evaluation survey developed by the ICCOC yielded information about student satisfaction with the course. On a rating scale of Strongly Agree or Very Satisfied (1) to Strongly Disagree or Very Dissatisfied (4) the following mean responses were received:

1. I would recommend this course to others. (1.3)
2. How satisfied are you with your online education experience? (1.67)
3. How satisfied are you with the preparation you received to use the online learning system? (1.67)
4. This course was organized and structured in a manner that was conducive to learning. (1.67)
5. How satisfied are you with the eCollege learning system? (1.3)
6. I received feedback from the instructor in a timely manner. (1.3)
7. The instructor gave me individual attention. (1.3)
8. I would recommend this instructor to other students. (1)

This project has the potential for a very high level of impact and replicability on many fronts. National demographics on aging, the ability of this mode of learning to address access issues, the widening nursing faculty shortage, the requirement of this course as a prerequisite for enrollment in community college nursing programs, and the federal CNA certification rule requiring state programs to meet federal standards are all factors that make this project ideal to serve as a model for the education of nurse aides across Iowa and the rest of the nation. A concurrent impact of this proposal may be to increase the quality of care provided to the frailest elders by providing a quality standardized program teaching the provision of person-centered care.

During grant development it was anticipated that we would request funding for three years. In year 1 we would develop and implement the course at the two participating community colleges. This was successfully accomplished. In year 2 we anticipated

marketing and extending the course to the six remaining member colleges of the ICCOC. In year 3 we anticipated widening the course implementation to other Iowa community colleges beyond the ICCOC, as well as to four-year nursing programs that require completion of the CNA course as a prerequisite for their nursing programs. It was expected that year 3 would include placement of the course on other technical platforms. With the loss of this source of funding for years 2 and 3, we are still in deliberation on how best to extend this course to other community colleges and four-year colleges.

As a result of numerous discussions with community colleges, four-year colleges, and the nursing home industry, it is suggested that expansion and utilization of this online course could deliver the following benefits:

Student

- Increase accessibility to the curricula necessary for competency testing and skill development, reaching the non-traditional student who has difficulty accessing courses through the traditional classroom setting due to work and childcare schedules.
- Increase accessibility for Iowa's rural students.
- Reduce time and cost associated with travel to community college.
- Offer a unique opportunity for students with little formal educational experience to develop computer skills necessary in today's technical society.

Faculty

- Provide a standardized curriculum that promotes faculty collaboration and increases success and satisfaction.
- Provide an opportunity for faculty to improve pedagogical skills and develop expertise in the use of computer-based instruction.

College

- Allow more efficient use of limited faculty resources by using computers to deliver information and using instructors for live coaching, psychomotor skills, and learning support.

- Possible increase of enrollment as courses are deemed more accessible.
- Increase potential for offering course with lower enrollments.
- As the first online health occupations course offered in Iowa, the courseware may be used as a methodological stepping stone to developing other online health occupations programs that lead to certification or licensure.

Industry

- Increase the number of certified health care professionals.
- Create a more computer-proficient workforce.
- Increase retention of employees due to better training that promotes optimal job performance and job satisfaction.

This report respectfully submitted by the University of Iowa, College of Medicine, Geriatric Education Center.