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**Occupational Projections**

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**Program Assessment Plan**

**Program Assessment Results**

**CRC Recommendations**

**CRC Follow-Up**

**Nursing**
**Major Highlights**
**February 2008**

Overview

The information contained in this binder represents supporting reports and data associated with the CRC's review of the Nursing program. These reports are intended to provide a historical perspective, as well as an idea of current strengths and future challenges facing the program which may impact short and long term curriculum development.

Major Highlights

- Although the composite dashboard score for Nursing has steadily declined over the past four years, the program has consistently maintained a high composite score over this same time period, and at 10.88 in 2006-07, the program ranked the third highest of all 100 curriculum offered at the college.

- Three out of the seven program dashboard measures exceeded the college benchmarks and the remaining four fell within the established benchmarks, which in total has contributed to the high composite score. The measures that exceeded expectations include the percent of completed sections, the percent of minority students, and the student course completion rate.

- Over the past four years the percent of completed sections has been quite consistent and has ranged between 94% and 95%, above the college-wide average of 91%. In terms of student success, the number of students that complete Nursing courses with a grade of "C" or higher has been consistent over the same four-year period, fluctuating between 90% and 92%.

- Meanwhile, the percent of minority students in the program has been steadily increasing over the past four years, and at nearly 39% in 2006-07, is well above the college-wide 28%.

- Between 1996-97 and 2000-01 credit hour enrollment sharply declined. However, since then, enrollment has for the most part increased and in 2005-06, reached a peak of 9,142 credit hours. During the most recent year (2006-07) Nursing was the 18th largest credit hour producing program at 8,877 credit hours.

- Over the past ten years, a total of 1,718 Nursing degrees and certificates have been awarded among the various program options. The largest number of awards are granted in the Nursing Associate Degree program. With an average of 137 degrees per year, Nursing is the 4th highest degree granting program among all degrees awarded within the college.

- The Practical Nurse Education program reached a peak of 19 certificates awarded in 2001-02, but since then has only had one graduate. The Second Year Nursing Completion Option program has averaged 14 associate degrees awarded every other year since 2002-03, ranking it the 14th highest of all degrees in 2006-07. The Nursing program involving the Transitional LPN to ADN Track has declined in the number of degrees awarded since 2002-03, but still experienced 33 degrees for an annual average and ranked the 12th highest in the college in 2006-07. Finally, the Modified Career Ladder PN program has averaged approximately 10 graduates per year over the last ten years and was most recently ranked the 3rd highest of all certificate programs.

- According to Economic Modeling Specialists Inc., there are three primary occupations most closely related to the Nursing programs, which include Registered Nurses, Licensed Practical and License Vocational Nurses, and Nursing Aides, Orderlies, and Attendants. All three occupations are expected to show growth in the next five years, with the largest increase projected with Registered Nurses showing just under 4,000 new jobs in the four-county region of southeast Michigan. Of the three occupations, it also had the largest number of current jobs in the region with over 38,000, and the highest average earnings. Adding all of the projections together for the three occupations brings a grand total of approximately 6,200 new jobs in the region by 2012.

- In terms of program assessment, the Nursing assessment plan has ten unique Learning Outcomes and has a total of 51 Benchmarks, which is in accordance with the guidelines established by the Student Outcomes Assessment Committee. Most of the learning outcomes share the same basic benchmarks and assessment methods, which includes both direct measures of student performance and indirect measures involving surveys.

- Between January 2007 and February 2008, 40 of the 51 benchmarks were assessed (78%) and of those that were assessed, 36 benchmarks were met and the remaining 4 had been assessed with no supporting raw data or determination that showed they had been met. Several of the benchmarks had not been assessed due to the plan including the Mosby Assessment Test, and this test is no longer administered in the program. Additionally, no suggestions of any changes were made with the program as a result of program assessment activities.

# Oakland Community College
# Program Dashboard

The purpose of the program dashboard is to provide a data driven tool designed for the objective review of all curriculum offerings. Based on a common set of measures which apply to all programs/disciplines the dashboard facilitates the systematic identification of well performing as well as ailing curriculum so early intervention efforts can be undertaken.

In a rapidly changing economic and competitive environment it is necessary if not imperative to continually review curriculum offerings annually. Dashboard reports are a useful tool for monitoring program performance. In addition, they allow for an integrated approach for collecting, presenting, and monitoring data to meet long and short-term programmatic decision-making needs.

The Program Dashboard is based on seven measures which include:

- Sections Filled to Capacity
- Percent of Completed Sections
- Credit Hour Trend Ratio
- Percent of Minority Students
- Percent of Withdrawals
- Percent of Incompletes
- Student Course Completion Rate

The following report provides summative information for the most recent academic year as well as detailed trend data on each measure over the past several years.

# Program Dashboard
# Detail Report

**Prefix**  NUR
**Title**   Nursing

| | Program | | | | College Wide |
| --- | --- | --- | --- | --- | --- |
| | **2006-07** | **2005-06** | **2004-05** | **2003-04** | **2006-07** |
| **Sections Filled to Capacity** | 87.7% | 89.9% | 84.9% | 119.8% | 84.4% |
| **Percent of Completed Sections** | 93.5% | 94.6% | 94.9% | 94.8% | 90.7% |
| **Headcount Trend Ratio** | 0.98 | 1.02 | 1.00 | 1.18 | 1.01 |
| **Credit Hour Trend Ratio** | 0.99 | 1.02 | 0.97 | 1.17 | 1.01 |
| **Percent of Minority Students** | 38.5% | 38.1% | 34.5% | 33.7% | 28.2% |
| **Percent of Withdrawals** | 2.7% | 3.1% | 2.8% | 2.8% | 18.3% |
| **Percent of Incompletes** | 1.8% | 1.4% | 1.6% | 3.2% | 1.5% |
| **Student Course Completion Rate** | 91.8% | 90.5% | 91.5% | 89.5% | 67.7% |
| **Dashboard Score** | 10.88 | 10.91 | 10.64 | 11.46 | |

# Sections Filled to Capacity

**Prefix**        NUR

**Prefix Title**   Nursing

|                              | 2006-07 | 2005-06 | 2004-05 | 2003-04 |
|------------------------------|---------|---------|---------|---------|
| **Total Students**           | 2,730   | 2,889   | 2,325   | 2,926   |
| **Total Capacity**           | 3,112   | 3,214   | 2,738   | 2,443   |
| **Sections Filled To Capacity** | 87.7% | 89.9%   | 84.9%   | 119.8%  |

**Definition:**
The percent of all available seats which are filled on the terms official census date. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term.

**Methodology:**
Total number of sections (credit courses only) that are filled to their designated capacity e.g. allocated seats divided by the total number of available seats in all sections throughout the academic year (July 1 through June 30). In other words, how many sections are filled to their capacity on the sections 1/10 day out of all sections? Include sections that are more than filled / overflowing in calculation.

One-Tenth Day data shows the capacity filled numbers at approximately 3 weeks after the Fall and Winter terms begin; and 1 week after the Summer I and II terms begin. This data will not provide additional enrollment data if the sections begin after the one-tenth day.

While a section may only have a few students enrolled in it the college is able to designate some sections as 'full' so that they are not cancelled (per OCCFA Master Agreement). Therefore some disciplines may show low fill capacity rates, and the college never cancelled the sections or condense the students into fewer sections offering the same course.

# Percent of Completed Sections

**Prefix**        NUR

**Prefix Title**    Nursing

|  | 2006-07 | 2005-06 | 2004-05 | 2003-04 |
|---|---|---|---|---|
| **Active Sections** | 115 | 122 | 149 | 127 |
| **Cancelled Sections** | 8 | 7 | 8 | 7 |
| **Total Sections** | 123 | 129 | 157 | 134 |
| **Percent of Completed Sections** | 93.5% | 94.6% | 94.9% | 94.8% |

**Definition:**

Of all offered sections, the percent of sections that are completed (not cancelled). Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: End of session, after grades are posted.

**Methodology:**

Annually, the total number of offered credit sections that are completed. Formula = number of completed credit sections divided by the total number of offered credit sections. In other words, the percent of these sections that are not cancelled.

# Headcount Trend Ratio

**Prefix**      NUR
**Prefix Title**    Nursing

|  | 2006-07 | 2005-06 | 2004-05 | 2003-04 |
|---|---|---|---|---|
| **Headcount Year 1** | 2,926 | 2,796 | 2,418 | 1,693 |
| **Headcount Year 2** | 2,392 | 2,926 | 2,796 | 2,418 |
| **Headcount Year 3** | 2,945 | 2,392 | 2,926 | 2,796 |
| **Headcount Year 4** | 2,752 | 2,945 | 2,392 | 2,926 |
| **Headcount Period 1** | 2,754 | 2,705 | 2,713 | 2,302 |
| **Headcount Period 2** | 2,696 | 2,754 | 2,705 | 2,713 |
| **Headcount Ratio** | 0.98 | 1.02 | 1.00 | 1.18 |

**Definition:**

Trend in student headcount based on a three year rolling average. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term. (Note: this measure is not used in the calculation of the Program Dashboard score since it parallels trends depicted in Credit Hours.)

**Methodology:**

In order to establish a meaningful enrollment statistic which applies to large as well as small disciplines/programs a "ratio" was calculated based on a three year rolling average of student headcount.

The formula used to calculate this measure involves three simple steps:

a. Year 1 + Year 2 + Year 3 / 3 = Period 1
b. Year 2 + Year 3 + Year 4 / 3 = Period 2
c. Period 2 / Period 1 = Ratio

If the ratio is greater than "1" this means there has been an enrollment increase. On the other hand, if the ratio is less than "1" this translates into an enrollment decline. The larger the number the larger the enrollment increase. Likewise, the lower the number the greater the enrollment decline.

# Credit Hour Trend Ratio

**Prefix**      NUR
**Prefix Title**   Nursing

|                       | **2006-07** | **2005-06** | **2004-05** | **2003-04** |
|-----------------------|-------------|-------------|-------------|-------------|
| **Credit Hour Year 1**   | 9,326 | 8,772 | 7,398 | 5,565 |
| **Credit Hour Year 2**   | 6,622 | 9,326 | 8,772 | 7,398 |
| **Credit Hour Year 3**   | 9,350 | 6,622 | 9,326 | 8,772 |
| **Credit Hour Year 4**   | 8,961 | 9,350 | 6,622 | 9,326 |
| **Credit Hour Period 1** | 8,432 | 8,240 | 8,498 | 7,245 |
| **Credit Hour Period 2** | 8,311 | 8,432 | 8,240 | 8,498 |
| **Credit Hour Ratio**    | 0.99  | 1.02  | 0.97  | 1.17  |

**Definition:**

Trend in student credit hours based on a three year rolling average. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term.

**Methodology:**

In order to establish a meaningful enrollment statistic which applies to large as well as small disciplines/programs a "ratio" was calculated based on a three year rolling average of student credit hours.

The formula used to calculate this measure involves three simple steps:

a. Year 1 + Year 2 + Year 3 / 3 = Period 1
b. Year 2 + Year 3 + Year 4 / 3 = Period 2
c. Period 2 / Period 1 = Ratio

If the ratio is greater than "1" this means there has been an enrollment increase. On the other hand, if the ratio is less than "1" this translates into an enrollment decline. The larger the number the larger the enrollment increase. Likewise, the lower the number the greater the enrollment decline.

# Percent of Minority Students

**Prefix**       NUR

**Prefix Title**   Nursing

|                              | **2006-07** | **2005-06** | **2004-05** | **2003-04** |
|------------------------------|-------------|-------------|-------------|-------------|
| **Minority Students**        | 268         | 292         | 257         | 276         |
| **Total Students**           | 697         | 767         | 745         | 819         |
| **Percent of Minority Students** | 38.5%   | 38.1%       | 34.5%       | 33.7%       |

**Definition:**

The percent of students who are minority. Minority status is self-reported by the student and includes: African American, Asian, Hispanic, Native American Indian and Other. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: end of session for each term.

**Methodology:**

Percentages are based on known data and exclude missing information.

# Percent of Withdrawals

**Prefix**       NUR

**Prefix Title**   Nursing

|  | **2006-07** | **2005-06** | **2004-05** | **2003-04** |
|---|---|---|---|---|
| **Total Withdrawals** | 72 | 88 | 64 | 77 |
| **Total Grades** | 2,665 | 2,851 | 2,319 | 2,797 |
| **Percent of Withdrawals** | 2.7% | 3.1% | 2.8% | 2.8% |

**Definition:**

The percent of students who withdraw from their course after the term begins. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: End of session files, after grades are posted.

