Luna Community College

COMPUTER SCIENCE

Associate of Applied Science Degree

2017/2018

Luna Community College

Contents

Luna Community College

Program

COMPUTER SCIENCE

61 Credit Hours

Program Goals

The purpose of the degree is to provide students with computer skills for employment opportunities or as a preparatory program for students who plan to pursue a bachelor's degree in computer science or a related field.

2015/18 Curriculum Profile

https://luna.edu/media/page_files/Computer_Science_Curriculum_Profile_2012-2014.pdf

General Education Core (33 hours)

AREA I. COMMUNICATIONS (9 HOURS)

ENG111	Freshman Composition I	3 credits
ENG115	Freshman Composition II	3 credits
SPCH111	Public Speaking -or-	3 credits
SPCH112	Interpersonal Communication	3 credits

AREA II. MATHEMATICS (4 HOURS)

MATH180	College Algebra	4 credits

AREA III. LABORATORY SCIENCE (8 HOURS)

AREA IV. SOCIAL AND BEHAVIORAL SCIENCES (6 HOURS)

AREA V. HUMANITIES AND FINE ARTS (6 HOURS)

Program Requirements (22 hours)

CS105	Introduction to Computer Science	3 credits
CS112	Introduction to Operating Systems	3 credits

CS121	Introduction to Programming	4 credits
CS130	Introduction to Networking	4 credits
CS140	Computer Science I	4 credits
CS220	A+ Essential with Practical Applications	4 credits

Approved Electives (6 hours)

CS215	Java Programming	4 credits
CS245	Security+	3 credits
CS248	Web Design and Programming	3 credits
CS261	Network Concepts I	3 credits
CS267	Network Concepts II	3 credits
STEM105	Computer Use for Scientific Research	3 credits
STEM117	Introduction to Engineering	3 credits
VGD106	Script Writing and Storyboarding	3 credits
VGD130	Art and Computer Animation	3 credits
VGD147	Game Analysis and Critique	3 credits
VGD260	Video Game Project	4 credits

Computer Science Curriculum Profile 2012-2015

Program Map (link also to website)

The program map marks courses that are scheduled by semester in order to complete this degree within two years (or one year if applicable). Refer to Appendix A for the program map.

No link, not on website.

Luna Community College

Computer Science: Associate of Applied Science Degree

Program Map

Computer Science is designed for students who wish to enter the multifaceted field of computers. The program provides students with general computer hardware, software, networking and security skills using Microsoft operating systems. The purpose of the degree is to provide students with computer skills for employment opportunities of as a preparatory program for students who plan to pursue a bachelor's degree in computer science or a related field. If the primary goal is to transfer, the student must learn in advance the particular requirements of the intended school or university.

Degree Requirements Credit Hours: 61 - (General Education Core -33 credit hours)

Term 1/Fall Semester	Credits	Term 2/ Spring Semester	Credits
ENG111 Freshman Composition I	3	**ENG111 Freshman Composition II**	3
MATH180 College Algebra	4	**CS121 Introduction to Programming**	4
CS105 Introduction to Computers	3	**CS112 Introduction to Operating Systems**	3
Social & Behavioral Sciences	3	**Social & Behavioral Sciences**	3
Humanities and Fine Arts	3	**Humanities and Fine Arts**	3
Semester Total	**16**		**16**
Milestones		**Milestones**	
Complete all Term 2 courses with a letter "C" grade or better		Complete all Term 3 courses with a letter "C" grade or better	
Meet with Advisor		Meet with Advisor	
Accumulate 45 or more credits		Apply for graduation	
Maintain a 2.0 GPA or Higher		Accumulate 60 or more Credits	
Enroll in Term 4		Maintain an overall 2.0 GPA or higher	
		Graduate with an Associates, consider transfer to 4 year college or university	

First Academic Year 32 total credit hours

* It is highly recommended that students needing remedial courses utilize the summer semester to continue on a program map. This would allow students to complete their program of study within the traditional two academic years.

