

Guided Pathway Study Series: 8 of 8

Labor Market and Completion Data: Business Programs

Research Report No. 71-16

Office of Institutional Effectiveness and Student Success Initiatives

NOVEMBER 2016

NORTHERN VIRGINIA COMMUNITY COLLEGE

OFFICE OF INSTITUTIONAL EFFECTIVENESS AND STUDENT SUCCESS INITIATIVES

The purpose of the Office of Institutional Effectiveness and Student Success Initiatives is to conduct analytical studies and provide information in support of institutional planning, policy formulation, and decision making. In addition, the office provides leadership and support in research related activities to members of the NOVA community engaged in planning and evaluating the institution's success in accomplishing its mission.

When citing data from this report, the Northern Virginia Community College (NOVA) Office of Institutional Effectiveness and Student Success Initiatives must be cited as the source.

4001 Wakefield Chapel Road
Annandale, VA 22003-3796
(703) 323-3129
www.nvcc.edu/oir

Business Programs

Table of Contents

Introduction	1
Programs: Accounting, A.A.S.	3
Accounting, Career Studies Certificate	3
Bookkeeping, Certificate.....	3
Program: Business Administration, A.S.	5
Programs: Business Management, A.A.S. (incl. specializations)	8
Business Information Technology, Career Studies Certificate	8
Entrepreneurship, Career Studies Certificate.....	8
Leadership Development, Career Studies Certificate	8
Programs: Contract Management, A.A.S.....	10
Contract Management, Certificate	10
Programs: Hospitality Management, A.A.S. (incl. specializations)	11
Meeting, Event, and Exhibition Management, Certificate	11
Program: Culinary Arts, Certificate	13
Programs: Marketing, A.A.S. (incl. specializations).....	15
Social Media, Career Studies Certificate	15
Marketing, Career Studies Certificate	15
Promotion and Public Relations, Career Studies Certificate	15
Retail Management, Career Studies Certificate	15
Appendix.....	16
Appendix Table 1. CIP Codes, NOVA Programs, and NOVA Completions: 2011 and 2015 ..	16
Appendix Table 2. List of NOVA Programs by Guided Pathway	23

Business Programs

Introduction

This Report presents NOVA, regional, and national academic program and occupational data related to Business programs at NOVA. Regional data includes the following nine locations: Arlington County, Fairfax County, Loudoun County, Prince William County, Stafford County, Alexandria City, Fairfax City, Falls Church City, Manassas City, and Manassas Park City.

Every postsecondary degree/certificate program in the U.S. falls under a six-digit Classification of Instructional Programs (CIP) Code as developed by the U.S. Department of Education's National Center for Education Statistics (NCES). The purpose of the CIP Code is to provide a taxonomic scheme that will support the accurate tracking, assessment, and reporting of fields of study and program completions activity.¹ A list of NOVA programs and their corresponding CIP codes is provided in the Appendix of this report.

All NOVA degree and certificate programs have been grouped into the following eight Guided Pathways: Biology and Biotechnology; Business; Health Sciences; Information Technology, Computer Science, and Mathematics; Liberal Arts and Social Science; Physical Science, Engineering, and Applied Technologies; Public Service, Social Service, and Education; and Visual and Performing Arts, Digital Media, and Design Programs. A list of the programs included in each Guided Pathway is included in the Appendix of this report.

Within this report on the Business Guided Pathway, there are seven sections. Six tables are presented for each section in this report. The first table of each section presents data on NOVA completions. The second through sixth tables present data related to the CIP Code that corresponds to the program(s) in that section.

NOVA Program Data

- **Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015**
 - Table 1 presents five-year trends in degree or certificate completion at NOVA by NOVA program and specialization.

Data by Program (CIP) Code

- **Table 2. Five-Year Completion Trends: 2011 through 2015**
 - Table 2 presents five-year trends in degree or certificate completion at NOVA, in the Northern Virginia region, and at the state and national levels.

¹<https://nces.ed.gov/pubs2002/cip2000/>

- **Table 3. Regional Completions by Award: 2015**
 - Table 3 presents the number and percentage of completions in the Northern Virginia region by award level (Associate’s degree, Bachelor’s degree, Master’s degree, etc.) in 2015.

- **Table 4. Regional Completions by Institution and Award: 2015**
 - Table 4 presents all completions in the Northern Virginia region by institution and award level in 2015.

- **Table 5. Five-Year Projections for Target Occupations: 2016 through 2021**
 - Table 5 presents workforce data and five-year projections for occupations related to the academic program and includes the number of jobs in each occupation in 2016, annual openings, median hourly earnings, projected growth from 2016 to 2021, and the Location Quotient of each occupation.
 - The **Location Quotient** is the ratio of an occupation’s share of employment in a given area to that occupation’s share of employment in the U.S. as a whole. For example, an occupation that makes up 10 percent of employment in a specific metropolitan area compared with 2 percent of U.S. employment would have a location quotient of 5 for the area in question.

- **Table 6. National Educational Attainment of Target Occupations: 2016**
 - Table 6 breaks down each target occupation by the highest degree attained by workers in that occupation in 2016.

Data Note

Data were extracted utilizing the Economic Modeling Specialists International (EMSI) product EMSI Analyst, which compiles data from over 90 sources, including the Integrated Postsecondary Education Data System (IPEDS), the U.S. Census Bureau, the Bureau of Labor Statistics, and the Internal Revenue Service. The data were pulled between November 1st and November 8th, 2016. More information on EMSI can be found at www.economicmodeling.com/data.