**Methodology:**

Percent of withdrawals is derived by dividing the total number of student initiated withdrawals by the total number of grades and marks awarded throughout the academic year. The Withdrawal-Passing (WP), and Withdrawal-Failing (WF) are considered Withdrawals (W). Meanwhile, calculations exclude: Audit (AU), Not Attended (N), and Not Reported (NR).

# Percent of Incompletes

**Prefix**          NUR

**Prefix Title**    Nursing

|                          | **2005-06** | **2005-06** | **2004-05** | **2003-04** |
|--------------------------|-------------|-------------|-------------|-------------|
| **Total Incompletes**    | 48          | 41          | 36          | 89          |
| **Total Grades**         | 2,665       | 2,851       | 2,319       | 2,797       |
| **Percent of Incompletes** | 1.8%      | 1.4%        | 1.6%        | 3.2%        |

**Definition:**
The percent of students who receive an incomplete in their course.  Time Frame: Academic Year (Summer II, Fall, Winter, Summer I).  Data Source: End of session files, after grades are posted.

**Methodology:**
Percent of incompletes is derived by dividing the total number of incompletes by the total number of grades and marks awarded throughout the academic year.  The Continuous Progress (CP) grade is considered an Incomplete (I).  Meanwhile, calculations exclude: Audit (AU), Not Attended (N), and Not Reported (NR).

# Student Course Completion Rate

**Prefix**      NUR

**Prefix Title**  Nursing

|                                   | **2006-07** | **2005-06** | **2004-05** | **2003-04** |
|-----------------------------------|-------------|-------------|-------------|-------------|
| **Successful Grades**             | 2,447       | 2,580       | 2,122       | 2,502       |
| **Total Student Grades**          | 2,665       | 2,851       | 2,319       | 2,797       |
| **Student Course Completion Rate**| 91.8%       | 90.5%       | 91.5%       | 89.5%       |

**Definition:**

The percent of students who successfully complete a course with a grade of "C" or higher.  Time Frame: Academic Year (Summer II, Fall, Winter, Summer I).  Data Source: End of session files, after grades are posted.

**Methodology:**

Student success rates are based on end of session data after all grades have been posted.  Data includes grades from the entire academic year (Summer II, Fall, Winter, and Summer I).  The following grades/marks are excluded from the calculation: Audit (AU), Not Attended (N) and Not Reported (NR).
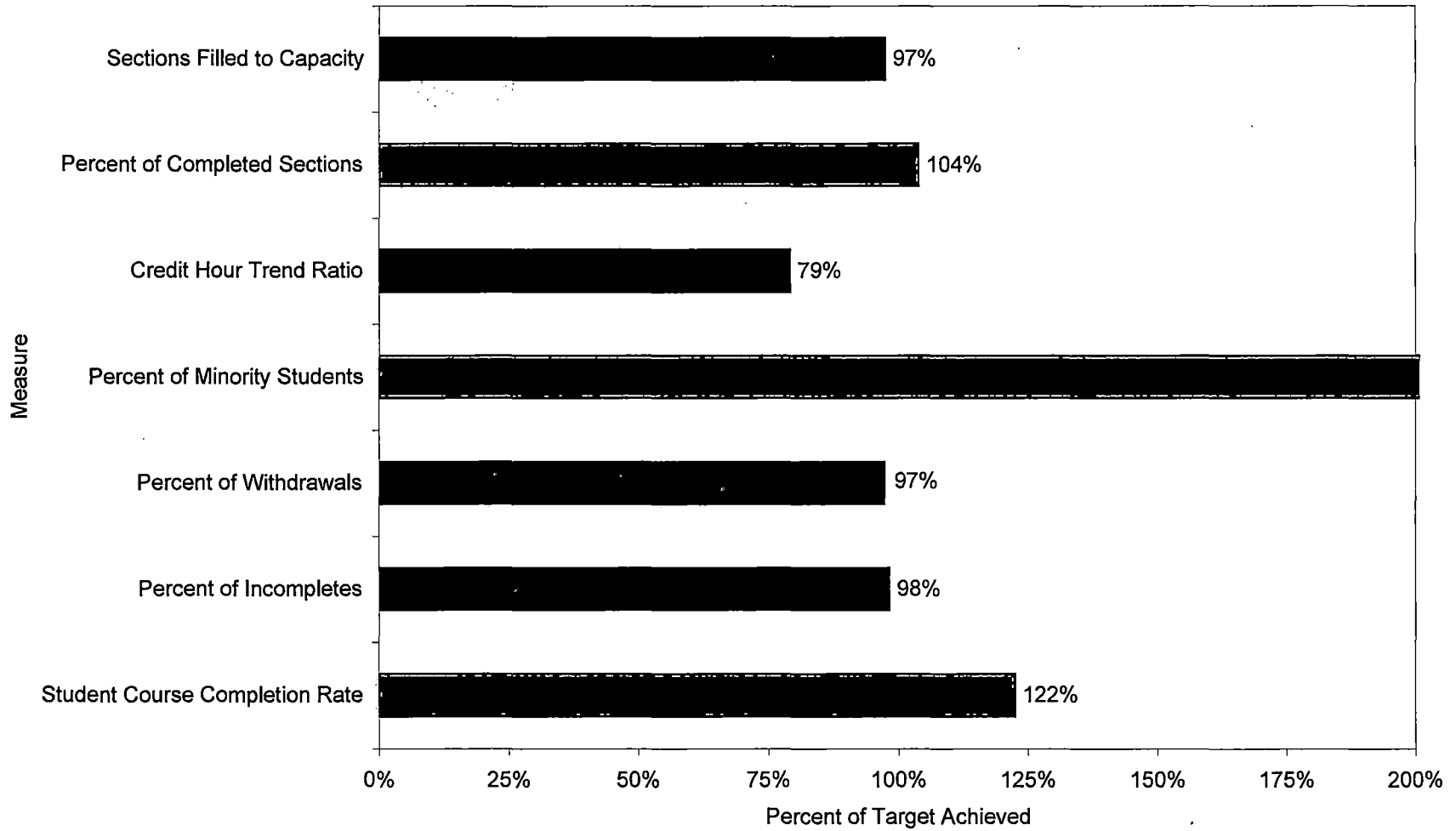
# Oakland Community College
# Program Dashboard
# Percent of Targets Achieved

The following graph and table depict the extent to which each of the seven Program Dashboard measures met established college-wide benchmarks. Benchmarks (targets and trouble scores) are based on historical data and reflect a range within which each measure is expected to perform.

Measures which exceed the established benchmark are depicted in green, while those that fall short of the benchmark are shown in red. This information is useful in identifying areas of excellence, as well as areas of concern. As a consequence, this report can help to identify specific areas which may require additional attention by program staff.

# Oakland Community College
# Program Dashboard Report
# 2006-07

Nursing NUR

| Measure | Percent of Target Achieved |
|---|---|
| Sections Filled to Capacity | 97% |
| Percent of Completed Sections | 104% |
| Credit Hour Trend Ratio | 79% |
| Percent of Minority Students | 200% |
| Percent of Withdrawals | 97% |
| Percent of Incompletes | 98% |
| Student Course Completion Rate | 122% |

Percent of Target Achieved

# Oakland Community College
# Program Dashboard Report
# 2006-07

## Nursing NUR
## Dashboard Score: 10.88

| Measures | Current Score | Benchmarks Trouble Score | Target Score | Percent of Target Achieved | Weight | Weighted Score |
|---|---|---|---|---|---|---|
| Sections Filled to Capacity | 87.7% | 75.0% | 90.0% | 97.4% | 18.0% | 1.75 |
| Percent of Completed Sections | 93.5% | 75.0% | 90.0% | 103.9% | 14.2% | 1.48 |
| Credit Hour Trend Ratio | 0.99 | 0.71 | 1.25 | 79.2% | 15.3% | 1.21 |
| Percent of Minority Students | 38.5% | 16.9% | 18.8% | 204.8% | 6.1% | 1.25 |
| Percent of Withdrawals | 2.7% | 15.0% | 0.0% | 97.3% | 12.0% | 1.17 |
| Percent of Incompletes | 1.8% | 3.0% | 0.0% | 98.2% | 7.9% | 0.78 |
| Student Course Completion Rate | 91.8% | 60.0% | 75.0% | 122.4% | 26.5% | 3.24 |

# Oakland Community College
## Ten-Year Trend in Student Credit Hours
## Nursing
## 1996-97 through 2006-07

| | 1996-97 SCH | 1997-98 SCH | 1998-99 SCH | 1999-00 SCH | 2000-01 SCH | 2001-02 SCH | 2002-03 SCH | 2003-04 SCH | 2004-05 SCH | 2005-06 SCH | 2006-07 SCH | 5-Year % Change | 10-Year % Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nursing | 8,431 | 7,336 | 7,120 | 5,953 | 5,453 | 7,313 | 8,614 | 9,061 | 6,318 | 9,142 | 8,877 | 21.4 | 5.3 |
| College Wide Totals | 443,471 | 431,521 | 440,448 | 438,997 | 453,054 | 447,928 | 478,827 | 468,777 | 472,892 | 487,597 | 493,655 | 10.2 | 11.3 |
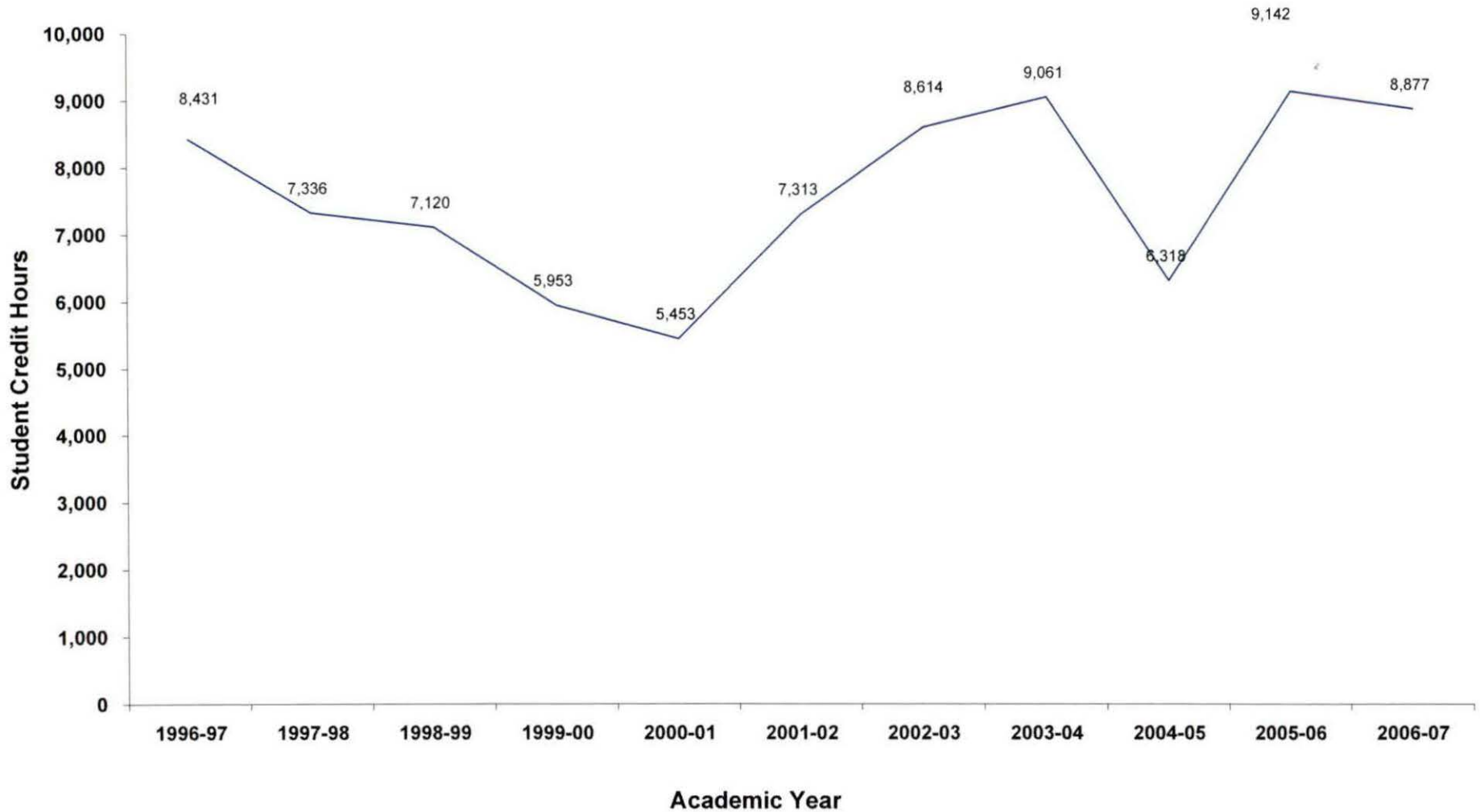
# Oakland Community College
## Associate Degrees and Certificates Awarded
## Nursing
## 1997-98 through 2006-07
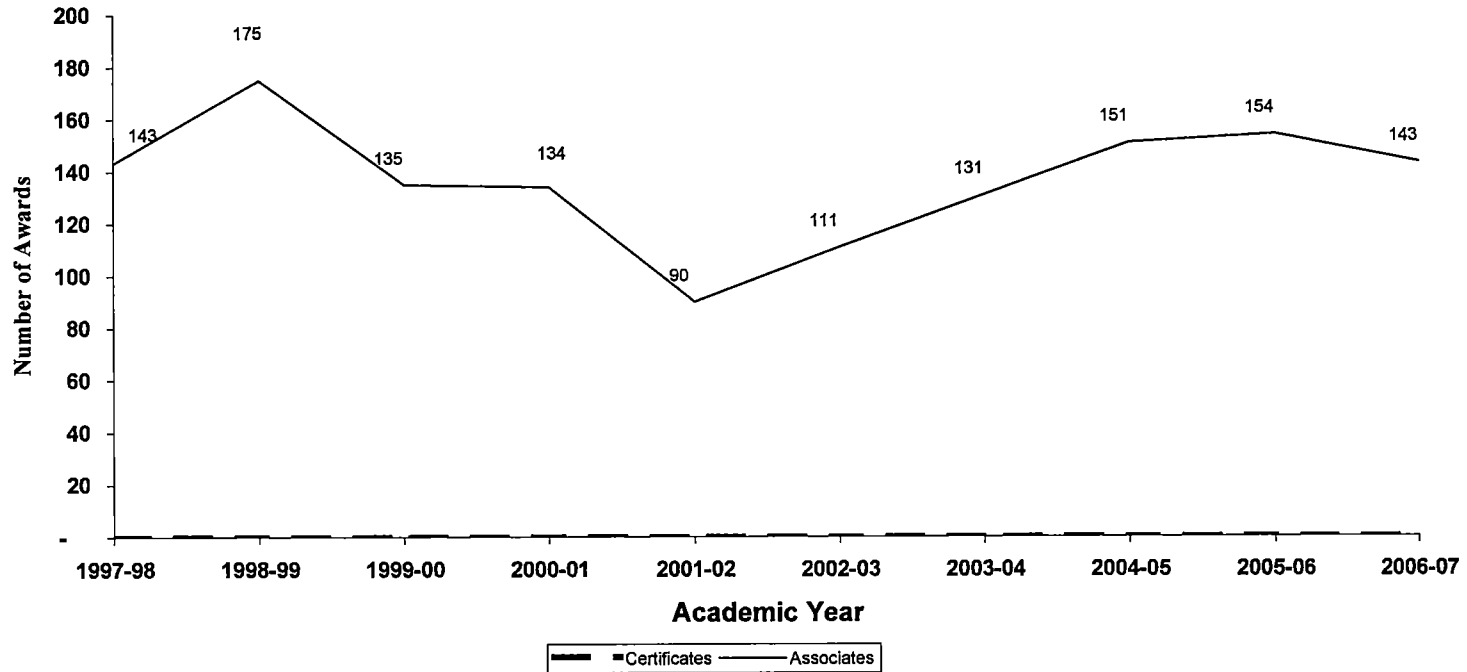