Luna Community College

Computer Science: Associate of Applied Science Degree

Program Map

Term 3/ Fall Semester	Credits	Term 4 / Spring Semester	Credits
Public Speaking or Interpersonal Communications	3	**CS140 Computer Science I**	4
Laboratory Science	4	**CS220 A+ Essential with Practical Applications**	4
CS130 Introduction to Networking	4	**CS215 Java Programming**	4
Elective	3	**Elective**	3
Semester Total	**14**	**Semester Total**	**15**
Milestones		**Milestones**	
Complete all Term 2 courses with a letter "C" grade or better		Complete all Term 3 courses with a letter "C" grade or better	
Meet with Advisor		Meet with Advisor	
Accumulate 45 or more credits		Apply for graduation	
Maintain a 2.0 GPA or Higher		Accumulate 60 or more Credits	
Enroll in Term 4		Maintain an overall 2.0 GPA or higher	
		Graduate with an Associates, consider transfer to 4 year college or university	

Second Academic Year 29 total credit hours

Professional Development

List PD if it pertains specifically to meeting needs in this program; otherwise use PD at department level to identify all PD.

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Courses Offered by Semester

Fall 2018

Fall By Course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS 105	1	3	11	33
CS 112	2	3	13	39
CS 140	1	4	12	48
CS 220	1	4	12	48
CS 261	1	3	7	21

Spring 2019

Spring by course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS105	2	3	12	36
CS121	2	4	13	52
CS130	2	4	12	48
CS215	2	4	7	28
CS267	2	3	6	18

Summer 2019

Summer by course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours

Retention Rates Fall to Spring

Course	Total Fall Enrollment	Spring Enrollment*
CS 105	9	12
CS 112	11	Not offered in Spring
CS 140	9	Not offered in Spring
CS 220	8	Not offered in Spring
CS 261	4	Not offered in Spring

*Spring census date; if you don't have it, put end of Spring semester enrollment but caveat with ** asterisk and explain.

Student Enrollment (Three-Year Annual Trend)

2015/2016	2016/2017	2017/18

Fall 2016

Fall By Course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS 105	1	3	11	33
CS 112	1	3	12	36
CS 140	1	4	12	48
CS 220	1	4	12	48
CS 261	1	3	6	18

Spring 2017

Spring by course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS105	1	3	12	36
CS121	1	4	15	60
CS130	1	4	12	48
CS215	1	4	6	24
CS248	0	0	0	0
CS267	1	3	6	18

Summer 2017

Summer by course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS245E	1	3	5	15

Fall 2015

Fall By Course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS 105	1	3	16	48
CS 112	1	3	11	33
CS 140	1	4	3	12
CS 220	1	4	9	36
CS 261	1	3	4	12

Spring 2016

Spring by course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS105	1	3	8	24
CS121	1	4	11	44
CS130	1	4	12	48
CS248	1	3	11	33
CS267	1	3	3	9

Summer 2016

Summer by course

Course	# of Sections	Credit	# Students Enrolled	Student Credit Hours
CS245E	1	3	10	30

Student Graduation (Three-Year Annual Trend)

2015/2016	2016/2017	2017/18
6	7	7

Synopsis of Significant Findings

Program Improvement Plans Implemented or In-Progress

Advisory Committee Work

If a committee is established just for accounting for example, then you would include the yearly results.

Student Advisement by Semester

Get Advisement report from advisors and gather essential and relevant (program) info. for this section.

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Yearly Return on Investment

Costs for instruction are listed by course.