**Programs: Accounting, A.A.S.
Accounting, Career Studies Certificate
Bookkeeping, Certificate**

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Accounting, A.A.S.	32	37	15.6%
Accounting, Career Studies Certificate	35	47	34.3%
Bookkeeping, Certificate	34	37	8.8%
NOVA Completions	101	121	19.8%

Trends for CIP Code: Accounting and Related Services, Other (52.0399)

Table 2. Five-Year Completion Trends: 2011 through 2015

Location	2011 Completions	2015 Completions	% Change
NOVA	101	121	19.8%
Region	101	121	19.8%
State	380	368	-3.2%
Nation	1,813	1,101	-39.3%

Table 3. Regional Completions by Award: 2015

Award Level	Completions	
	#	%
Certificate	84	69.4%
Associate's degree	37	30.6%
Total	121	100.0%

Table 4. Regional Completions by Institution and Award: 2015

Institution	Certificate		Associate's Degree		Total	
	#	%	#	%	#	%
NOVA	84	100.0%	37	100.0%	121	100.0%
Total	84	100.0%	37	100.0%	121	100.0%

Table 5. Five-Year Projections for Target Occupations: 2016 through 2021

Occupation	2016 Jobs	Annual Openings	Median Hourly Earnings	Projected Growth (2016–2021)	Location Quotient (2016)*
Bookkeeping, Accounting, and Auditing Clerks	12,771	179	\$22.95	0.9%	0.93
Regional	12,771	179	\$22.95	0.9%	0.93
National	1,599,531	15,506	\$18.17	-2.0%	1.00

*See Introduction for explanation of Location Quotient.

Business Programs

Table 6. National Educational Attainment of Target Occupations: 2016

Occupation	< High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree
Bookkeeping, Accounting, and Auditing Clerks	2.8%	28.6%	38.5%	10.3%	16.3%	3.1%	0.4%

Business Programs

Program: Business Administration, A.S.

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Business Administration, A.S.	897	1,006	12.2%
NOVA Completions	897	1,006	12.2%

Trends for CIP Code: Business Administration and Management, General (52.0201)

Table 2. Five-Year Completion Trends: 2011 through 2015

Location	2011 Completions	2015 Completions	% Change
NOVA	897	1,006	12.2%
Region	2,358	2,898	22.9%
State	8,024	10,068	25.5%
Nation	319,605	321,959	0.7%

Table 3. Regional Completions by Award: 2015

Award Level	Completions	
	#	%
Associate's degree	1,110	38.3%
Bachelor's degree	781	26.9%
Post Baccalaureate certificate	22	0.8%
Master's degree	930	32.1%
Doctoral degree	55	1.9%
Total	2,898	100.0%

Table 4. Regional Completions by Institution and Award: 2015

Institution	Associate's Degree		Bachelor's Degree		Post Baccalaureate Certificate		Master's Degree		Doctoral Degree		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
NOVA	1,006	90.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1,006	34.7%
University of Management and Technology	55	5.0%	438	56.1%	0	0.0%	167	18.0%	32	58.2%	692	23.9%
Strayer University-Virginia	0	0.0%	0	0.0%	14	63.6%	372	40.0%	0	0.0%	386	13.3%
George Mason University	0	0.0%	165	21.1%	0	0.0%	173	18.6%	0	0.0%	338	11.7%
Marymount University	0	0.0%	100	12.8%	4	18.2%	56	6.0%	0	0.0%	160	5.5%
DeVry University-Virginia	0	0.0%	17	2.2%	4	18.2%	71	7.6%	0	0.0%	92	3.2%
Stratford University	0	0.0%	26	3.3%	0	0.0%	50	5.4%	0	0.0%	76	2.6%
Argosy University-Washington DC	0	0.0%	0	0.0%	0	0.0%	11	1.2%	23	41.8%	34	1.2%
University of the Potomac-VA Campus	0	0.0%	15	1.9%	0	0.0%	11	1.2%	0	0.0%	26	0.9%

Business Programs

Institution	Associate's Degree		Bachelor's Degree		Post Baccalaureate Certificate		Master's Degree		Doctoral Degree		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Westwood College-Arlington Ballston	16	1.4%	9	1.2%	0	0.0%	0	0.0%	0	0.0%	25	0.9%
Westwood College-Annandale	15	1.4%	7	0.9%	0	0.0%	0	0.0%	0	0.0%	22	0.8%
IGlobal University	0	0.0%	0	0.0%	0	0.0%	19	2.0%	0	0.0%	19	0.7%
Columbia College	11	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	11	0.4%
Sanford-Brown College-Tyson's Corner	7	0.6%	4	0.5%	0	0.0%	0	0.0%	0	0.0%	11	0.4%
Total	1,110	100.0%	781	100.0%	22	100.0%	930	100.0%	55	100.0%	2,898	100.0%

Table 5. Five-Year Projections for Target Occupations: 2016 through 2021

Occupation	2016 Jobs	Annual Openings	Median Hourly Earnings	Projected Growth (2016–2021)	Location Quotient (2016)*
Management Analysts	28,929	935	\$49.05	8.8%	5.18
General and Operations Managers	21,088	906	\$66.48	8.2%	1.12
Managers, All Other	10,391	278	\$62.29	2.1%	3.05
Cost Estimators	3,207	137	\$34.95	5.7%	1.66
Chief Executives	2,723	64	\$105.16	2.4%	1.27
Sales Managers	2,589	105	\$74.35	7.8%	0.80
First-Line Supervisors of Housekeeping and Janitorial Workers	2,014	70	\$19.35	8.9%	1.37
First-Line Supervisors of Personal Service Workers	1,932	74	\$21.18	9.0%	1.18
Construction Managers	1,891	58	\$48.73	7.4%	0.90
Administrative Services Managers	1,522	64	\$50.09	11.0%	0.63
Transportation, Storage, and Distribution Managers	682	18	\$54.10	1.5%	0.72
Social and Community Service Managers	574	33	\$45.47	14.5%	0.52
Industrial Production Managers	292	12	\$62.52	1.7%	0.20
Gaming Supervisors	55	3	\$29.81	10.9%	0.27
Regional	77,888	2,756	\$56.32	7.3%	2.88**
National	5,404,284	177,862	\$45.44	5.1%	1.00

*See Introduction for explanation of Location Quotient.