| Academic Yr. | Certificates | Associates |
|---|---|---|
| 1997-98 | 0 | 143 |
| 1998-99 | 0 | 175 |
| 1999-00 | 0 | 135 |
| 2000-01 | 0 | 134 |
| 2001-02 | 0 | 90 |
| 2002-03 | 0 | 111 |
| 2003-04 | 0 | 131 |
| 2004-05 | 0 | 151 |
| 2005-06 | 0 | 154 |
| 2006-07 | 0 | 143 |

2/11/2008

# Oakland Community College
## Associate Degrees and Certificates Awarded
## Practical Nurse Education
## 1997-98 through 2006-07
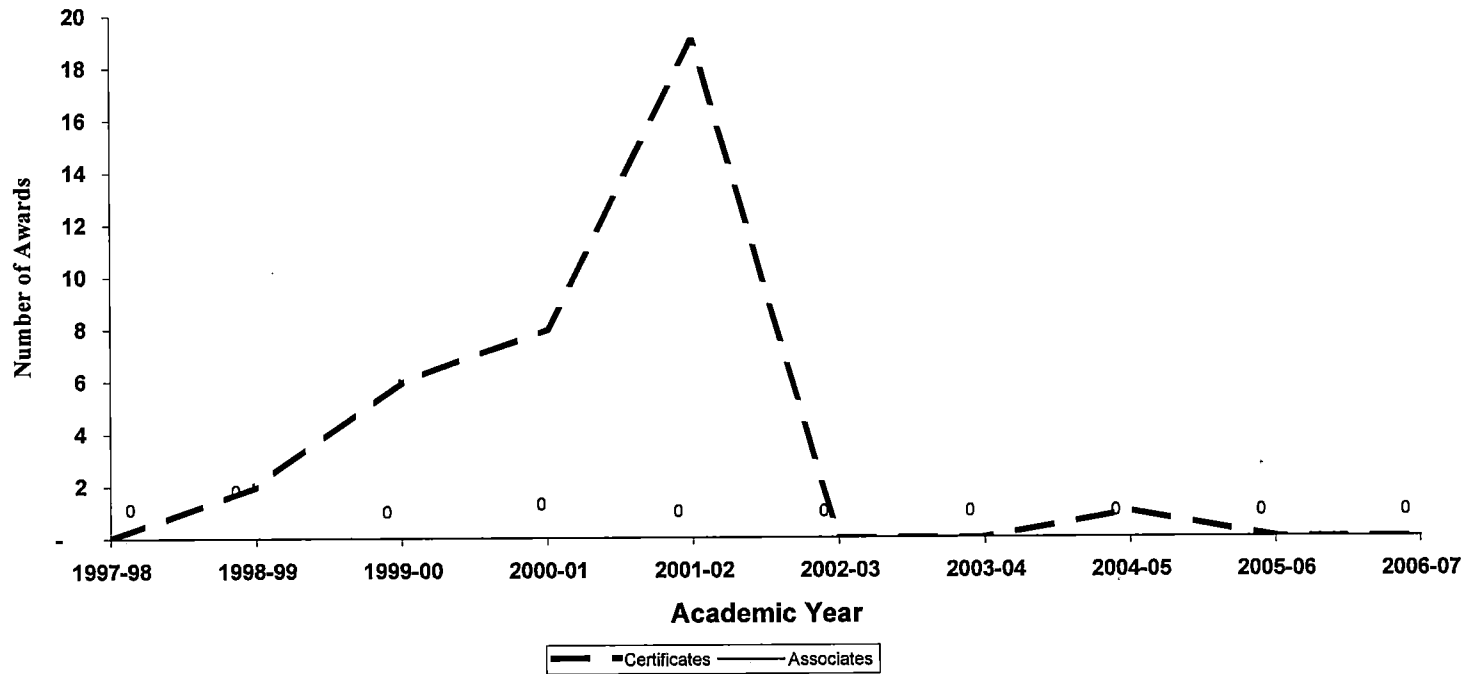


| Academic Yr. | Certificates | Associates |
| --- | --- | --- |
| 1997-98 | 0 | 0 |
| 1998-99 | 2 | 0 |
| 1999-00 | 6 | 0 |
| 2000-01 | 8 | 0 |
| 2001-02 | 19 | 0 |
| 2002-03 | 0 | 0 |
| 2003-04 | 0 | 0 |
| 2004-05 | 1 | 0 |
| 2005-06 | 0 | 0 |
| 2006-07 | 0 | 0 |

2/11/2008

# Oakland Community College
## Associate Degrees and Certificates Awarded
## NUR Nursing 2nd Year Completion
## 1997-98 through 2006-07
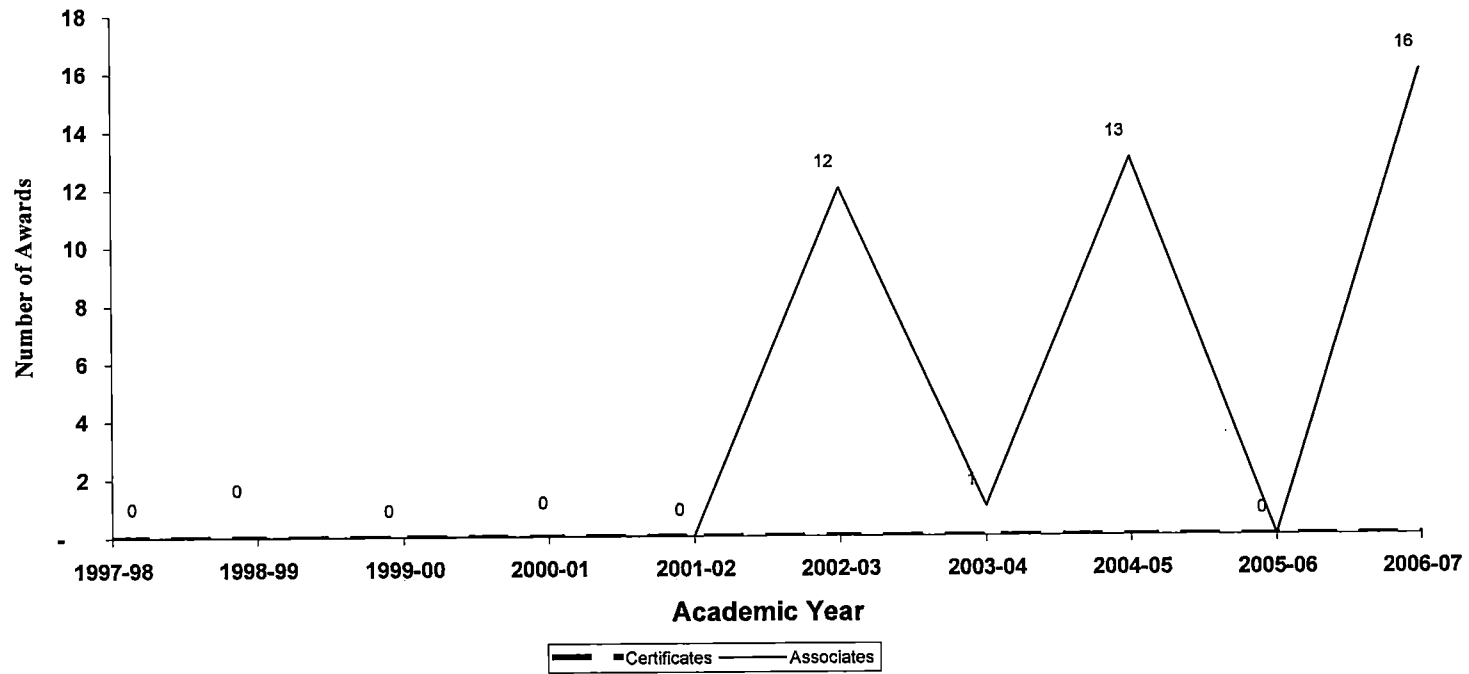


| Academic Yr. | Certificates | Associates |
|---|---|---|
| 1997-98 | 0 | 0 |
| 1998-99 | 0 | 0 |
| 1999-00 | 0 | 0 |
| 2000-01 | 0 | 0 |
| 2001-02 | 0 | 0 |
| 2002-03 | 0 | 12 |
| 2003-04 | 0 | 1 |
| 2004-05 | 0 | 13 |
| 2005-06 | 0 | 0 |
| 2006-07 | 0 | 16 |