Revenue

Course Name	#of Credits	#of Students	SCH	Tier $	Tier Funding Tot	Tuition $40	Total Revenue
CS 105	3	23	69	$133	$1463	440	$11,868.00
CS 112	3	13	39	$133	1596	480	$6,708.00
CS121	3	13	39	$133		480	$6,708.00
CS 130	3	12	36	$133		383	$6,192.00
CS 140	4	12	36	$133		456	$8,256.00
CS215	4	7	28	$133		266	$4,816.00
CS 220	4	12	36	$133		456	$8,256.00
CS215	4	7	28	$133			$4,816.00
CS 261	3	13	39	$133			$6,708.00

Costs

Course Name	Instructor Salary	Fringe	Operational Costs (63 and 64 codes)	Total Costs
CS 105				$5,550.00
CS 112				$390.00
CS121				$390.00
CS130				($125.30)
CS 140				($167.33)
CS215				($3,607.33
CS 220				($167.33)
CS261				$390.00

<Include Class Cost Per Student (e.g., Revenue-Costs/students enrolled)>

<Include Cost per Graduate (e.g., Revenue-Costs/students graduated this year)>

Alumni Surveys

<List any surveys you sent out this year.>

Program Learning Assessment Plan (Weave)

Appendix B provides the program assessment of learning plan created by the faculty.

Student Alumni

< You will need to keep in contact with graduating students. Where do they go? If they Transfer or go straight into a job; if a job, list job, if a transfer, list college.>

Curriculum Committee Work (Link)

<The following courses were submitted to the curriculum committee to align them with NM articulation agreements. Explain what, when, how it changed the program>

Final Program Approvals (Board of trustees) approvals to move program forward

<Final approvals from VP/ President and board of trustees meeting.>

Accreditation

<List any accreditation required for this program>

Evaluation of the Program

Summary

Although cost of course deficit is minimal, it is not sustainable. Increase in student enrollment or increase in Tuition is necessary. Program enrollment is consistent and should increase.

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Appendix A: Program and Student Assessment of Learning

<Academic Program Plan and SLO assessment goes here. Pull from WEAVE.>

LCC Academic Computer Science AAS PLO Assessment Plan

2017-2018

In Progress

Program Mission Statement

Preparing students for careers or further academic study in science, technology, engineering mathematics (STEM) and STEM education and imparting core knowledge in science and mathematics to all students.

Program Goal

1 Computer Science AAS

Program Overview Computer Science is designed for students who wish to enter the multifaceted field of computers. The program provides students with general computer hardware, software, networking and security skills using Microsoft operating systems. The purpose of the degree is to provide students with computer skills for employment opportunities or as a preparatory program for students who plan to pursue a bachelor's degree in computer science or a related field. If the primary goal is to transfer, the student must learn in advance the particular requirements of the intended school or university. PLOA Plan Year 1 This three-year plan (2017/18, 2018/19, 2019/20) will evaluate the following three PLOs and three general education PLOs: PLO 3. Maintain and differentiate between different operating systems PLO 6 Maintain and implement small home and office networks PLO 8. Use the techniques and skills for professional practice The courses being used to assess these PLO's are: CS112 Introduction to Operating Systems CS130 Introduction to Networking CS220 A+ Essentials w/ Practical Application Gen Ed: Communication Critical Thinking Digital Literacy

Program Learning Outcomes

1.1 Summarize and interpret the history and evolution of computer systems as well as social issues involving computers

Description

Not currently being assessed this year as part of the three year plan

1.2 Analyze and interpret data when developing programs using C++ and Java

Description

Not Applicable

1.3 *Maintain and differentiate between different operating systems

Description

Students are required to understand the difference between the various types of operating systems. The will learn to maintain different operating systems but will predominately learn to maintain and demonstrate knowledge of Windows Operating systems

Action Plan

Complete

Instructor will modify textbook assignments, quizzes and exams assigned to students in the course as there needs to be more time allotted to prepare for the certification. The textbook material will not be omitted but the number of questions from 16 a quiz will be reduced to 10. The chapter review questions with be assigned based on each class. Exams will remain the same of 25 questions per exam covering 3-4 chapters per exam. Instructor will have student take the practice exam the first week of school to compare results of knowledge known at the begging and post.

Due Date

no due date

set

#	Action Item	Date Created	Due Date	Status
1	Course Revision	5/23/2018		In Progress

PLO Assessment Method

1.3.1 CS112-Introduction to Operating Systems

Source of Evidence

Certification - Academic Direct

Description

The TestOut ClientPro Certification Exam is a national exam assesses the following objectives:

1. Windows installation and configuration
2. Access
3. Applications and services
4. Hardware
5. Storage
6. Networking
7. Printing
8. System Protection

Describe the assessment method and Course used to assess this PLO.