**Weighted average of the Location Quotients for all Target Occupations.

Business Programs

Table 6. National Educational Attainment of Target Occupations: 2016

Occupation	< High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree
Management Analysts	0.5%	4.9%	12.4%	5.1%	41.0%	29.0%	7.2%
General and Operations Managers	2.1%	14.6%	23.6%	8.1%	35.3%	13.6%	2.8%
Managers, All Other	2.7%	14.4%	19.0%	8.0%	35.1%	17.2%	3.6%
Cost Estimators	3.7%	23.0%	29.3%	11.5%	28.0%	3.9%	0.5%
Chief Executives	1.5%	9.2%	15.2%	5.3%	40.3%	21.3%	7.2%
Sales Managers	1.0%	8.1%	16.1%	6.4%	50.1%	16.8%	1.5%
First-Line Supervisors of Housekeeping and Janitorial Workers	15.1%	37.1%	26.9%	8.3%	10.7%	1.4%	0.5%
First-Line Supervisors of Personal Service Workers	4.9%	24.8%	27.9%	9.7%	26.8%	5.0%	0.9%
Construction Managers	6.9%	26.3%	24.3%	8.5%	27.9%	5.3%	0.8%
Administrative Services Managers	2.2%	16.7%	29.2%	12.8%	27.7%	10.2%	1.2%
Transportation, Storage, and Distribution Managers	5.5%	29.7%	25.6%	8.9%	22.4%	7.5%	0.5%
Social and Community Service Managers	1.4%	8.1%	14.5%	6.4%	37.5%	27.5%	4.6%
Industrial Production Managers	3.3%	18.7%	23.5%	9.2%	31.8%	12.2%	1.3%
Gaming Supervisors	4.4%	23.9%	28.7%	9.6%	27.6%	5.5%	0.3%

Business Programs

**Programs: Business Management, A.A.S. (incl. specializations)
 Business Information Technology, Career Studies Certificate
 Entrepreneurship, Career Studies Certificate
 Leadership Development, Career Studies Certificate**

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Business Management, A.A.S.	27	35	29.6%
Business Management/Finance Specialization, A.A.S. †	2	5	150.0%
Business Management/Healthcare Administration Specialization, A.A.S. †	0	4	--
Business Management/International Business Specialization, A.A.S. †	5	4	-20.0%
Business Management/Public Management Specialization, A.A.S. †	0	0	--
Business Information Technology, Career Studies Certificate	56	158	182.1%
Entrepreneurship, Career Studies Certificate	0	2	--
Leadership Development, Career Studies Certificate	5	9	80.0%
NOVA Completions	95	217	128.4%

†Discontinued Fall 2016

Trends for CIP Code: Business Administration, Management and Operations, Other (52.0299)

Table 2. Five-Year Completion Trends: 2011 through 2015

Location	2011 Completions	2015 Completions	% Change
NOVA	144	275	91.0%
Region	332	449	35.2%
State	1,040	1,063	2.2%
Nation	19,662	18,245	-7.2%

Note: This CIP Code encompasses other NOVA programs not included in this Guided Pathway.

Table 3. Regional Completions by Award: 2015

Award Level	Completions	
	#	%
Certificate	211	47.0%
Associate's degree	64	14.3%
Bachelor's degree	78	17.4%
Post Baccalaureate certificate	15	3.3%
Master's degree	81	18.0%
Total	449	100.0%

Business Programs

Table 4. Regional Completions by Institution and Award: 2015

Institution	Certificate		Associate's Degree		Bachelor's Degree		Post Baccalaureate Certificate		Master's Degree		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
NOVA	211	100.0%	64	100.0%	0	0.0%	0	0.0%	0	0.0%	275	61.2%
DeVry University-Virginia	0	0.0%	0	0.0%	78	100.0%	15	100.0%	32	39.5%	125	27.8%
University of Management and Technology	0	0.0%	0	0.0%	0	0.0%	0	0.0%	49	60.5%	49	10.9%
Total	211	100.0%	64	100.0%	78	100.0%	15	100.0%	81	100.0%	449	100.0%

Table 5. Five-Year Projections for Target Occupations: 2016 through 2021

Occupation	2016 Jobs	Annual Openings	Median Hourly Earnings	Projected Growth (2016–2021)	Location Quotient (2016)*
Managers, All Other	10,391	278	\$62.29	2.1%	3.05
First-Line Supervisors of Housekeeping and Janitorial Workers	2,014	70	\$19.35	8.9%	1.37
First-Line Supervisors of Personal Service Workers	1,932	74	\$21.18	9.0%	1.18
Gaming Supervisors	55	3	\$29.81	10.9%	0.27
Regional	14,391	425	\$50.56	4.0%	2.55
National	780,212	24,872	\$34.35	5.5%	1.00

*See Introduction for explanation of Location Quotient.