2/11/2008

# Oakland Community College
## Associate Degrees and Certificates Awarded
## NUR Transitional LPN
## 1997-98 through 2006-07
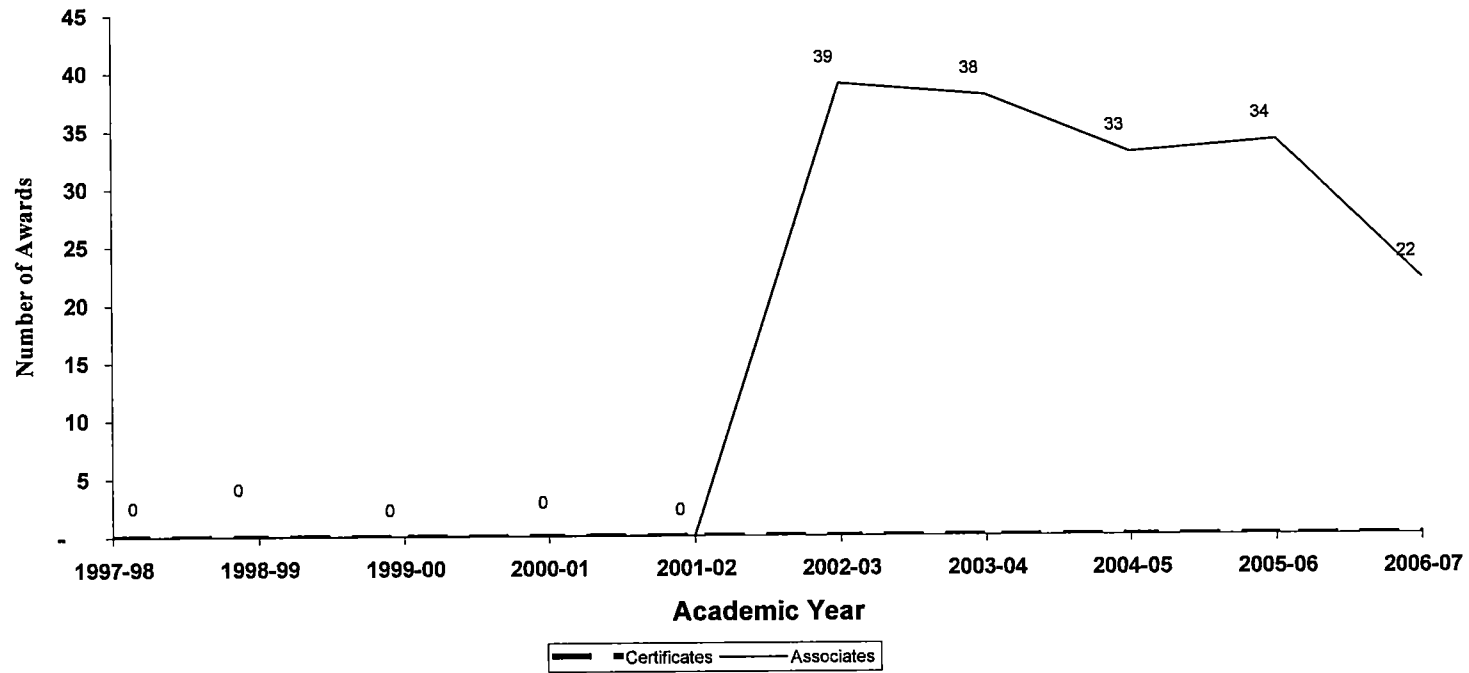


| Academic Yr. | Certificates | Associates |
|---|---|---|
| 1997-98 | 0 | 0 |
| 1998-99 | 0 | 0 |
| 1999-00 | 0 | 0 |
| 2000-01 | 0 | 0 |
| 2001-02 | 0 | 0 |
| 2002-03 | 0 | 39 |
| 2003-04 | 0 | 38 |
| 2004-05 | 0 | 33 |
| 2005-06 | 0 | 34 |
| 2006-07 | 0 | 22 |

# Oakland Community College
## Associate Degrees and Certificates Awarded
## Modified Career Laddered PN Program
## 1997-98 through 2006-07
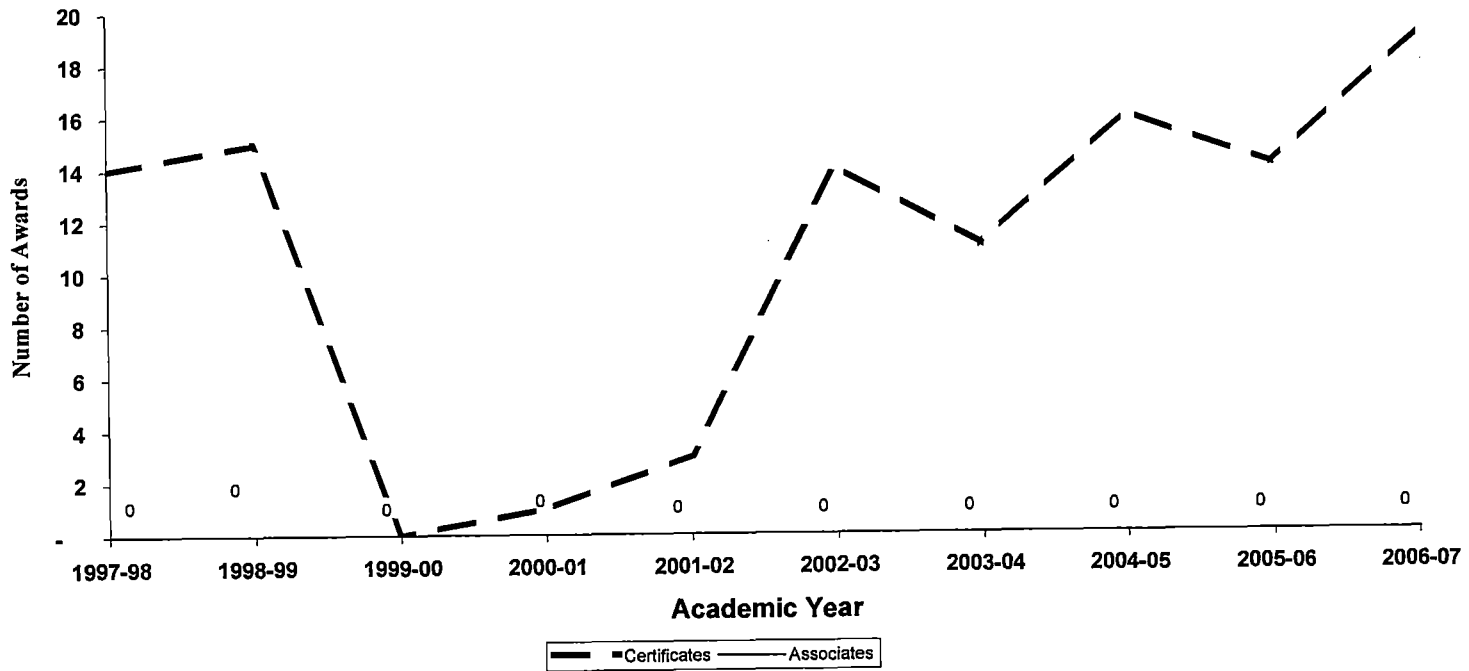


| Academic Yr. | Certificates | Associates |
|---|---|---|
| 1997-98 | 14 | 0 |
| 1998-99 | 15 | 0 |
| 1999-00 | 0 | 0 |
| 2000-01 | 1 | 0 |
| 2001-02 | 3 | 0 |
| 2002-03 | 14 | 0 |
| 2003-04 | 11 | 0 |
| 2004-05 | 16 | 0 |
| 2005-06 | 14 | 0 |
| 2006-07 | 19 | 0 |

2/11/2008

# Occupational Projections
## (2007 – 2012)

The following projections are for those occupations most closely associated with this program based on national and regional sources. However, the extent to which specific OCC programs lead to employment within a given Standard Occupational Code (SOC) is dependent upon the way in which the U.S. Department of Labor groups specific occupations.

Occupational projections are presented at the "Detailed Standard Occupational Code" level as defined by the U.S. Department of Labor.

Although based on sound well tested economic modeling procedures, projections are subject to change based on emerging economic, political and social forces.

These projections reflect the four county region of Oakland, Macomb, Livingston and Wayne counties.

Projections are based on data from 24 major data sources, including the U.S. Department of Commerce, Bureau of Labor Statistics (BLS), Internal Revenue Service (IRS), and Census data. To forecast occupational demand at the county level, BLS data are regionalized and adjusted for emerging technological changes, the age of workers by occupation, and other factors affecting occupational demand.

Occupational forecast data was obtained from CCbenefits Inc. Community College Strategic Planner (CCSP).

## Nursing Related Occupations (2007 - 2012)

| SOC Code | Name | Education | Base | Five Year | Job Change | Ind Mix Effect | Nat Gro Effect | Expct Chng | Compet Effect | Earnings Average | Earnings Median |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 29-1111 | Registered nurses | Associate's degree | 38,294 | 42,252 | 3,959 | 2,951 | 2627 | 5579 | -1620 | $27.89 | $27.14 |
| 29-2061 | Licensed practical and licensed vocational nurses | Postsecondary vocational award | 6,420 | 6,840 | 419 | 167 | 441 | 608 | -188 | $19.44 | $19.56 |
| 31-1012 | Nursing aides, orderlies, and attendants | Postsecondary vocational award | 20,307 | 22,137 | 1,830 | 1,114 | 1393 | 2508 | -678 | $11.48 | $11.18 |
| Totals: | | | 65,021 | 71,229 | 6,208 | | | | | | |

Job Change- Column represents the addition of new jobs due to growth over the projection period.  Indicates how many jobs will be added in the region over the selected time frame.

Industry Mix Effect- Column indicates how many of those jobs are due to movement within the industry at the national level. If the industry is growing across the nation, this is what is expected in the local area.

National Growth Effect- Column shows how the national economy affects the industry or occupation.  This operates on the "rising tide carries all ships" assumption. If the economy is doing well, it is expected that this field in the region would benefit from that effect.

Expected Change- Column combines the Industry Mix Effect column and the National Growth Effect column to indicate how much the field is expected to grow in the region, without the input of variables within the economy.  This is what is expected to happen if the local economy merely followed national trends.

By netting the Expected Change result out of the Job Change result, the Competitive Effect column shows the jobs that have been added in a field in the region due to growth specific to the region. These are the jobs created locally which aren't merely following national trends. A high Competitive Effect number indicates that the region has found some way to foster growth beyond other regions or even perhaps in spite of decline at the national level.

**SOC Code 29-1111**
Name      Registered nurses

Definition
Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records.  Administer nursing care to ill, injured, convalescent, or disabled patients.  May advise patients on health maintenance and disease prevention or provide case management.  Licensing or registration required.  Include advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists.  Advanced practice nursing is practiced by RNs who have specialized formal, post-basic education and ho function in highly autonomous and specialized roles.
Examples: Nursing Supervisor, Nurse Midwife, Nurse Practitioner


**SOC Code 29-2061**
Name      Licensed practical and licensed vocational nurses

Definition
Care for ill, injured, convalescent, or disabled persons in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.
Examples: Licensed Attendant


**SOC Code 31-1012**
Name      Nursing aides, orderlies, and attendants

Definition
Provide basic patient care under direction of nursing staff. Perform duties, such as feed, bathe, dress, groom, or move patients, or change linens.
Exclude "Home Health Aides" (31-1011) and "Psychiatric Aides" (31-1013).
Examples: Certified Nursing Assistant, Hospital Aide, Infirmary Attendant

Source: OCC, Office of Assessment & Effectiveness (CCSP)

# Occupational Skills Analysis

The following report provides detailed information on the knowledge, skills and abilities required for a given occupation. Consideration of these different competencies and levels of attainment while designing and reviewing curriculum will ensure that students enrolled in our programs are adequately prepared for employment.

In particular this report provides:

## Importance of the competency to the occupation (in general terms)

- Not important
- Somewhat important
- Important
- Very important
- Extremely important

## Importance of the competency to the occupation (in specific terms).

- 0 to 20 = not important
- 21 to 40 = somewhat important
- 41 to 60 = important
- 61 to 80 = very important
- 81 to 100 = extremely important