CS112 Introduction to Operating Systems:

This course offers a brief introduction to operating systems where students will gain an understanding of the terms process, scheduling, memory, file management, processes and threads. Students will learn to use editors, compilers, linkers, assemblers, debuggers, and program assembly using libraries. Students will master concepts of process, threads, forks, and dinner?s problem done with Linux.

Pre requisite: CS105

Students are assigned material from the adopted textbook as well as from labsim. Students complete review questions, quizzes and exams from the textbook each with its own weight, Students are required to complete all labs and sections exams within labsim, each can be taken an unlimited amount of times or as until a student achieves 100%. Students will take the practice certification exam prior to taking the Final exam (ClientProCertification).

The ClientPro exam is skills based, 15 labs approximately 47 tasks that are asked of the student to complete within 2 hours. The Labsim software prepares students for TestOut Client Pro, Microsoft 70-697, Microsoft 70-698.

Benchmark/Target

1.3.1.1 Partially Met

Benchmark/Target

The Certification benchmark is 1440 to successfully pass the exam. The target is to have 85% of students passing this exam with a score of 1500 or greater.

Finding

Fall 2017: Eleven students completed the course. Seven students participated in the final exam (certification) 71% of students passed with a 1500 or greater. Ultimately 71% (5 of 7) passed the exam.

Analysis of Finding

Students who took the Final Exam (certification) and passed with a score of 1500 or greater spent more time within labsim practicing labs. These students also participated more frequently in class discussions. The textbooks assignments and quizzes will need to be modified to allow for more time within labsim.

Improvement Type	Improvement Description
Academic Process Modifications	Action Plan implemented; will assess next cycle

Improvement

Type of improvement made evidence is reflected in yr 2 assessment plan.

1.4 Communicate effectively, engage in life-long learning and function on teams

Description

Not being assessed for current 3yr plan.

1.5 Distinguish between the hardware and software of a computer system

Description

Not Applicable

1.6 *Maintain and implement small home and office networks

Description

Students are required to differentiate between all the components used in a SOHO as well as the media, architecture and topology used. Students will used the concepts learned to implement and maintain SOHO networks. Students will understand and use the OSI theoretical model.

Action Plan

Planned

Instructor will modify textbook assignments, quizzes and exams assigned to students in the course as there needs to be more time allotted to prepare for the certification. The textbook material will not be omitted but the number of questions from 16 a quiz will be reduced to 10. The chapter review questions with be assigned based on each class. Exams will remain the same of 25 questions per exam covering 3-4 chapters per exam. Instructor will have student take the practice exam the first week of school to compare results of knowledge known at the begging and post.

Due Date

no due date

set

#	Action Item	Date Created	Due Date	Status
1	Course Revision Spring '19	5/24/2018		Planned

PLO Assessment Method

1.6.1 CS130 Introduction to Networking

Source of Evidence

Certification - Academic Direct

Description

The certification is a national exam through TestOut, The exam assess the following objectives:

1. Cables and Connectors
2. Ethernet

3. IP Configuration
4. Network Managment
5. Network Security
6. Networking Devices
7. Wireless Networking

CompTIA Approved Quality Content

Describe the assessment method and Course used to assess this PLO.

CS130 Introduction to Networking

This course introduces the student to local- and wide-area networks, OSI 7 layer model switches routers, and TCP/IP. Topics covered may lead a student to pass the Network+ test. Topics include: network protocols, connections and topologies. Network security will be addressed as part of the curriculum.