**Weighted average of the Location Quotients for all Target Occupations.

Table 6. National Educational Attainment of Target Occupations: 2016

Occupation	< High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree
Managers, All Other	2.7%	14.4%	19.0%	8.0%	35.1%	17.2%	3.6%
First-Line Supervisors of Housekeeping and Janitorial Workers	15.1%	37.1%	26.9%	8.3%	10.7%	1.4%	0.5%
First-Line Supervisors of Personal Service Workers	4.9%	24.8%	27.9%	9.7%	26.8%	5.0%	0.9%
Gaming Supervisors	4.4%	23.9%	28.7%	9.6%	27.6%	5.5%	0.3%

Business Programs

**Programs: Contract Management, A.A.S.
Contract Management, Certificate**

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Contract Management, A.A.S.	4	5	25.0%
Contract Management, Certificate	12	6	-50.0%
NOVA Completions	16	11	-31.3%

**Trends for CIP Code: Business Administration, Management and Operations,
Other (52.0299)
See Page 8**

Business Programs

**Programs: Hospitality Management, A.A.S. (incl. specializations)
Meeting, Event, and Exhibition Management, Certificate**

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Hospitality Management, A.A.S.	13	18	38.5%
Hospitality Management/Food Service Management Specialization, A.A.S.	5	5	0.0%
Hospitality Management/Hotel Management Specialization, A.A.S.	4	4	0.0%
Hospitality Management/Nutrition Management Specialization, A.A.S.	7	3	-57.1%
Meeting, Event, and Exhibition Management, Certificate	9	7	-22.2%
NOVA Completions	38	37	-2.6%

Note: In 2011 there were Hotel Management and Food Service Management Certificates that were no longer active in 2015. These programs had 8 completions in 2011; this accounts for the difference between 2011 completions reported in Tables 1 and 2.

Trends for CIP Code: Hospitality Administration/Management, General (52.0901)

Table 2. Five-Year Completion Trends: 2011 through 2015

Location	2011 Completions	2015 Completions	% Change
NOVA	46	37	-19.6%
Region	46	37	-19.6%
State	340	397	16.8%
Nation	9,563	12,618	31.9%

Table 3. Regional Completions by Award: 2015

Award Level	Completions	
	#	%
Certificate	7	18.9%
Associates degree	30	81.1%
Total	37	100.0%

Table 4. Regional Completions by Institution: 2015

Institution	Certificate		Associate's Degree		Total	
	#	%	#	%	#	%
NOVA	7	18.9%	30	81.1%	37	100.0%
Total	7	18.9%	30	81.1%	37	100.0%

Business Programs

Table 5. Five-Year Projections for Target Occupations: 2016 through 2021

Occupation	2016 Jobs	Annual Openings	Median Hourly Earnings	Projected Growth (2016–2021)	Location Quotient (2016)*
Food Service Managers	1,631	66	\$28.52	9.6%	0.91
Lodging Managers	531	15	\$40.62	3.8%	1.71
Regional	2,162	81	\$31.78	8.1%	1.11
National	243,952	8,187	\$23.73	6.3%	1.00

*See Introduction for explanation of Location Quotient.

**Weighted average of the Location Quotients for all Target Occupations.

Table 6. National Educational Attainment of Target Occupations: 2016

Occupation	< High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree
Food Service Managers	9.7%	28.7%	28.1%	9.6%	20.2%	3.2%	0.6%
Lodging Managers	5.0%	18.8%	24.1%	9.3%	33.2%	7.8%	1.9%

Business Programs

Program: Culinary Arts, Certificate

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Culinary Arts, Certificate	8	10	25.0%
NOVA Completions	8	10	25.0%

Trends for CIP Code: Cooking and Related Culinary Arts, General (12.0500)

Table 2. Five-Year Completion Trends: 2011 through 2015

Location	2011 Completions	2015 Completions	% Change
NOVA	8	10	25.0%
Region	22	10	-54.5%
State	76	255	235.5%
Nation	2,838	3,679	29.6%

Table 3. Regional Completions by Award: 2015

Award Level	Completions	
	#	%
Certificate	10	100.0%
Total	10	100.0%

Table 4. Regional Completions by Institution: 2015

Institution	Certificate		Total	
	#	%	#	%
NOVA	10	100.0%	10	100.0%
Total	10	100.0%	10	100.0%

Table 5. Five-Year Projections for Target Occupations: 2016 through 2021

Occupation	2016 Jobs	Annual Openings	Median Hourly Earnings	Projected Growth (2016–2021)	Location Quotient (2016)*
Cooks, Restaurant	11,516	588	\$13.06	11.3%	1.11
Personal Care Aides	8,968	484	\$11.72	22.4%	0.59
First-Line Supervisors of Food Preparation and Serving Workers	6,966	385	\$19.53	11.6%	0.88
Food Preparation Workers	4,646	250	\$11.90	11.9%	0.61
Cooks, Institution and Cafeteria	1,461	92	\$15.95	16.6%	0.42
Chefs and Head Cooks	896	35	\$28.03	11.4%	0.77
Cooks, All Other	305	12	\$13.37	5.6%	2.23
Regional	34,758	1,846	\$14.38	14.5%	0.83
National	5,317,763	234,858	\$11.82	11.0%	1.00

Business Programs

Table 6. National Educational Attainment of Target Occupations: 2016

Occupation	< High School Diploma	High School Diploma or Equivalent	Some College, No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree
Cooks, Restaurant	30.9%	40.3%	18.2%	5.2%	4.6%	0.6%	0.2%
Personal Care Aides	17.0%	34.8%	26.9%	8.2%	10.4%	2.1%	0.5%
First-Line Supervisors of Food Preparation and Serving Workers	12.0%	35.6%	28.9%	9.0%	12.7%	1.5%	0.4%
Food Preparation Workers	28.5%	37.5%	19.4%	5.3%	7.8%	1.1%	0.3%
Cooks, Institution and Cafeteria	30.9%	40.3%	18.2%	5.2%	4.6%	0.6%	0.2%
Chefs and Head Cooks	17.6%	29.2%	22.5%	16.9%	12.3%	1.2%	0.4%
Cooks, All Other	30.9%	40.3%	18.2%	5.2%	4.6%	0.6%	0.2%

Business Programs

Programs: Marketing, A.A.S. (incl. specializations)
Social Media, Career Studies Certificate
Marketing, Career Studies Certificate
Promotion and Public Relations, Career Studies Certificate
Retail Management, Career Studies Certificate