## Level of Attainment in the competency required by the occupation:

- Basic = 0 to 24
- Intermediate = 25 to 49
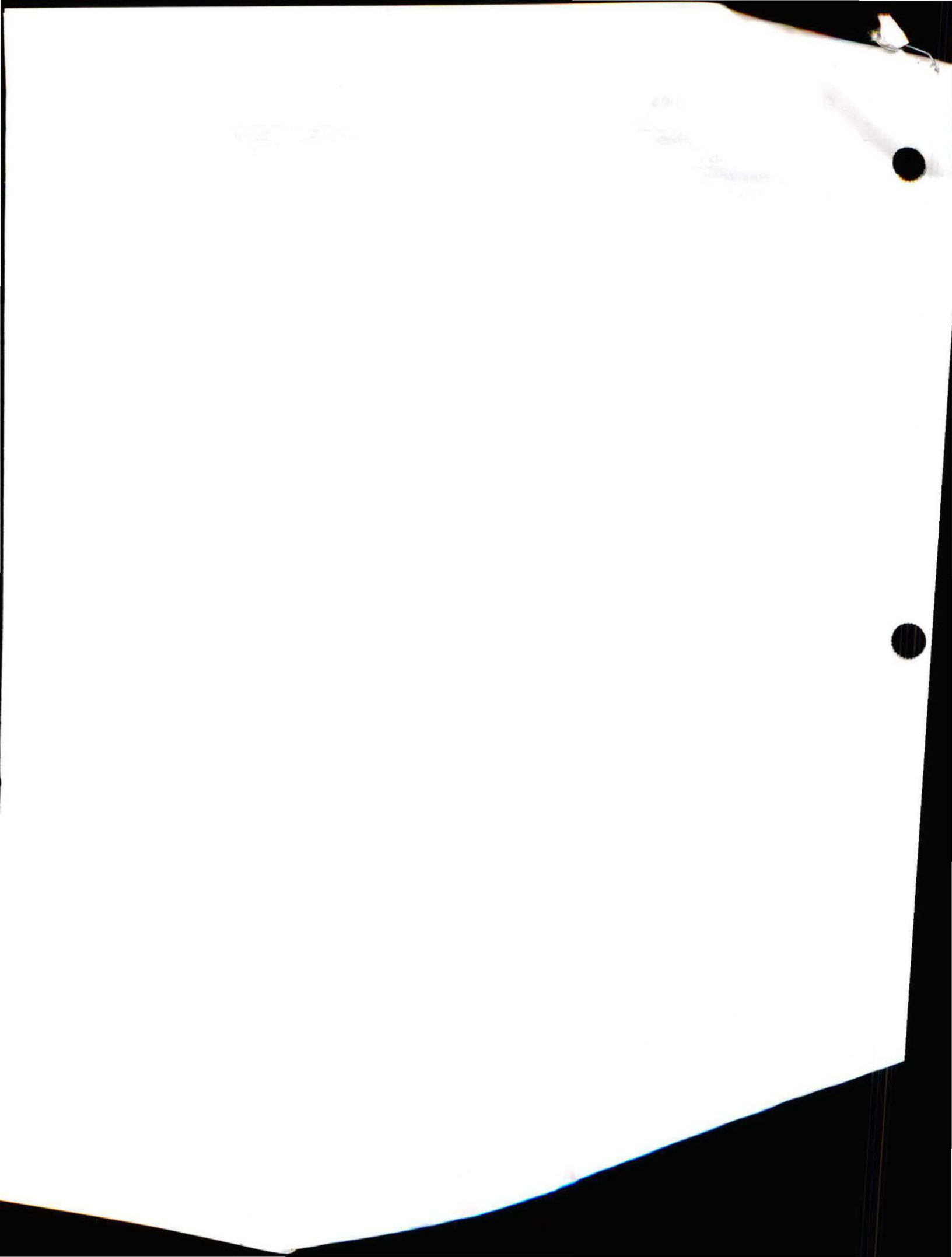- Advanced = 50 to 74
- Expert = 75 to 100

## Occupational Skills Analysis
## Registered Nurses (29-1111)

Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists. Advanced practice nursing is practiced by RNs who have specialized formal, post-basic education and who function in highly autonomous and specialized roles.

## Occupational Knowledge

| Knowledge | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Psychology | Very Important | 80 | Expert | 79 |
| Customer and Personal Service | Very Important | 79 | Expert | 77 |
| Medicine and Dentistry | Very Important | 86 | Advanced | 65 |
| Therapy and Counseling | Important | 61 | Advanced | 56 |
| English Language | Important | 65 | Advanced | 56 |
| Education and Training | Important | 59 | Advanced | 53 |
| Biology | Important | 62 | Advanced | 52 |
| Sociology and Anthropology | Important | 54 | Advanced | 50 |
| Mathematics | Important | 60 | Advanced | 50 |
| Chemistry | Somewhat Important | 48 | Intermediate | 47 |
| Philosophy and Theology | Somewhat Important | 43 | Intermediate | 46 |
| Law and Government | Somewhat Important | 43 | Intermediate | 39 |
| Public Safety and Security | Somewhat Important | 48 | Intermediate | 36 |
| Computers and Electronics | Somewhat Important | 35 | Intermediate | 36 |
| Personnel and Human Resources | Somewhat Important | 36 | Intermediate | 34 |
| Clerical | Somewhat Important | 33 | Intermediate | 33 |
| Administration and Management | Somewhat Important | 35 | Intermediate | 32 |
| Communications and Media | Somewhat Important | 31 | Intermediate | 28 |
| Mechanical | Somewhat Important | 27 | Intermediate | 26 |
| Physics | Somewhat Important | 25 | Basic | 22 |
| Foreign Language | Not Important | 22 | Basic | 20 |
| Telecommunications | Somewhat Important | 25 | Basic | 18 |
| Production and Processing | Not Important | 18 | Basic | 17 |
| Transportation | Not Important | 18 | Basic | 17 |
| Engineering and Technology | Not Important | 15 | Basic | 16 |
| Sales and Marketing | Not Important | 16 | Basic | 14 |
| Design | Not Important | 9 | Basic | 12 |
| Geography | Not Important | 11 | Basic | 11 |
| Economics and Accounting | Not Important | 14 | Basic | 10 |
| History and Archeology | Not Important | 8 | Basic | 9 |
| Food Production | Not Important | 7 | Basic | 7 |
| Fine Arts | Not Important | 3 | Basic | 4 |
| Building and Construction | Not Important | 3 | Basic | 2 |

Source: O*NET Database 11

## Occupational Skills

| Skill | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Social Perceptiveness | Very Important | 77 | Expert | 78 |
| Reading Comprehension | Very Important | 85 | Expert | 77 |
| Critical Thinking | Very Important | 82 | Expert | 75 |
| Active Listening | Very Important | 90 | Advanced | 73 |
| Time Management | Very Important | 80 | Advanced | 73 |
| Monitoring | Very Important | 77 | Advanced | 72 |
| Active Learning | Very Important | 75 | Advanced | 72 |
| Coordination | Very Important | 75 | Advanced | 72 |
| Service Orientation | Very Important | 79 | Advanced | 72 |
| Learning Strategies | Important | 70 | Advanced | 71 |
| Instructing | Very Important | 82 | Advanced | 71 |
| Speaking | Very Important | 81 | Advanced | 70 |
| Writing | Very Important | 76 | Advanced | 68 |
| Judgment and Decision Making | Important | 72 | Advanced | 66 |
| Complex Problem Solving | Important | 64 | Advanced | 60 |
| Persuasion | Important | 56 | Advanced | 58 |
| Mathematics | Important | 64 | Advanced | 57 |
| Science | Important | 70 | Advanced | 55 |
| Negotiation | Important | 55 | Advanced | 55 |
| Equipment Selection | Important | 54 | Advanced | 53 |
| Operation Monitoring | Important | 54 | Intermediate | 48 |
| Management of Personnel Resources | Important | 50 | Intermediate | 47 |
| Troubleshooting | Somewhat Important | 48 | Intermediate | 41 |
| Operations Analysis | Somewhat Important | 32 | Intermediate | 37 |
| Systems Evaluation | Somewhat Important | 32 | Intermediate | 37 |
| Technology Design | Somewhat Important | 36 | Intermediate | 35 |
| Quality Control Analysis | Somewhat Important | 39 | Intermediate | 35 |
| Operation and Control | Somewhat Important | 32 | Intermediate | 33 |
| Systems Analysis | Somewhat Important | 31 | Intermediate | 31 |
| Equipment Maintenance | Somewhat Important | 25 | Intermediate | 26 |
| Management of Material Resources | Somewhat Important | 31 | Intermediate | 26 |
| Management of Financial Resources | Not Important | 16 | Basic | 14 |
| Installation | Not Important | 13 | Basic | 13 |
| Repairing | Not Important | 9 | Basic | 10 |
| Programming | Not Important | 7 | Basic | 7 |

Source: O*NET Database 11

Provide basic patient care under direction of nursing staff. Perform duties, such as feed, bathe, dress, groom, or move patients, or change linens.

## Occupational Knowledge

| Knowledge | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Customer and Personal Service | Important | 67 | Advanced | 64 |
| Psychology | Somewhat Important | 41 | Advanced | 57 |
| English Language | Important | 59 | Intermediate | 49 |
| Education and Training | Important | 57 | Intermediate | 45 |
| Medicine and Dentistry | Important | 50 | Intermediate | 40 |
| Chemistry | Somewhat Important | 39 | Intermediate | 31 |
| Computers and Electronics | Not Important | 22 | Intermediate | 29 |
| Law and Government | Somewhat Important | 29 | Intermediate | 28 |
| Communications and Media | Not Important | 24 | Intermediate | 27 |
| Public Safety and Security | Somewhat Important | 44 | Intermediate | 27 |
| Transportation | Somewhat Important | 32 | Intermediate | 26 |
| Therapy and Counseling | Not Important | 24 | Intermediate | 26 |
| Clerical | Somewhat Important | 41 | Basic | 24 |
| Foreign Language | Somewhat Important | 26 | Basic | 22 |
| Personnel and Human Resources | Not Important | 22 | Basic | 21 |
| Administration and Management | Somewhat Important | 39 | Basic | 21 |
| Biology | Somewhat Important | 35 | Basic | 20 |
| Mathematics | Not Important | 22 | Basic | 18 |
| Telecommunications | Somewhat Important | 30 | Basic | 18 |
| Sociology and Anthropology | Not Important | 16 | Basic | 18 |
| Engineering and Technology | Not Important | 20 | Basic | 17 |
| History and Archeology | Not Important | 15 | Basic | 16 |
| Philosophy and Theology | Not Important | 10 | Basic | 16 |
| Food Production | Not Important | 16 | Basic | 16 |
| Production and Processing | Not Important | 18 | Basic | 15 |
| Design | Not Important | 13 | Basic | 15 |
| Mechanical | Somewhat Important | 34 | Basic | 15 |
| Physics | Somewhat Important | 30 | Basic | 15 |
| Geography | Not Important | 9 | Basic | 13 |
| Building and Construction | Not Important | 17 | Basic | 12 |
| Sales and Marketing | Not Important | 20 | Basic | 12 |
| Economics and Accounting | Not Important | 16 | Basic | 9 |
| Fine Arts | Not Important | 2 | Basic | 2 |

Source: O*NET Database 11

## Occupational Skills

| Skill | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Social Perceptiveness | Important | 66 | Advanced | 71 |
| Time Management | Important | 73 | Advanced | 65 |
| Monitoring | Important | 69 | Advanced | 63 |
| Instructing | Very Important | 76 | Advanced | 62 |
| Critical Thinking | Important | 62 | Advanced | 60 |
| Coordination | Important | 73 | Advanced | 59 |
| Speaking | Very Important | 76 | Advanced | 59 |
| Reading Comprehension | Important | 62 | Advanced | 58 |
| Service Orientation | Important | 71 | Advanced | 56 |
| Learning Strategies | Important | 50 | Advanced | 53 |
| Active Learning | Important | 59 | Advanced | 53 |
| Active Listening | Very Important | 80 | Advanced | 53 |
| Judgment and Decision Making | Important | 61 | Advanced | 51 |
| Equipment Selection | Somewhat Important | 46 | Advanced | 50 |
| Operation Monitoring | Somewhat Important | 49 | Intermediate | 48 |
| Persuasion | Important | 54 | Intermediate | 46 |
| Writing | Important | 62 | Intermediate | 46 |
| Troubleshooting | Somewhat Important | 43 | Intermediate | 42 |
| Systems Evaluation | Somewhat Important | 38 | Intermediate | 40 |
| Operation and Control | Somewhat Important | 43 | Intermediate | 38 |
| Mathematics | Somewhat Important | 38 | Intermediate | 38 |
| Technology Design | Somewhat Important | 34 | Intermediate | 38 |
| Complex Problem Solving | Important | 50 | Intermediate | 37 |
| Management of Personnel Resources | Somewhat Important | 40 | Intermediate | 36 |
| Science | Somewhat Important | 33 | Intermediate | 35 |
| Negotiation | Somewhat Important | 45 | Intermediate | 35 |
| Systems Analysis | Somewhat Important | 38 | Intermediate | 32 |
| Quality Control Analysis | Somewhat Important | 36 | Intermediate | 32 |
| Management of Material Resources | Somewhat Important | 35 | Intermediate | 31 |
| Operations Analysis | Not Important | 22 | Intermediate | 27 |
| Management of Financial Resources | Not Important | 23 | Intermediate | 27 |
| Installation | Not Important | 21 | Intermediate | 26 |
| Equipment Maintenance | Not Important | 24 | Basic | 22 |
| Repairing | Not Important | 17 | Basic | 16 |
| Programming | Not Important | 10 | Basic | 9 |