Prerequisites: CS 105

Students are assigned material from the adopted textbook as well as from labsim. Students complete review questions, quizzes and exams from the textbook each with its own weight, Students are required to complete all labs and sections exams within labsim, each can be taken an unlimited amount of times or as until a student achieves 100%. Students will take the practice certification exam prior to taking the Final exam (NetworkPro Certification). The NetworkPro exam is skills based, 15 labs approximately 47 tasks that are asked of the student to complete within 2 hours. The Labsim software prepares students for the TestOut Network Pro, CompTIA Network+ (N10-007).

Benchmark/Target

1.6.1.1 Partially Met

Benchmark/Target

The Certification benchmark is 1360. The target is to have 85% of students passing this exam with a score of 1500 or greater

Finding

Spring 2018: Fifteen students enrolled, thirteen participated in the final exam 62% (8 of

13) of students passed with a 1500 or greater. Ultimately 85% (11 of 13) passed the exam.

Analysis of Finding

Students who participated in the final did well although not all met the benchmark. Modification to the Textbook assessments and assignments need to be made to allow for more concentration within LabSim. Deadlines needs to be enforced to encourage students to manage their time.

Improvement Type

Academic Process Modifications

Improvement Description

Action Plan implemented; will assess next semester

Improvement

Implementation of the the action plan will be Spring 2019 and outcomes will be reflected in Year 2.

1.7 Identify various applications as well as their functions

Description

Not Applicable

1.8 *Use the techniques and skills for professional practice

Description

Students will be able to identify , maintain and describe the components of a computer as well as common devices used. Students will also practice soft skills, professionalism and ethical practices.

PLO Assessment Method

1.8.1 CS220 A+ Essential w/ Practical Apps

Source of Evidence

Certification - Academic Direct

Description

The certification is a national exam through TestOut. The assessed objectives in

the exam are:

1. Audio
2. Basic Hardware Components
3. External Devices
4. Mobile Devices
5. Networking
6. Printing
7. Security
8. Storage
9. System Management
10. Video

CompTIA Approved Quality Content

Describe the assessment method and Course used to assess this PLO.

CS220 A+ Essentials w/ Practical Apps

A+ Essentials with Practical Applications prepares students for CompTIA?s A+ Certification Exam. The lecture focuses on operating system and hardware concepts; the practical lab applications focus on installing, configuring and troubleshooting hardware.

Prerequisites: CS105.

Students participate in class discussion covering techniques used as professional computer technicians as well as the professionalism and ethics needed when working with clients and other professionals. Students complete discussion board assignments as well as in class assignments as they prepare for the Final Exam (PcPro Certification). Students take 4 exams throughout the semester using labsim in preparation for the Final Exam, which is skills based. Students are asked to install, repair, configure, secure, and manage computer hardware, operating systems, and software in home or corporate environments virtually through labsim. The Labsim software prepares students for the TestOut PC Pro, CompTIA A+ 220-901, CompTIA A+ 220-902 exams.

Benchmark/Target

1.8.1.1 Exceeded

Benchmark/Target

The Certification benchmark is 1360. The target is to have 85% of students passing this exam with a score of 1500 or greater

Finding

Fall 2017: Nine students enrolled, seven students participated in the final. 100% (7/7) of students passed with a 1500 or greater.

Analysis of Finding

Students who took the final exam did very well and scored above the target. Based on results the target should be raised to 1600..

Improvement Type

Audit

Improvement Description

Academic student learning acceptable, process is working well or exceeding expectations

Improvement

Although target was exceeded, instructor would like to add more hands on experience as well as continue to work on recruitment and retention. Instructor will have student take the practice exam the first week of school to compare results of knowledge known at the begging and post.

1.9 Understanding of professional and ethical responsibility

Description

Not Applicable

1.10 Demonstrate knowledge of contemporary issues

Description

Not Applicable

Project Attachments

Attachments (2)	File Size	Last Modified
Computer Science 2015-2018 Catalog.pdf	696KB	MAY 18, 2018
CSplo_closCourseMapping.pdf	416KB	MAY 18, 2018

CS112
INTRODUCTION TO OPERATING SYSTEMS
FALL 2018 01
CLOA PRESENTATION

Nichole Collins
STEM
Luna Community College
CS Faculty

Luna Community College

Purpose

The purpose of this report is to assess student learning based on the established Course Learning Outcomes for **CS112 Introduction to Operating Systems** course. The focus of this report is to document the methods and results of the assessments that were used throughout the course. The results will then be used to make informed decisions on modifications to course content, emphasis teaching methodologies, and improvements in student learning.