Table 1. Five-Year Completion Trends by NOVA Program: 2011 through 2015

NOVA Program	2011 Completions	2015 Completions	% Change
Marketing, A.A.S.	4	2	-50.0%
Marketing, Digital Marketing Specialization, A.A.S.* ¹	0	1	--
Marketing, International Marketing Specialization, A.A.S.*	1	1	0.0%
Marketing, Public Relations Specialization, A.A.S.*	1	4	300.0%
Social Media, Career Studies Certificate ²	7	9	28.6%
Marketing, Career Studies Certificate	4	6	50.0%
Promotion & Public Relations, Career Studies Certificate	3	6	100.0%
Retail Management, Career Studies Certificate	2	3	50.0%
NOVA Completions	22	32	45.5%

*Discontinued Fall 2016

1. This program was previously named Marketing, eCommerce Specialization, A.A.S.

2. This program was previously named eCommerce Career Studies Certificate.

**Trends for CIP Code: Business Administration, Management and Operations,
 Other (CIP Code: 52.0299)**
See Page 8

Appendix

Appendix Table 1. CIP Codes, NOVA Programs, and NOVA Completions: 2011 and 2015

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
01.0601	Applied Horticulture/Horticulture Operations, General	Horticulture Technology, A.A.S.	0	5
		Horticulture Technology/Landscape Design Specialization, A.A.S.	5	1
04.0901	Architectural Technology/Technician	Architecture Technology, A.A.S.	15	25
10.0299	Audiovisual Communications Technologies/Technicians, Other	Music Recording Technology, Certificate	4	6
11.0101	Computer and Information Sciences, General	Information Systems Technology, A.A.S.	49	69
		Application Programming, CSC	1	12
		Database Specialist, CSC	2	22
		IT Technical Support, CSC	7	23
11.0103	Information Technology	Information Technology, A.S.	278	362
11.0701	Computer Science	Computer Science, A.S.	61	135
11.0801	Web Page, Digital/Multimedia and Information Resources Design	Web Design and Development, CSC	2	13
		Web Design Specialist, CSC	12	9
11.1003	Computer and Information Systems Security/Information Assurance	CyberSecurity, A.A.S.	--	4
12.0500	Cooking and Related Culinary Arts, General	Culinary Arts, Certificate	8	10
13.1501	Teacher Assistant/Aide	Paraprofessional Teacher Assistant, CSC [†]	9	8
14.0101	Engineering, General	Engineering, A.S.	68	86
		Engineering/Electrical Engineering Specialization, A.S.	47	71
14.3801	Surveying Engineering	Geographic Information Systems (GIS), CSC	8	10
15.0000	Engineering Technology, General	Engineering Technology, A.A.S.	0	1
		Engineering Technology/Civil Engineering Technology Specialization, A.A.S.	3	5

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
		Engineering Technology/Drafting Specialization, A.A.S.	1	1
		Engineering Technology/Mechanical Engineering Technology Specialization, A.A.S.	2	3
15.0201	Civil Engineering Technology/Technician	Site Development, CSC (formerly Land Planning, Survey, and Development)	1	0
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	Cybersecurity, CSC (formerly Network Security)	5	35
		Network Administration, CSC	7	15
		Network Engineering (Specialist), CSC	8	26
15.1302	CAD/CADD Drafting and/or Design Technology/Technician	Computer Aided Drafting and Design, CSC	23	21
15.1303	Architectural Drafting and Architectural CAD/CADD	Architectural Drafting, Certificate	9	9
16.1603	Sign Language Interpretation and Translation	American Sign Language to English Interpretation, A.A.S.	8	8
		American Sign Language, CSC	10	10
19.0709	Child Care Provider/Assistant	Early Childhood Development, A.A.S.	28	57
		Early Childhood Development/School-Age Child Specialization, A.A.S.†	1	5
		Early Childhood Development, Certificate	35	35
		Early Childhood Development, CSC	20	71
		Infant and Toddler Care, CSC	9	12
22.0302	Legal Assistant/Paralegal	Paralegal Studies, A.A.S.	40	41
23.1303	Professional, Technical, Business, and Scientific Writing	Professional Writing, Certificate	3	2
24.0102	General Studies	General Studies, A.S.	1,131	1,468
		General Studies/Recreation, Parks, and Leisure Studies Specialization, A.S.	6	8
24.0103	Humanities/Humanistic Studies	Liberal Arts, A.A.	367	321
		Liberal Arts/Art History Specialization, A.A.	3	2
		Liberal Arts/Communication Studies Specialization, A.A.	19	22
		Liberal Arts/English Specialization, A.A.	--	3
		Liberal Arts/International Studies Specialization, A.A.	47	33

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
		Liberal Arts/Psychology Specialization, A.A.	39	34
		African-American Studies, CSC [†]	0	0
		Chinese Studies, CSC [†]	2	0
		Japanese Studies, CSC [†]	2	2
		Latin American Studies, CSC [†]	2	6
		Public History and Historic Preservation, CSC (formerly Historic Preservation)	7	2
24.0199	Liberal Arts and Sciences, General Studies and Humanities, Other	General Education, Certificate	1,142	890
30.0101	Biological and Physical Sciences	Science, A.S.	237	327
		Science/Mathematics Specialization, A.S.	31	45
31.0301	Parks, Recreation and Leisure Facilities Management, General	Fitness, CSC	7	18
		Outdoor Recreation and Resource Management, CSC	0	0
		Recreation Programming and Administration, CSC	1	0
41.0101	Biology Technician/Biotechnology Laboratory Technician	Biotechnology, A.A.S.	1	9
		Biotechnology Lab Technician, CSC	0	5
43.0103	Criminal Justice/Law Enforcement Administration	Administration of Justice, A.A.S.	61	89
		Administration of Justice, Certificate	22	20
		National Security, CSC	0	7
		Security Management, CSC	1	1
43.0106	Forensic Science and Technology	Forensic Investigation (Advanced), CSC	1	2
		Forensic Investigation (General), CSC	7	3
43.0203	Fire Science/Fire-fighting	Fire Science Technology, A.A.S.	1	2
45.0101	Social Sciences, General	Social Sciences, A.S.	323	391
		Social Sciences/Deaf Studies Specialization, A.S.	3	2
		Social Sciences/Geospatial Specialization, A.S.	--	2
		Social Sciences/Political Science Specialization, A.S.	3	31
		Social Sciences/Psychology Specialization, A.S.	102	138