Source: O*NET Database 11

## Occupational Abilities

| Ability | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Oral Comprehension | Very Important | 78 | Advanced | 64 |
| Oral Expression | Important | 72 | Advanced | 63 |
| Speech Recognition | Important | 69 | Advanced | 59 |
| Problem Sensitivity | Very Important | 81 | Advanced | 57 |
| Near Vision | Important | 69 | Advanced | 57 |
| Written Comprehension | Important | 66 | Advanced | 55 |
| Static Strength | Important | 66 | Advanced | 54 |
| Arm-Hand Steadiness | Important | 63 | Advanced | 54 |
| Extent Flexibility | Important | 60 | Advanced | 52 |
| Selective Attention | Important | 56 | Advanced | 50 |
| Category Flexibility | Somewhat Important | 47 | Advanced | 50 |
| Inductive Reasoning | Important | 63 | Intermediate | 48 |
| Flexibility of Closure | Important | 56 | Intermediate | 48 |
| Deductive Reasoning | Important | 63 | Intermediate | 46 |
| Speed of Closure | Somewhat Important | 47 | Intermediate | 46 |
| Information Ordering | Important | 60 | Intermediate | 46 |
| Perceptual Speed | Important | 50 | Intermediate | 46 |
| Finger Dexterity | Important | 50 | Intermediate | 46 |
| Speech Clarity | Important | 69 | Intermediate | 45 |
| Trunk Strength | Important | 63 | Intermediate | 45 |
| Reaction Time | Somewhat Important | 44 | Intermediate | 43 |
| Written Expression | Important | 50 | Intermediate | 43 |
| Multilimb Coordination | Somewhat Important | 47 | Intermediate | 41 |
| Time Sharing | Somewhat Important | 47 | Intermediate | 41 |
| Far Vision | Important | 50 | Intermediate | 41 |
| Visual Color Discrimination | Somewhat Important | 47 | Intermediate | 41 |
| Visualization | Somewhat Important | 41 | Intermediate | 39 |
| Memorization | Somewhat Important | 41 | Intermediate | 39 |
| Auditory Attention | Somewhat Important | 44 | Intermediate | 38 |
| Gross Body Coordination | Important | 50 | Intermediate | 36 |
| Depth Perception | Somewhat Important | 35 | Intermediate | 36 |
| Manual Dexterity | Important | 53 | Intermediate | 36 |
| Originality | Somewhat Important | 41 | Intermediate | 34 |
| Response Orientation | Somewhat Important | 41 | Intermediate | 34 |
| Hearing Sensitivity | Important | 50 | Intermediate | 34 |
| Fluency of Ideas | Somewhat Important | 38 | Intermediate | 34 |
| Number Facility | Somewhat Important | 38 | Intermediate | 32 |
| Dynamic Strength | Somewhat Important | 41 | Intermediate | 32 |
| Stamina | Important | 50 | Intermediate | 32 |
| Control Precision | Somewhat Important | 28 | Intermediate | 29 |
| Speed of Limb Movement | Somewhat Important | 25 | Intermediate | 27 |
| Explosive Strength | Not Important | 19 | Intermediate | 25 |
| Gross Body Equilibrium | Somewhat Important | 31 | Basic | 23 |
| Mathematical Reasoning | Somewhat Important | 28 | Basic | 21 |
| Spatial Orientation | Not Important | 19 | Basic | 20 |
| Sound Localization | Not Important | 16 | Basic | 16 |
| Peripheral Vision | Not Important | 19 | Basic | 14 |
| Wrist-Finger Speed | Not Important | 19 | Basic | 13 |
| Dynamic Flexibility | Not Important | 16 | Basic | 7 |
| Rate Control | Not Important | 13 | Basic | 7 |
| Night Vision | Not Important | 9 | Basic | 7 |
| Glare Sensitivity | Not Important | 3 | Basic | 2 |

Source: O*NET Database 11

# Program Assessment Plan

## Nursing

### Statement of Purpose

The Associate Degree Nursing Program provides quality learning opportunities that prepare the graduates to provide direct nursing care at a beginning staff level in a variety of healthcare settings, to write The National Council Licensure Examination for Registered Nurses (NCLEX-RN) and to view learning as a life long process.

### Catalog Description

The Associate Degree Nursing (ADN ) curriculum is a 72 credit-hour program that leads to an Associate in Applied Science Degree and prepares the graduates to provide direct nursing care at a beginning staff level in a variety of health care settings. Successful completion of the program
requirements qualifies the students to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN ). Satisfactory
achievement on this examination qualifies the graduates for licensure as Registered Nurses (RN s). Anyone who has been convicted of a felony may not be eligible for licensure. The course of study combines general education in the humanities and the biological, behavioral and social sciences with instruction in the theory and practice of nursing. Students must first be admitted to the college and must designate nursing (NUR) as their curriculum. Registration in the nursing courses is possible only after the student is admitted to the nursing program through a selection process based on a system of priorities. Basic admission requirements include:
• High school graduation or GED
• One year of high school (or equivalent) chemistry, algebra and biology with an average of 2.0 or better grade point in each
• A 90% or better on the Arithmetic Proficiency Examination
• Completion of BIO 1570 (or BIO 2710), BIO 2630 and BIO 2640 with 2.0 or better grade point within five years of the start of the fall nursing courses. The five-year period dates from the session during which the course was taken and closes at the first session in which the student is enrolled in the nursing program.
• Attendance at a nursing information session.
The Nursing Program is designed as a full-time study. However, students may elect part-time study by completing the majority of the required supportive and general education courses prior to selection.

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Integrate knowledge synthesized from nursing, the humanities, and the biological, behavioral and social sciences to meet the needs of adult clients.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing. | The Dean of Nursing and the Nursing Faculty will review the results reported quarterly to the Dean via a summary report from the National Council of Nursing. The reports identifies the average passing percent in the state and nation for ADN nursing programs. | 05/2008 |
| **2.** 85% of the responding graduates surveyed will rate this program goal as satisfactory or higher. | The graduate survey developed by the Department of Nursing with the assistance of the OCC Institute of Research will be sent to graduates 18 months following graduation. The results will compile the scores (rating of 1-5, 5 being the highest) and analysis from the graduates on their ability to integrate knowledge from nursing, the humanities and the biological, behavioral and social sciences to meet the needs of adult clients. | 08/2008 |
| **3.** 85% of the responding employers/advisory committee surveyed will rate this program goal as satisfactory or higher. | Employer survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be conducted biannually. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' ability to integrate knowledge from nursing, the humanities and the biological and social sciences to meet the needs of adult clients. | 08/2008 |
| **4.** 60% of the students will receive a score on the Mosby Assess Test indicating a predicted passage rate on the | Mosby Assess Test administered in the final course of the nursing program. The Mosby Assess Test is a | 05/2008 |

# Program Assessment Plan
## Nursing

NCLEX.

computer scored, multiple choice examination designed to test essential nursing knowledge and evaluate the ability to apply that knowledge to various clinical situations. The test concentrates of clients needs and covers nursing content equally in the core clinical areas. The questions have been field tested to ensure quality and validity of the questions. The questions reflect the latest knowledge, activities, procedures, medications, nursing diagnoses and terminology encountered by the entry level nurse.

**5.** 90% of the students will write nursing care plans (NCP) and papers at or higher than 75%.

Portfolio: NCP and term papers. A sample of 10 student portfolios will be reviewed by a committee of nursing faculty for the development of nursing care plans and term papers evaluated at a 75% or higher using the developed Nursing Care Plan grading tool and term paper grading tool.

05/2008

# Program Assessment Plan
## Nursing

**Learning Outcomes**

(Note: Repeated)  Integrate knowledge synthesized from nursing, the humanities, and the biological, behavioral and social sciences to meet the needs of adult clients.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%. | Course Summaries.  Course coordinators report via the Course Summary Report the percentage of students completing the course (theory and clinical component) at 75% or higher. | 09/2008 |
| **2.** | | |
| **3.** | | |
| **4.** | | |
| **5.** | | |

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Use the nursing process in providing individualized care for clients at various points along the continuum and across the life span in a variety of clinical settings.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing. | NCLEX Test Results. The Dean of Nursing and the Nursing Faculty will review the results reported quarterly to the Dean via a summary from the National Council of Nursing. | 05/2008 |
| **2.** 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to graduates 18 months following graduation. The report will compile the scores (rating of 1-5) 5 being the highest) and analysis from the graduates on their ability to utilize the nursing process in providing individualized care for clients. | 08/2008 |
| **3.** 85% of the responding employers/advisory committee surveyed will rate this program goal as satisfactory or higher. | Employer Survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be conducted biannually. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis of the graduates' ability to utilize the nursing process in providing individualized care for clients. | 08/2008 |
| **4.** 60% of the students will receive a score on the Mosby Assess Test indicating a predicted passage rate on NCLEX. | Mosby Assess Test. The Mosby Assess Test is a computer scored, multiple choice examination designed to test essential nursing knowledge and evaluate the ability to apply that knowledge to various clinical | 05/2008 |

# Program Assessment Plan
## Nursing

situations. The test concentrates of clients needs and covers nursing content equally in the core clinical areas. The questions
have been field tested to ensure quality and validity of the questions. The questions reflect the latest knowledge, activities, procedures, medications, nursing diagnoses and terminology encountered by the entry level nurse.

**5.** 90% of the students will design nursing care plans and papers at or higher than 75%.

Portfolio: NCP and term papers.  A sample of 10 student portfolios will be reviewed by a committee of nursing faculty for development of nursing care plan evaluated at a 75% or higher utilizing the developed Nursing Care Plan Grading Tool.

05/2008

# Program Assessment Plan
## Nursing

**Learning Outcomes**

(Note: Repeated)  Use the nursing process in providing individualized care for clients at various points along the continuum and across the life span in a variety of clinical settings.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| 1. 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%. | Course Summaries.  Each course coordinator will report via the Course Summary Report the percentage of students completing the course at 75% or higher. | 09/2008 |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Utilize critical judgment and critical thinking in the practice of nursing.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| 1. 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing. | NCLEX Test Results. The Dean of Nursing and the Nursing Faculty will review the results reported quarterly to the Dean via a summary report from the National Council of Nursing. | 05/2008 |
| 2. 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to graduates 18 months following graduation. The report will compile the scores (ratings 1-5, 5 being the highest) and analysis from the graduates on their ability to use critical judgment and to critically think in nursing practice. | 08/2008 |
| 3. 85% of the responding employers/advisory committee surveyed will rate this program goal as satisfactory or higher. | Employer survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be conducted biannually. The results will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' ability to use critical judgment and critical thinking in nursing practice. | 08/2008 |
| 4. 60% of the student will receive a score on the Mosby Assess Test indicating a predicted passage rate on NCLEX. | Mosby Assess Test (N2540). The Mosby Assess Test is a computer scored, multiple choice examination designed to test essential nursing knowledge and evaluate the ability to apply that knowledge to various | 05/2008 |

# Program Assessment Plan

## Nursing

clinical situations. The test concentrates of clients needs and covers nursing content equally in the core clinical areas. The questions have been field tested to ensure quality and validity of the questions. The questions reflect the latest knowledge, activities, procedures, medications, nursing diagnoses and terminology encountered by the
entry level nurse.

5.  90% of the students will write nursing care plans (NCP) and papers at or higher than 75%.

Portfolio: NCP and term papers.  A sample of 10 student portfolios will be reviewed  by a committee of nursing faculty for the development of nursing care plans and term papers evaluated at 75% or higher using the develop grading criteria tools.