PLO being assessed.

PLO #3. Maintain and differentiate between different operating systems:

General Education Core being assessed:

- Communication
- Critical Thinking

Digital Literacy

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Course Description

This course offers a brief introduction to operating systems where students will gain an understanding of the terms process, scheduling, memory, file management, processes and threads. Students will learn to use editors, compilers, linkers, assemblers, debuggers, and program assembly using libraries. Students will master concepts of process, threads, forks, and dinner's problem done with Linux.
Pre requisite: CS105 (3 Credit hours).

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Course Learning Outcomes

Course Learning Outcomes found on the syllabus will be entered here.

1. Describe the purpose and theory of operating systems
2. Differentiate between various operating systems
3. Demonstrate standard operating and maintenance procedures
4. Configure storage devices, I/O devices, remote communication devices and network connectivity

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Assessment Methods

- 10% Attitude, Attendance & Participation (AAP)
- 10% Assignments
- 10% Chapter Quizzes (text book)
- 20% Exams (3) (text book)
- 30% Lab Simulator
  - *10% Section Quizzes*
  - *10% Labs*
  - *10% Exams (4)*
- 20% Final

The average Final Exam score is 56.3

The benchmark for the final exam (Certification) is a 1440 the target is >=1500.
7 out of 9 who took the exam scored >1500.

Pre-Test	Post-Test
	59
	0
	75
	0
	86

Pre-Test	Post-Test
	72
	93
	83
	0
	84
	92
	88
	0

Grade Distribution

Thirteen students enrolled in the course, none withdrew which led to a 62% retention as 5 students did not meet the benchmark of a 70% for the course. There are different reasons to why a student would not meet the benchmark, major factors of not succeeding is not attending class and completing the assigned materials.

Grade Distribution

Beginning Enrollment: 13

Course	A's	B's	C's	D's	F's	I	AU	S	U	W	Total	%A's	%B's	%C's	%D's	%I's	%S's	%U's	*Percent Retention
CS112	2	4	2	1	4						13	15%	31%	15%	8%	0%	0%	0%	62%

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COURSE Competency Rubric

Students on average were successful in mastering the course learning outcomes for CS112. Students practice the skills using lab simulations, as well as taking text book exams and assignments to practice the theory subject matter.

Students	1	2	3	4	Average
1	2	2	2	2	2
2	1	1	1	1	1
3	3	3	3	3	3
4	1	1	1	1	1
5	5	5	5	5	5
6	3	3	3	3	3
7	5	5	5	5	5
8	4	4	4	4	4
9	1	1	1	1	1
10	4	4	4	4	4
11	4	4	4	4	4
12	4	4	4	4	4
13	1	1	1	1	1
Average	2.92	2.92	2.92	2.92	2.92

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Conclusion

Based on the findings from Year 1 of the CLO Assessment Plan a action plan was created.
For Year 2, 2018-2019 academic year: I reduced the number of questions for Textbook quizzes and if needed modified the amount of time spend within the Textbook. I also allowed for more class time to be used to cover materials and practice using TestOut Labsim.

Eight out of nine students who took the final exam (ClientPro Certification) earned their Certification.

Year 2 Action Plan: I will continue to modify the materials from the textbook and look for more way to have the students practice what they learn. The course description will also be updated in the new catalog and syllabus.

Luna Community College

CS220

A+ ESSENTIALS W/ PRACTICAL APPLICATIONS

FALL 2018 01

CLOA PRESENTATION

Nichole Collins
STEM
Luna Community College
CS Faculty

Luna Community College

Purpose

The purpose of this report is to assess student learning based on the established Course Learning Outcomes for **CS220 A+ Essentials w/ Practical Applications** course. The focus of this report is to document the methods and results of the assessments that were used throughout the course. The results will then be used to make informed decisions on modifications to course content, emphasis teaching methodologies, and improvements in student learning.