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
		Social Sciences/Teacher Education Specialization, A.S.	59	99
		Drivers Education, CSC	3	1
46.0000	Construction Trades, General	Construction Management Technology, A.A.S.	7	14
		Construction Supervision, CSC	3	11
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician.	Air Conditioning and Refrigeration, A.A.S.	17	33
		Air Conditioning and Refrigeration, Certificate	17	18
		HVAC-R and Facilities Services Technology, CSC	11	29
47.0604	Automobile/Automotive Mechanics Technology/Technician	Automotive Technology, A.A.S.	23	26
		Automotive Technology/Emissions Specialization, A.A.S.	6	5
		Automotive Maintenance and Light Repair, CSC	10	12
		Collision Repair Technology, CSC	3	6
47.0605	Diesel Mechanics Technology/Technician	Diesel Mechanics Technology, CSC	1	0
48.0508	Welding Technology/Welder	Welding: Basic Techniques, CSC	1	13
50.0101	Visual and Performing Arts, General	Fine Arts, A.A.	50	35
		Music, A.A.	4	6
		Music, A.A.A.	9	7
		Music/Jazz/Popular Music Specialization, A.A.A.	2	0
		Theatre, CSC	4	2
50.0401	Design and Visual Communications, General	Communication Design, A.A.S.	23	26
		Communication Design/Interactive Design Specialization, A.A.S.	7	17
		Multimedia Design, Certificate	2	1
		Electronic Media in Design, Rendering, and Animation, CSC†	0	1
50.0408	Interior Design	Interior Design, A.A.S.	25	21
50.0605	Photography	Photography and Media, A.A.S.	13	13
50.9999	Visual and Performing Arts, Other	Fine Arts, A.A.A.	11	12
		Fine Arts/Photography Specialization, A.A.A.	4	2

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
51.0601	Dental Assisting/Assistant	Dental Assisting, Certificate	--	0
51.0602	Dental Hygiene/Hygienist	Dental Hygiene, A.A.S.	38	37
51.0707	Health Information/Medical Records Technology/Technician	Health Information Management, A.A.S.	24	7
		Clinical Data Coding, CSC	15	16
		Health Information Technology, CSC	--	3
51.0799	Health and Medical Administrative Services, Other	Medical Transcription, CSC†	0	0
51.0803	Occupational Therapist Assistant	Occupational Therapy Assistant, A.A.S.	--	12
51.0806	Physical Therapy Technician/Assistant	Physical Therapist Assistant, A.A.S.	30	29
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	Veterinary Technology, A.A.S.	34	46
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	Emergency Medical Services, A.A.S.	19	29
		Emergency Medical Technician–Basic, CSC	0	16
		Emergency Medical Technician–Intermediate, CSC	0	36
		Paramedic, CSC	0	24
51.0907	Medical Radiologic Technology/Science – Radiation Therapist	Radiation Oncology, A.A.S. (Distance degree program offered through Virginia Western Community College)	--	--
51.0908	Respiratory Care Therapy/Therapist	Respiratory Therapy, A.A.S.	15	21
51.0910	Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	Diagnostic Medical Sonography, A.A.S.	7	8
51.0911	Radiologic Technology/Science - Radiographer	Radiography, A.A.S.	39	30
51.0999	Allied Health Diagnostic, Intervention, and Treatment Professions, Other	Health Science, CSC	--	18
51.1004	Clinical/Medical Laboratory Technician	Medical Laboratory Technology, A.A.S.	15	16
		Phlebotomy, CSC	23	25

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
51.1501	Substance Abuse/Addiction Counseling	Substance Abuse Rehabilitation Counselor, Certificate	9	16
51.3501	Massage Therapy/Therapeutic Massage	Massage Therapy, CSC	17	20
51.3801	Registered Nursing/Registered Nurse	Nursing, A.A.S.	210	148
52.0201	Business Administration and Management, General	Business Administration, A.S.	897	1,006
52.0299	Business Administration, Management and Operations, Other	Business Management, A.A.S.	27	35
		Business Management/Finance Specialization, A.A.S.†	2	5
		Business Management/Healthcare Administration Specialization, A.A.S.†	0	4
		Business Management/International Business Specialization, A.A.S.†	5	4
		Business Management/Public Management Specialization, A.A.S.†	0	0
		Contract Management, A.A.S.	4	5
		Marketing, A.A.S.	4	2
		Marketing/Digital Marketing Specialization, A.A.S.† (formerly e-Commerce Specialization)	0	1
		Marketing/International Marketing Specialization, A.A.S.†	1	1
		Marketing/Public Relations Specialization, A.A.S.†	1	4
		Contract Management, Certificate	12	6
		Business Information Technology, CSC	56	158
		Entrepreneurship, CSC	0	2
		Leadership Development, CSC	5	9
		Marketing, CSC	4	6
		Promotion and Public Relations, CSC	3	6
Retail Management, CSC	2	3		
Social Media Marketing, CSC (formerly e-Commerce)	7	9		
52.0399	Accounting and Related Services, Other	Accounting, A.A.S.	32	37
		Bookkeeping, Certificate	34	37