05/2008

# Program Assessment Plan
## Nursing

**Learning Outcomes**

(Note: Repeated)  Utilize critical judgment and critical thinking in the practice of nursing.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%. | Course Summaries.  Each course coordinator will report via the Course Summary Report the percentage of students completing the course at 75% or higher. | 09/2008 |
| **2.** | | |
| **3.** | | |
| **4.** | | |
| **5.** | | |

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Utilize principles of caring in the practice of nursing.

| | Benchmark | Assessment Method | Timeline |
|---|---|---|---|
| 1. | 85% of the responding employers/advisory committee members surveyed will rate this program goal satisfactory or higher. | Employer Survey. The employer survey developed by the department of Nursing with the assistance of the OCC Office of Institutional Research will be conducted biannually. The results will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' ability to utilize the principles of caring in the practice of nursing. | 08/2008 |
| 2. | 80% of the students will pass the clinical component of each nursing course at or higher than 75%. | Course Summaries. Each course coordinator will report via the Course Summary Report the percentage of students completing the course at 75% or higher. | 09/2008 |
| 3. | 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate Survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research, will be sent to the graduates 18 months following graduation. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis from the graduates on their ability to utilize the principles of caring in nursing practice. | 08/2008 |
| 4. | | | |
| 5. | | | |

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Perform competently the clinical skills required for safe nursing care.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 85% of the responding employers/advisory committee surveyed will rate this program goal satisfactory or higher. | Employer survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research, will be conducted biannually. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' ability to competently perform clinical skills. | 08/2008 |
| **2.** 80% of the students will pass the clinical component of each nursing course at or higher than 75%. | zClinical evaluation tool. A review of the clinical evaluation tools for each student enrolled in the course, will be reviewed by each course coordinator for completion of the clinical component at 75% or higher. | 09/2007 |
| **3.** 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing. | NCLEX Test Results. The Dean of Nursing and Nursing Faculty will review the results reported quarterly to the Dean via a summary report from the National Council of Nursing. | 05/2008 |
| **4.** 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to the graduates 18 months following graduation. The report will compile the scores (rating 1-5, 5 being the highest) and analysis from the graduates on their ability to perform clinical skills competently and safely. | 08/2008 |

**5.**

# Program Assessment Plan
## Nursing

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Communicate effectively with culturally diverse clients, families, significant others, and members of the health care team.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%. | Course Summaries. Each course coordinator will report via the Course Summary Report Form the percentage of students completing the course at 75% or higher. | 09/2008 |
| **2.** 80% of the students will utilize therapeutic communication techniques with clients, families, significant others and members of the health care team. | zJournal (N2540); Clinical evaluation tool. A review of the clinical evaluation tool for each student enrolled in the course, will be reviewed by the course coordinator for meeting the course objective to effectively communicate. A sample of 10 student portfolios will be reviewed by a committee of nursing faculty for discussion of communication techniques. | 09/2007 |
| **3.** 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to the graduates 18 months following graduation. The report will compile the scores (rating 1-5, 5 being the highest) and analysis from the graduates on their ability to communicate effectively with culturally diverse clients, families, significant other, and membes of the health care team.. | 08/2008 |
| **4.** 85% of the responding employer/advisory committee members surveyed will rate this program goal satisfactory or higher. | Employer survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research, will be conducted biannually. The report will compile the scores (rating of | 08/2008 |

# Program Assessment Plan
## Nursing

1-5, 5 being the highest) and analysis on the graduates' ability to communicate effectively with culturally diverse clients, families, significant others, and members of the health care team.

**5.** 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing.

NCLEX Test Results. The Dean of Nursing and Nursing Faculty will review the results reported quarterly to the Dean via a summary report from the National Council of Nursing.

05/2008

# Program Assessment Plan
## Nursing

**Learning Outcomes**

Teach clients and families to promote, maintain or restore health.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing. | NCLEX Test Results. The Dean of Nursing and Nursing Faculty will review the results reported quarterly to the Dean via a summary report from the National Council of Nursing. | 05/2008 |
| **2.** 85% of the responding graduates surveyed will rate this program goal as satisfactory or higher. | Graduate Survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to the graduates 18 months following graduation. The report will compile the scores (rating 1-5, 5 being the highest) and analysis from the graduates on their ability to teach clients and families to promote, maintain or restore health. | 08/2008 |
| **3.** 85% of the responding employers/advisory committee members surveyed will rate this program goal as satisfactory or higher. | Employer Survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research, will be conducted biannually. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' ability to teach clients and families to promote, maintain or restore health. | 08/2008 |
| **4.** 60% of the students will receive a score on the Mosby Assess Test indicating a predicted passage rate on NCLEX. | Mosby Assess Test (N2540). The Mosby Assess Test is a computer scored, multiple choice examination designed to test essential nursing knowledge and evaluate the ability to apply that knowledge to various clinical situations. The test concentrates of clients needs | 05/2008 |

# Program Assessment Plan
## Nursing

and covers nursing content equally in the core clinical areas. The questions have been field tested to ensure quality and validity of the questions. The questions reflect the latest knowledge, activities, procedures, medications, nursing diagnoses and terminology encountered by the
entry level nurse.

**5.** 90% of the students will design nursing care plans and papers at or higher than 75%.

zPortfolio: NCP and term papers.  A sample of 10 student portfolios will be reviewed by a committee of nursing faculty for the development of nursing care plans and term papers evaluated at 75% or higher using the develop grading criteria tools.

05/2007

# Program Assessment Plan
## NUR Transitional LPN

**Learning Outcomes**

(Note: Repeated)  Teach clients and families to promote, maintain or restore health.

| | Benchmark | Assessment Method | Timeline |
|---|---|---|---|
| **1.** | 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%. | Course Summaries.  Each course coordinator will report via the Course Summary Report Form the percentage of students completing the course at 75% or higher. | 09/2008 |
| **2.** | 80% of the students will develop and implement a teaching plan for a healthy pregnant women. | zTeaching project of a healthy pregnant women (N1510).  A sample of 10 student portfolios will be reviewed  by a committee of nursing faculty for the development of the teaching plan using the develop grading criteria tool. | 05/2007 |
| **3.** | | | |
| **4.** | | | |
| **5.** | | | |

# Program Assessment Plan
## NUR Transitional LPN

**Learning Outcomes**

Assume personal responsibility for professional growth, continued learning and self-development.

| | Benchmark | Assessment Method | Timeline |
|---|---|---|---|
| **1.** | 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to the graduates 18 months following graduation. The report will compile the scores (rating 1-5, 5 being the highest) and analysis from the graduates on assuming personal responsibility for professional growth, continued learning and self-development. | 08/2008 |
| **2.** | 80% of the students will pass the theory and clinical components of each nursing course at or higher than 75%. | Course Summaries. Each course coordinator will report via the Course Summary Report Form the percentage of students completing the course at 75% or higher. | 09/2008 |
| **3.** | 80% of the students will identify areas for professional growth, self development and educational goals as well as strategies to achieve. | Journal. Each NUR 2540 clinical faculty will review the students' journal for statement of professional growth and strategies. | 05/2008 |
| **4.** | | | |
| **5.** | | | |

# Program Assessment Plan
## NUR Transitional LPN

**Learning Outcomes**

Develop an understanding of ethical and legal principles of nursing, the importance of research, and the impact of political, economic and social forces on nursing practice.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 85% of the responding graduates surveyed will rate this program goal satisfactory or higher. | Graduate survey. The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to the graduates 18 months following graduation. The report will compile the scores (rating 1-5, 5 being the highest) and analysis from the graduates on their understanding of the ethical and legal principles of nursing and the impact of political, economic and social forces on nursing practice. | 08/2008 |
| **2.** 85% of the responding employers/advisory committee members surveyed will rate this program goal satisfactory or higher. | Employer survey. The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research, will be conducted biannually. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' understanding of the ethical and legal principles of nursing and the impact of political, economic and social forces on nursing practice. | 08/2008 |
| **3.** 90% of the students will identify ethical concepts for an ethical issue(s) at >=75%. | Course Summaries. Each course coordinator will report via the Course Summary Report Form the percentage of students completing the course at 75% or higher. | 05/2008 |
| **4.** 90% of the students will write a letter to legislator(s) supporting or not supporting a piece of current state or federal legislation. | Journal Review. A review of the NUR 2540 students journals by the clinical faculty will identify an ethical/legal/political/social issue(s) being addressed. | 05/2008 |

# Program Assessment Plan
## NUR Transitional LPN

**5.** 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%.

zTheory exams and Clinical evaluation tools. A review of the course grades and clinical evaluation tools for each student enrolled in the course, will be reviewed by each course coordinator for completion of the course (theory and clinical component) at a 75% or higher.

09/2007

# Program Assessment Plan
## NUR Transitional LPN

**Learning Outcomes**

Manage nursing care for a group of clients experiencing altered functional health patterns of varying complexity in acute or long term setting.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 80% of the graduates will pass the National Council of Nursing Exam (NCLEX) at the state and national standard for associate degree nursing programs on the first writing. | NCLEX Test Results. The Dean of Nursing and the Nursing Faculty will review the results reported quarterly to the Dean via a summary from the National Council of Nursing. | 05/2008 |
| **2.** 80% of the students will pass the theory and clinical component of each nursing course at or higher than 75%. | Course Summaries. Each course coordinator will report via the Course Summary Report Form the percentage of students completing the course at 75% or higher. | 09/2008 |
| **3.** x90% of the students will wite nursing care plans (NCP) and papers at or higher than 75%. | A sample of 10 student portfolios will be reviewed by a committee of nursing faculty for the development of nursing care plans and term papers evaluated at 75% or higher using the developed Nursing Care Plan grading tool and term paper grading tool. | 05/2008 |
| **4.** 60% of the students will receive a score on the Mosby Assess Test indicating a predicted passage rate on NCLEX. | Mosby Assess Test (N2540). The Mosby Assess Test is a computer scored, multiple choice examination designed to test essential nursing knowledge and evaluate the ability to apply that knowledge to various clinical situations. The test concentrates of clients needs and covers nursing content equally in the core clinical areas. The questions have been field tested to ensure quality and validity of the questions. The questions reflect the latest knowledge, activities, procedures, medications, nursing diagnoses and terminology encountered by the entry level nurse. | 05/2008 |

# Program Assessment Plan

## NUR Transitional LPN

**5.** 85% of the responding graduates surveyed will rate this program goal satisfactory or higher.

Graduate survey.  The graduate survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research will be sent to the graduates 18 months following graduation. The report will compile the scores (rating 1-5, 5 being the highest) and analysis from the graduates on their ability to manage nursing care for a group of clients.

08/2008

# Program Assessment Plan
## NUR Transitional LPN

**Learning Outcomes**

(Note: Repeated)  Manage nursing care for a group of clients experiencing altered functional health patterns of varying complexity in acute or long term setting.

| Benchmark | Assessment Method | Timeline |
|---|---|---|
| **1.** 85% of the responding employers/advisory committee members surveyed will rate this program goal as satisfactory or higher. | Employer survey.  The employer survey developed by the Department of Nursing with the assistance of the OCC Office of Institutional Research, will be conducted biannually. The report will compile the scores (rating of 1-5, 5 being the highest) and analysis on the graduates' ability to manage nursing care for a group of clients. | 08/2008 |
| **2.** | | |
| **3.** | | |
| **4.** | | |
| **5.** | | |

**OAKLAND COMMUNITY COLLEGE**

## Curriculum Review Committee

Nursing Review
Faculty Coordinator: Sue Stumbo
March 7, 2008

- The review process has identified NUR 1290, 1450, 1470, 1520, 1530 as catalogue descriptions needing revision.

- There is a need for more Supplemental Instructors at SF and extra help sessions (tutors) at the ASC for the nursing students.

- There is a need for additional faculty to support the 200+ students that enter the program each year. (75 adjuncts for clinicals requires extensive training)

- In order to better serve their students, Nursing is recommending placing the Pharmacology course online.

- There is a need of a large space for pinning ceremony. The Nursing Program presently has to rent space.

- There is a need for a nursing computer lab for testing and housing of nursing computer programs.

- Since the future for all nurses will include a need for a PDA or cell phone, nursing might consider incorporating into the program. They will follow up on a possible grant or course development.

## Occupational Skills

| Skill | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Social Perceptiveness | Very Important | 77 | Expert | 78 |
| Reading Comprehension | Very Important | 85 | Expert | 77 |
| Critical Thinking | Very Important | 82 | Expert | 75 |
| Active Listening | Very Important | 90 | Advanced | 73 |
| Time Management | Very Important | 80 | Advanced | 73 |
| Monitoring | Very Important | 77 | Advanced | 72 |
| Active Learning | Very Important | 75 | Advanced | 72 |
| Coordination | Very Important | 75 | Advanced | 72 |
| Service Orientation | Very Important | 79 | Advanced | 72 |
| Learning Strategies | Important | 70 | Advanced | 71 |
| Instructing | Very Important | 82 | Advanced | 71 |
| Speaking | Very Important | 81 | Advanced | 70 |
| Writing | Very Important | 76 | Advanced | 68 |
| Judgment and Decision Making | Important | 72 | Advanced | 66 |
| Complex Problem Solving | Important | 64 | Advanced | 60 |
| Persuasion | Important | 56 | Advanced | 58 |
| Mathematics | Important | 64 | Advanced | 57 |
| Science | Important | 70 | Advanced | 55 |
| Negotiation | Important | 55 | Advanced | 55 |
| Equipment Selection | Important | 54 | Advanced | 53 |
| Operation Monitoring | Important | 54 | Intermediate | 48 |
| Management of Personnel Resources | Important | 50 | Intermediate | 47 |
| Troubleshooting | Somewhat Important | 48 | Intermediate | 41 |
| Operations Analysis | Somewhat Important | 32 | Intermediate | 37 |
| Systems Evaluation | Somewhat Important | 32 | Intermediate | 37 |
| Technology Design | Somewhat Important | 36 | Intermediate | 35 |
| Quality Control Analysis | Somewhat Important | 39 | Intermediate | 35 |
| Operation and Control | Somewhat Important | 32 | Intermediate | 33 |
| Systems Analysis | Somewhat Important | 31 | Intermediate | 31 |
| Equipment Maintenance | Somewhat Important | 25 | Intermediate | 26 |
| Management of Material Resources | Somewhat Important | 31 | Intermediate | 26 |
| Management of Financial Resources | Not Important | 16 | Basic | 14 |
| Installation | Not Important | 13 | Basic | 13 |
| Repairing | Not Important | 9 | Basic | 10 |
| Programming | Not Important | 7 | Basic | 7 |