PLO being assessed.

PLO #8. Use the techniques and skills for professional practice

General Education Core being assessed:

- Communication
- Critical Thinking
- Digital Literacy

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Course Description

A+ Essentials with Practical Applications prepares students for CompTIA's Exam 220-701 and 220-702. The lecture focuses on operating system and hardware concepts; the practical lab applications focus on installing, configuring and troubleshooting hardware.

Prerequisites: CS105.

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Course Learning Outcomes

Course Learning Outcomes found on the syllabus will be entered here.

1. Set up a new computer and identify system requirements when purchasing a new computer.
2. Understand the technology and specifications used to describe computer components, and make informed choices about which device characteristics are required for your situation.
3. Install or upgrade the operating system.
4. Manage external devices.
5. Install and upgrade internal computer and laptop components.
6. Troubleshoot computer components.
7. Install, partition, and format hard disk storage.
8. Configure a small office/home office (SOHO) network.
9. Configure system security settings.
10. Troubleshoot system startup.
11. Back up and recover a computer and user data.

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Assessment Methods

- 10% Attitude, Attendance & Participation (AAP)
- 10% Discussions/INJ
- 30% Lab Simulator
  - *10% Quizzes*
  - *10% Labs*
  - *10% Assignments (videos)*
- 20% Exams (4)
- 30% Certification EXAM (Mandatory)

The average Final Exam score is 70.5.

The benchmark for the final exam (Certification) is a 1360 the target is >=1500.
9 out of 10 who took the exam scored >1500.

Pre-Test	Post-Test
66	
85	
98	
75	
94	
78	
0	
79	
10	
0	
79	
92	
0	

Grade Distribution

Thirteen students enrolled in the course, none withdrew which led to a 75% retention as 3 students did not meet the benchmark of a 70% for the course. There are different reasons to why a student would not meet the benchmark, major factors of not succeeding is not attending class and completing the assigned materials.

Grade Distribution

Beginning Enrollment: 12

Course	A's	B's	C's	D's	F's	I	AU	S	U	W	Total	%A's	%B's	%C's	%D's	%I's	%S's	%U's	*Percent Retention
CS220	3	1	5	0	3	0					12	25%	8%	42%	0%	0%	0%	0%	75%

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COURSE Competency Rubric

Students on average were successful in mastering the course learning outcomes for CS220. Students practice skills using lab simulations, and keep up with technology news

Students	1	2	3	4	5	6	7	8	9	10	11	Average
1	1	1	1	1	1	1	1	1	1	1	1	1
2	3	3	3	3	3	3	3	3	3	3	3	3
3	5	5	5	5	5	5	5	5	5	5	5	5
4	3	3	3	3	3	3	3	3	3	3	3	3
5	5	5	5	5	5	5	5	5	5	5	5	5
6	3	3	3	3	3	3	3	3	3	3	3	3
7	1	1	1	1	1	1	1	1	1	1	1	1
8	3	3	3	3	3	3	3	3	3	3	3	3
9	5	5	5	5	5	5	5	5	5	5	5	5
10	3	3	3	3	3	3	3	3	3	3	3	3
11	4	4	4	4	4	4	4	4	4	4	4	4
12	1	1	1	1	1	1	1	1	1	1	1	1
Average	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08

Luna Community College

Conclusion

Based on the findings from Year 1 of the CLO Assessment Plan a action plan was set in place.
For Year 2 2018-2019 academic year I followed the plan set and allowed the students more time to review and practice within LabSim during course time. Students were also encouraged to help each other when find it difficult to accomplish labs.

Nine out of ten students who took the final exam (PCPro Certification) earned their Certification.

Year 2 Action Plan: Based on the findings from Year 2 the course description will updated to remove the specifiv exam number as they change. I will also have supplemental assignment to align with the sections in LabSim. I will incorporate more soft skill learning.

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