CIP Code		NOVA		
CIP Code	Description	NOVA Program	2011 Completions	2015 Completions
		Accounting, CSC	35	47
52.0901	Hospitality Administration/Management, General	Hospitality Management, A.A.S.	13	18
		Hospitality Management/Food Service Management Specialization, A.A.S.	5	5
		Hospitality Management/Hotel Management Specialization, A.A.S.	4	4
		Hospitality Management/Nutrition Management Specialization, A.A.S.	7	3
		Meeting, Event, and Exhibition Management, Certificate	9	7
52.0903	Tourism and Travel Services Management	Travel and Tourism, A.A.S.	2	1
		Travel and Tourism, Certificate	7	2
		Tour Guiding, CSC	4	3
52.1501	Real Estate	Real Estate Brokerage, Certificate	0	1
		Real Estate Brokerage, CSC	0	1

Source: National Center for Education Statistics (NCES) list of Classification of Instructional Programs (CIP) Codes. <https://nces.ed.gov/ipeds/cipcode/>

Appendix Table 2. List of NOVA Programs by Guided Pathway

NOVA Programs by Guided Pathway
<p>1. Biology and Biotechnology Programs</p> <ul style="list-style-type: none"> • Biotechnology, A.A.S. <ul style="list-style-type: none"> ○ Biotechnology Lab Technician, Career Studies Certificate • Horticulture Technology, A.A.S. <ul style="list-style-type: none"> ○ Horticulture Technology, A.A.S./Landscape Design Specialization • Veterinary Technology, A.A.S.
<p>2. Business Programs</p> <ul style="list-style-type: none"> • Accounting A.A.S. <ul style="list-style-type: none"> ○ Accounting, Career Studies Certificate ○ Bookkeeping, Certificate • Business Administration, A.S. • Business Management, A.A.S. <ul style="list-style-type: none"> ○ Business Management, A.A.S./Finance Specialization[†] ○ Business Management, A.A.S./Healthcare Administration Specialization[†] ○ Business Management, A.A.S./International Business Specialization[†] ○ Business Management, A.A.S./Public Management Specialization[†] ○ Business Information Technology, Career Studies Certificate ○ Entrepreneurship, Career Studies Certificate ○ Leadership Development, Career Studies Certificate • Contract Management, A.A.S. <ul style="list-style-type: none"> ○ Contract Management, Certificate • Hospitality Management, A.A.S. <ul style="list-style-type: none"> ○ Hospitality Management, A.A.S./Food Service Management Specialization ○ Hospitality Management, A.A.S./Hotel Management Specialization ○ Hospitality Management, A.A.S. /Nutrition Management Specialization ○ Meeting, Event, and Exhibition Management, Certificate • Culinary Arts, Certificate • Marketing, A.A.S. <ul style="list-style-type: none"> ○ Marketing, A.A.S./Digital Marketing Specialization[†] (formerly e-Commerce Specialization) ○ Marketing, A.A.S./International Marketing Specialization[†] ○ Marketing, A.A.S./Public Relations Specialization[†] ○ Social Media, Career Studies Certificate (formerly e-Commerce) ○ Marketing, Career Studies Certificate ○ Promotion & Public Relations, Career Studies Certificate ○ Retail Management, Career Studies Certificate
<p>3. Health Sciences Programs</p> <ul style="list-style-type: none"> • Dental Hygiene, A.A.S. • Dental Assisting, Certificate • Diagnostic Medical Sonography, A.A.S. • Emergency Medical Services, A.A.S. <ul style="list-style-type: none"> ○ Emergency Medical Technician – Basic, Career Studies Certificate ○ Emergency Medical Technician – Intermediate, Career Studies Certificate

NOVA Programs by Guided Pathway

- Paramedic, Career Studies Certificate
- Fire Science Technology, A.A.S.
- Fitness, Career Studies Certificate
- Health Information Management, A.A.S.
 - Clinical Data Coding, Career Studies Certificate
 - Health Information Technology, Career Studies Certificate
- Health Science, Career Studies Certificate
- Massage Therapy, Career Studies Certificate
- Medical Laboratory Technology, A.A.S.
 - Phlebotomy, Career Studies Certificate
- Medical Transcription, Career Studies Certificate†
- Nursing, A.A.S.
- Occupational Therapy Assistant, A.A.S.
- Physical Therapist Assistant, A.A.S.
- Radiation Oncology, A.A.S. (Distance Learning program offered through VA Western CC)
- Radiography, A.A.S.
- Respiratory Therapy, A.A.S.

4. Information Technology, Computer Science, and Mathematics Programs

Information Technology and Computer Science Programs

- Computer Science, A.S.
- Cybersecurity, A.A.S.
- Cybersecurity, Career Studies Certificate (formerly Network Security)
 - Network Administration, Career Studies Certificate
 - Network Engineering (Specialist), Career Studies Certificate
- Information Systems Technology, A.A.S.
 - Application Programming, Career Studies Certificate
 - Database Specialist, Career Studies Certificate
 - IT Technical Support, Career Studies Certificate
- Information Technology, A.S.
- Web Design and Development, Career Studies Certificate
 - Web Design Specialist, Career Studies Certificate

Mathematics Programs

- Science, A.S./Mathematics Specialization

5. Liberal Arts and Social Science Programs

Liberal Arts Programs

- Liberal Arts A.A.
 - Liberal Arts, A.A./Art History Specialization
 - Liberal Arts, A.A./International Studies Specialization
 - Liberal Arts, A.A./Psychology Specialization
 - Liberal Arts, A.A./Communication Studies
 - Liberal Arts, A.A./English Specialization
 - African-American Studies, Career Studies Certificate†
 - Chinese Studies, Career Studies Certificate†
 - Japanese Studies, Career Studies Certificate†