Source: O*NET Database 11

## Occupational Abilities

| Ability | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Problem Sensitivity | Very Important | 94 | Expert | 75 |
| Inductive Reasoning | Very Important | 81 | Advanced | 68 |
| Oral Comprehension | Very Important | 81 | Advanced | 66 |
| Oral Expression | Very Important | 91 | Advanced | 66 |
| Deductive Reasoning | Very Important | 75 | Advanced | 63 |
| Written Comprehension | Important | 72 | Advanced | 61 |
| Near Vision | Important | 66 | Advanced | 57 |
| Written Expression | Very Important | 75 | Advanced | 57 |
| Speech Recognition | Very Important | 75 | Advanced | 54 |
| Flexibility of Closure | Important | 56 | Advanced | 54 |
| Information Ordering | Important | 63 | Advanced | 54 |
| Arm-Hand Steadiness | Important | 50 | Advanced | 50 |
| Speed of Closure | Important | 50 | Intermediate | 48 |
| Selective Attention | Important | 63 | Intermediate | 46 |
| Speech Clarity | Very Important | 75 | Intermediate | 46 |
| Time Sharing | Important | 56 | Intermediate | 45 |
| Category Flexibility | Important | 50 | Intermediate | 45 |
| Memorization | Somewhat Important | 41 | Intermediate | 43 |
| Originality | Somewhat Important | 35 | Intermediate | 41 |
| Fluency of Ideas | Somewhat Important | 38 | Intermediate | 41 |
| Trunk Strength | Important | 60 | Intermediate | 39 |
| Perceptual Speed | Somewhat Important | 41 | Intermediate | 38 |
| Extent Flexibility | Somewhat Important | 44 | Intermediate | 38 |
| Static Strength | Somewhat Important | 35 | Intermediate | 36 |
| Auditory Attention | Somewhat Important | 35 | Intermediate | 36 |
| Finger Dexterity | Somewhat Important | 35 | Intermediate | 36 |
| Manual Dexterity | Important | 53 | Intermediate | 34 |
| Control Precision | Somewhat Important | 31 | Intermediate | 30 |
| Gross Body Coordination | Somewhat Important | 41 | Intermediate | 30 |
| Far Vision | Somewhat Important | 28 | Intermediate | 29 |
| Multilimb Coordination | Somewhat Important | 31 | Intermediate | 27 |
| Reaction Time | Somewhat Important | 25 | Intermediate | 27 |
| Depth Perception | Somewhat Important | 28 | Intermediate | 25 |
| Response Orientation | Not Important | 22 | Intermediate | 25 |
| Hearing Sensitivity | Somewhat Important | 25 | Basic | 23 |
| Stamina | Somewhat Important | 41 | Basic | 23 |
| Visual Color Discrimination | Somewhat Important | 28 | Basic | 20 |
| Speed of Limb Movement | Not Important | 22 | Basic | 20 |
| Visualization | Not Important | 19 | Basic | 18 |
| Number Facility | Not Important | 16 | Basic | 14 |
| Mathematical Reasoning | Not Important | 22 | Basic | 14 |
| Gross Body Equilibrium | Not Important | 16 | Basic | 13 |
| Dynamic Strength | Not Important | 19 | Basic | 13 |
| Explosive Strength | Not Important | 9 | Basic | 11 |
| Spatial Orientation | Not Important | 9 | Basic | 11 |
| Wrist-Finger Speed | Not Important | 6 | Basic | 5 |
| Dynamic Flexibility | Not Important | 3 | Basic | 2 |
| Rate Control | Not Important | 3 | Basic | 2 |
| Peripheral Vision | Not Important | 0 | Basic | 0 |
| Glare Sensitivity | Not Important | 0 | Basic | 0 |
| Sound Localization | Not Important | 0 | Basic | 0 |
| Night Vision | Not Important | 0 | Basic | 0 |

Source: O*NET Database 11

# Occupational Skills Analysis
## Licensed Practical and Licensed Vocational Nurses (29-2061)

Care for ill, injured, convalescent, or disabled persons in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

## Occupational Knowledge

| Knowledge | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Customer and Personal Service | Very Important | 79 | Expert | 85 |
| Psychology | Important | 74 | Expert | 84 |
| Therapy and Counseling | Very Important | 77 | Advanced | 68 |
| English Language | Very Important | 94 | Advanced | 67 |
| Education and Training | Very Important | 75 | Advanced | 65 |
| Mathematics | Important | 72 | Advanced | 59 |
| Medicine and Dentistry | Very Important | 86 | Advanced | 58 |
| Public Safety and Security | Important | 60 | Advanced | 54 |
| Sociology and Anthropology | Somewhat Important | 49 | Intermediate | 48 |
| Philosophy and Theology | Somewhat Important | 35 | Intermediate | 48 |
| Personnel and Human Resources | Important | 50 | Intermediate | 46 |
| Chemistry | Important | 53 | Intermediate | 46 |
| Administration and Management | Important | 53 | Intermediate | 43 |
| Biology | Somewhat Important | 46 | Intermediate | 42 |
| Transportation | Somewhat Important | 36 | Intermediate | 36 |
| Production and Processing | Somewhat Important | 26 | Intermediate | 35 |
| Clerical | Somewhat Important | 37 | Intermediate | 34 |
| Law and Government | Somewhat Important | 42 | Intermediate | 32 |
| Computers and Electronics | Somewhat Important | 28 | Intermediate | 29 |
| Sales and Marketing | Not Important | 13 | Intermediate | 28 |
| Geography | Not Important | 18 | Intermediate | 26 |
| Physics | Not Important | 22 | Intermediate | 26 |
| Telecommunications | Somewhat Important | 42 | Basic | 23 |
| Food Production | Not Important | 22 | Basic | 22 |
| Communications and Media | Somewhat Important | 31 | Basic | 22 |
| Foreign Language | Somewhat Important | 28 | Basic | 21 |
| Economics and Accounting | Not Important | 14 | Basic | 20 |
| Mechanical | Not Important | 22 | Basic | 20 |
| History and Archeology | Not Important | 18 | Basic | 18 |
| Engineering and Technology | Not Important | 19 | Basic | 7 |
| Fine Arts | Not Important | 6 | Basic | 5 |
| Design | Not Important | 4 | Basic | 3 |
| Building and Construction | Not Important | 0 | Basic | 0 |

Source: O*NET Database 11

## Occupational Skills

| Skill | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Active Listening | Very Important | 94 | Expert | 92 |
| Judgment and Decision Making | Very Important | 88 | Expert | 85 |
| Writing | Very Important | 92 | Expert | 84 |
| Service Orientation | Very Important | 88 | Expert | 84 |
| Active Learning | Very Important | 87 | Expert | 83 |
| Monitoring | Very Important | 91 | Expert | 82 |
| Time Management | Very Important | 92 | Expert | 82 |
| Reading Comprehension | Very Important | 93 | Expert | 82 |
| Learning Strategies | Very Important | 80 | Expert | 80 |
| Speaking | Very Important | 88 | Expert | 80 |
| Instructing | Very Important | 80 | Expert | 79 |
| Critical Thinking | Very Important | 90 | Expert | 76 |
| Social Perceptiveness | Very Important | 75 | Expert | 75 |
| Coordination | Very Important | 77 | Expert | 75 |
| Science | Very Important | 75 | Expert | 75 |
| Complex Problem Solving | Very Important | 79 | Advanced | 73 |
| Operation Monitoring | Very Important | 75 | Advanced | 71 |
| Equipment Selection | Important | 65 | Advanced | 68 |
| Management of Personnel Resources | Important | 70 | Advanced | 68 |
| Troubleshooting | Very Important | 75 | Advanced | 66 |
| Persuasion | Important | 66 | Advanced | 64 |
| Equipment Maintenance | Important | 67 | Advanced | 64 |
| Systems Evaluation | Important | 61 | Advanced | 63 |
| Mathematics | Very Important | 75 | Advanced | 62 |
| Operation and Control | Important | 64 | Advanced | 61 |
| Operations Analysis | Important | 54 | Advanced | 57 |
| Repairing | Important | 65 | Advanced | 57 |
| Negotiation | Important | 58 | Advanced | 56 |
| Management of Material Resources | Important | 60 | Advanced | 56 |
| Quality Control Analysis | Important | 59 | Advanced | 56 |
| Systems Analysis | Important | 60 | Advanced | 54 |
| Technology Design | Important | 59 | Advanced | 50 |
| Installation | Important | 57 | Intermediate | 49 |
| Management of Financial Resources | Somewhat Important | 39 | Intermediate | 38 |
| Programming | Somewhat Important | 28 | Intermediate | 27 |

Source: O*NET Database 11

## Occupational Abilities

| Ability | Importance | Imp (0-100) | Level | Lvl (0-100) |
|---|---|---|---|---|
| Problem Sensitivity | Very Important | 88 | Advanced | 73 |
| Deductive Reasoning | Very Important | 75 | Advanced | 61 |
| Speed of Closure | Important | 53 | Advanced | 61 |
| Inductive Reasoning | Important | 72 | Advanced | 61 |
| Oral Comprehension | Very Important | 91 | Advanced | 59 |
| Oral Expression | Very Important | 78 | Advanced | 59 |
| Information Ordering | Important | 72 | Advanced | 59 |
| Speech Recognition | Important | 69 | Advanced | 55 |
| Near Vision | Important | 69 | Advanced | 55 |
| Written Comprehension | Important | 63 | Advanced | 50 |
| Perceptual Speed | Important | 50 | Advanced | 50 |
| Category Flexibility | Important | 53 | Intermediate | 48 |
| Originality | Somewhat Important | 44 | Intermediate | 46 |
| Time Sharing | Important | 60 | Intermediate | 46 |
| Flexibility of Closure | Somewhat Important | 47 | Intermediate | 46 |
| Manual Dexterity | Somewhat Important | 44 | Intermediate | 46 |
| Speech Clarity | Important | 69 | Intermediate | 45 |
| Memorization | Somewhat Important | 44 | Intermediate | 45 |
| Finger Dexterity | Important | 53 | Intermediate | 45 |
| Arm-Hand Steadiness | Important | 50 | Intermediate | 43 |
| Written Expression | Important | 69 | Intermediate | 43 |
| Number Facility | Somewhat Important | 38 | Intermediate | 39 |
| Selective Attention | Important | 60 | Intermediate | 39 |
| Visual Color Discrimination | Somewhat Important | 41 | Intermediate | 39 |
| Fluency of Ideas | Somewhat Important | 35 | Intermediate | 39 |
| Static Strength | Somewhat Important | 31 | Intermediate | 36 |
| Far Vision | Somewhat Important | 41 | Intermediate | 36 |
| Trunk Strength | Somewhat Important | 38 | Intermediate | 34 |
| Hearing Sensitivity | Somewhat Important | 44 | Intermediate | 34 |
| Auditory Attention | Somewhat Important | 35 | Intermediate | 34 |
| Visualization | Somewhat Important | 28 | Intermediate | 32 |
| Depth Perception | Somewhat Important | 35 | Intermediate | 30 |
| Reaction Time | Somewhat Important | 28 | Intermediate | 29 |
| Extent Flexibility | Somewhat Important | 35 | Intermediate | 29 |
| Multilimb Coordination | Somewhat Important | 31 | Intermediate | 27 |
| Mathematical Reasoning | Somewhat Important | 35 | Intermediate | 27 |
| Control Precision | Somewhat Important | 28 | Basic | 23 |
| Gross Body Coordination | Somewhat Important | 41 | Basic | 23 |
| Dynamic Strength | Not Important | 19 | Basic | 23 |
| Speed of Limb Movement | Somewhat Important | 28 | Basic | 23 |
| Stamina | Somewhat Important | 41 | Basic | 21 |
| Response Orientation | Not Important | 19 | Basic | 18 |
| Gross Body Equilibrium | Not Important | 16 | Basic | 14 |
| Peripheral Vision | Not Important | 6 | Basic | 5 |
| Rate Control | Not Important | 9 | Basic | 5 |
| Spatial Orientation | Not Important | 3 | Basic | 5 |
| Glare Sensitivity | Not Important | 3 | Basic | 4 |
| Sound Localization | Not Important | 9 | Basic | 4 |
| Night Vision | Not Important | 3 | Basic | 4 |
| Dynamic Flexibility | Not Important | 3 | Basic | 2 |
| Explosive Strength | Not Important | 0 | Basic | 0 |
| Wrist-Finger Speed | Not Important | 0 | Basic | 0 |

Source: O*NET Database 11