NOVA Programs by Guided Pathway

- Latin American, Studies Career Studies Certificate[†]
- Professional Writing, Certificate
- American Sign Language to English Interpretation, A.A.S.
 - American Sign Language, Career Studies Certificate
- General Education, Certificate
- General Studies, A.S.
 - General Studies, A.S./Recreation, Parks & Leisure Studies Specialization
- Outdoor Recreation and Resource Management, Career Studies Certificate
 - Recreation Programming and Administration, Career Studies Certificate

Social Science Programs

- Social Sciences, A.S.
 - Social Sciences, A.S./Deaf Studies Specialization
 - Social Sciences, A.S./Political Science Specialization
 - Social Sciences, A.S./Psychology Specialization
 - Social Sciences, A.S./Geospatial Specialization
- Public History and Historic Preservation, Career Studies Certificate (formerly Historic Preservation)

6. Physical Science, Engineering, and Applied Technologies Programs

Applied Technology Programs

- Architecture Technology, A.A.S.
- Architectural Drafting, Certificate
- Air Conditioning and Refrigeration, A.A.S.
 - Air Conditioning and Refrigeration, Certificate
 - HVAC-R and Facilities Services Technology, Career Studies Certificate
- Automotive Technology, A.A.S.
 - Automotive Technology, A.A.S./Emissions Specialization
 - Automotive Maintenance and Light Repair, Career Studies Certificate
 - Collision Repair Technology, Career Studies Certificate
- Diesel Mechanics Technology, Career Studies Certificate
- Construction Management Technology, A.A.S.
 - Construction Supervision, Career Studies Certificate
- Engineering Technology, A.A.S.
 - Engineering Technology, A.A.S./Civil Engineering Technology Specialization
 - Engineering Technology, A.A.S./Drafting Specialization
 - Engineering Technology, A.A.S./Mechanical Engineering Technology Specialization
- Computer Aided Drafting and Design, Career Studies Certificate
- Electronic Media in Design Rendering and Animation, Career Studies Certificate[†]
- Site Development, Career Studies Certificate (formerly Land Planning, Survey, and Development)
- Geographic Information Systems, Career Studies Certificate
- Welding/Basic Techniques, Career Studies Certificate

Physical Science and Engineering Programs

- Engineering, A.S.

NOVA Programs by Guided Pathway

- Engineering, A.S./Electrical Engineering Specialization
- Science, A.S.

7. Public Service, Social Service, and Education Programs

Public and Social Service Programs

- Administration of Justice, A.A.S.
 - Administration of Justice, A.A.S./Homeland Security Specialization
 - Administration of Justice, Certificate
 - Security Management, Career Studies Certificate
 - National Security Career, Studies Certificate
- General Forensic Investigation, Career Studies Certificate
 - Advanced Forensic Investigation, Career Studies Certificate
- Paralegal Studies, A.A.S.
- Substance Abuse Rehabilitation Counselor, Certificate

Education Programs

- Early Childhood Development, A.A.S.
 - Early Childhood Development, A.A.S./School-Age Child Specialization[†]
 - Early Childhood Development, Certificate
 - Infant and Toddler Care, Career Studies Certificate
 - Early Childhood Development, Career Studies Certificate
- Paraprofessional Teacher Assistant, Career Studies Certificate[†]
- Social Sciences, A.S./Teacher Education Specialization
 - Driver Education, Career Studies Certificate

8. Visual and Performing Arts, Digital Media, and Design Programs

- Communication Design, A.A.S.
 - Communication Design, A.A.S./Interactive Design Specialization
 - Multimedia Design, Certificate
- Web Design Specialist, Career Studies Certificate
- Fine Arts, A.A.
- Fine Arts, A.A.A.
 - Fine Arts, A.A.A./Photography Specialization
- Interior Design, A.A.S.
- Music, A.A.
- Music, A.A.A.
 - Music, A.A.A./Jazz/Popular Music Specialization
 - Theatre, Career Studies Certificate
- Music Recording Technology, Certificate
- Photography and Media, A.A.S.

NOVA Mission and Strategic Goals

Mission

With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Strategic Goals

- I. **STUDENT SUCCESS** – Northern Virginia Community College will move into the top tier of community colleges with respect to the college readiness, developmental course completion, retention, graduation, transfer, and career placement of its students.
- II. **ACCESS** – Northern Virginia Community College will increase the number and diversity of students being served to mirror the population growth of the region.
- III. **TEACHING AND LEARNING** – Northern Virginia Community College will focus on student success by creating an environment of world-class teaching and learning.
- IV. **EXCELLENCE** – Northern Virginia Community College will develop ten focal points of excellence in its educational programs and services that will be benchmarked to the best in the nation and strategic to building the College's overall reputation for quality.
- V. **LEADERSHIP** – Northern Virginia Community College will serve as a catalyst and a leader in developing educational and economic opportunities for all Northern Virginians and in maintaining the quality of life and economic competitiveness of the region.
- VI. **PARTNERSHIPS** – Northern Virginia Community College will develop strategic partnerships to create gateways of opportunity and an integrated educational system for Northern Virginians who are pursuing the American Dream.
- VII. **RESOURCES** – Northern Virginia Community College will increase its annual funding by \$100 million and expand its physical facilities by more than one million square feet in new and renovated space. This includes the establishment of two additional campuses at epicenters of the region's population growth, as well as additional education and training facilities in or near established population centers.
- VIII. **EMERGENCY PREPAREDNESS AND CONTINUITY OF OPERATIONS** – Northern Virginia Community College will be recognized as a leader among institutions of higher education in Virginia for its development and testing of emergency response and continuity of operation plans.

NOVA

**Northern Virginia
Community College**

703-323-3000 | www.nvcc.edu