EDUCATIONAL MASTER PLAN
2012-2017

Business, Computer Science, District Workforce &

Economic Development Division

Working Draft
4-15-2013

Yavapai **COLLEGE**

life explored

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Business, Computer Science, District Workforce & Development Division

With the business and technology markets changing at a rapid pace, the Business, Computer Science, District Workforce & Development Division can help you acquire or improve the skills you need to succeed. Offering multiple degrees and certificates, your educational goals in accounting; business; computer science fields including networking, applications, and video game development; or paralegal studies are within reach.

In addition, there is assistance and training to businesses and organizations through the Custom Training Department and Small Business Development Centers.

Degrees & Certificates Offered

Associate Degrees:
- Associate of Business

Associate of Applied Science Degrees:
- Accounting
- Computer Networking Technology
- Computing Systems and Applications
- Management
- Office Administration
- Paralegal Studies
- Video Game Development

Certificates:
- Accounting Assistant
- Administrative Office Specialist
- Cisco Networking Specialist
- Computer Application Specialist
- Computer Networking Technician
- Legal Office Clerk
- Legal Office Secretary
- Management
- Paralegal Studies - Legal Nurse
- Small Business Entrepreneurship
- Video Game Developer
- Windows Server Administrator

Executive Summary

Accounting, Computer Science, Paralegal, Video Gaming

One thing is clear from looking at the enrollment trends in the Business, Computer Science, District Workforce & Economic Development division is that there is a significant trend towards online courses offered in eight week formats and hybrid courses offered in a six week formats. As this trend continues, it will mean that we will have a continued need for the technology to support these types of classes. Already the technology does not support the size of files that are submitted in most of our video gaming classes. Present technology does not support the level of audio/video teaching files used in the video gaming classes and the Dreamweaver class (CSA 144). Those instructors have had to put those teaching files on DVD's to make them accessible for their students because Blackboard cannot support this many audio/video files. This will be a trend that continues in all of our classes and I think that it will be the case in all online classes from all areas particularly as instructors become more adapt with using the tools that allow them to create audio/video files.

One of the areas that were brought up in several different areas is the increasing trend toward the use of mobile devices. From an education point of view there will definitely be an opportunity to educate the public on how these devices can be used. This raises questions about what YC will do to have those mobile devices available for student use. In addition it also points to having the WI-FI infrastructure in place to support the use of mobile computing, lots of mobile computing use.

Once again, something that is brought up in several of the reports is the increasing trend for skills and knowledge but not necessarily the need for certificates or degrees. This is in direct conflict with the need of the college to have and report completers for government agencies. Even with that conflict it is something that YC needs to look at when it comes to providing classes that fit the needs that are out there. Some of the suggestions made in the Business report include such options as the online/cloud enterprise, entrepreneurship, case studies in *The New Economy*, office and business technology, and critical thinking. Clearly the direction in many of the careers in business point to a knowledge based economy where location does not matter, entrepreneurial skills are needed, and there are no boundaries. Much of this points to knowledge as the key and having a certificate or degree is secondary. In general this trend is heavily influenced by the high cost of education while the median, real pay has leveled or even declined. Employment trends in all areas reported shows anywhere from good to excellent growth. Many of the reports had data from the Bureau of Labor Statistics (BLS) in addition to our EMSI data. Generally speaking they were close to the same except in office and administrative support positions. The EMSI does not indicate much growth in this area particularly in Yavapai County where there will be downturn in the need for jobs in office and administrative area. BLS data indicates that it will be the area where the most jobs will be added.

Clearly, as was mentioned in several reports, technology will drive changes in curriculum. It is very difficult to predict what those technological changes will be. Who would have predicted 10 years ago when we had primarily text based online courses that technology would have changed enough that it is common place for online courses to have a number of links to video files in places like You Tube? The technology was not even there 10 years ago to do this much less was YouTube even available in its present format. Technological changes will drive content in business, computer science, computer networking, and video gaming. Any time we talk about technological changes we are talking about the hardware, software, and support needed to implement those changes. And a very important part of this is also providing the

support and training needed to keep up with these changes which could be a significant cost (see the CNT report).

In the CNT and Video Gaming reports the need for flexible scheduling has been brought up. What has already been mentioned is that we have been doing more and more of that within the constraints of regular semester in most of our areas. Their suggestions go beyond that giving students the opportunity to sign up for classes anytime. The Western Governors model of charging one fee and letting students take as many classes that they can complete in a set period of time is something that could work very well for the video gaming area. This is something that will definitely be a trend for the future of education and how we implement that will be significant undertaking.

Partnerships, although only mentioned briefly in some of the reports, with high schools, other community colleges, and universities will be a significant issue to deal with. As we continue to grow our dual enrollment programs with area high schools we will need to create systems that will establish policies and procedures that will establish communication channels, training, etc. As this has continued to grow in our area it is apparent that there is a lot of work that will be needed to make this work effectively. There is tremendous potential for growth but it will not happen very smoothly if a solid plan is not established. The universities in this state, both private and public, have been making significant overtures to all the community colleges in the State to blend our programs with their programs. We should do as much as we can to nurture those relationships and increase the number of programs that will work for our students. Enrollment trends in Accounting, Business show that there will be declines in many courses but that appears to be because of some high enrollments four to five years ago. Enrollments in both areas have been very steady lately and have been positively affected by changes in degrees and certificates. The expectation is that enrollments will have solid steady growth over the next five years. In Computer Networking Technology and Computer Systems Applications the enrollment trends show excellent growth and the expectation is that will continue. Critical to keeping up those trends will be keeping up with the new technologies in each of these areas. The Paralegal trends show that it will be very steady in its enrollment. With the program moving to a fully online format and expanding the marketing of the program to all of northern Arizona (no paralegal programs in that part of the state) there is an expectation of excellent growth. The Video Gaming program is just taking off and the expectation is that it can be expanded beyond Yavapai County, potentially a national market, and there will be significant growth in this area.

BSCS Instructional Cost Dashboard

BSCS

1011

Discipline Description	YC Cost / SCH	Natl Cost / SCH	(Cost) / Save	YC Sem SCH / Faculty	Natl SCH / Faculty	YC Class Size	Seat Fill Rate	YC % PT	Natl % PT	(Subsidy) Gain / SCH	Total (Subsidy) Gain	Total Other Instructional Labor
Accounting	$96	$88	($20,836)	298	236	22.5	74%	20%	32%	($3)	($8,602)	$11,641
Business Administration	$89	$80	($50,874)	372	261	23.0	88%	21%	37%	$4	$23,016	$26,530
Computer Networking Technology	$109	$125	$41,930	260	189	16.1	83%	39%	37%	($11)	($28,661)	$32,222
Computer Systems & Application	$86	$100	$63,794	200	228	15.7	71%	55%	37%	$8	$34,858	$22,573
Paralegal Studies	$146	$93	($38,199)	168	143	13.1	53%	41%	50%	($53)	($38,269)	$2,988
Real Estate	$134			390		26.0	87%	0%		($42)	($3,259)	$336
Small Business Entrepreneur	$52	$153	$20,171	199	174	14.0	50%	100%	40%	$44	$8,729	$858
Video Game Development	$21			410		41.0	86%	100%		$71	$17,553	$1,061
Web Related Studies	$130			84		12.3	24%	88%		($37)	($6,735)	$1,136
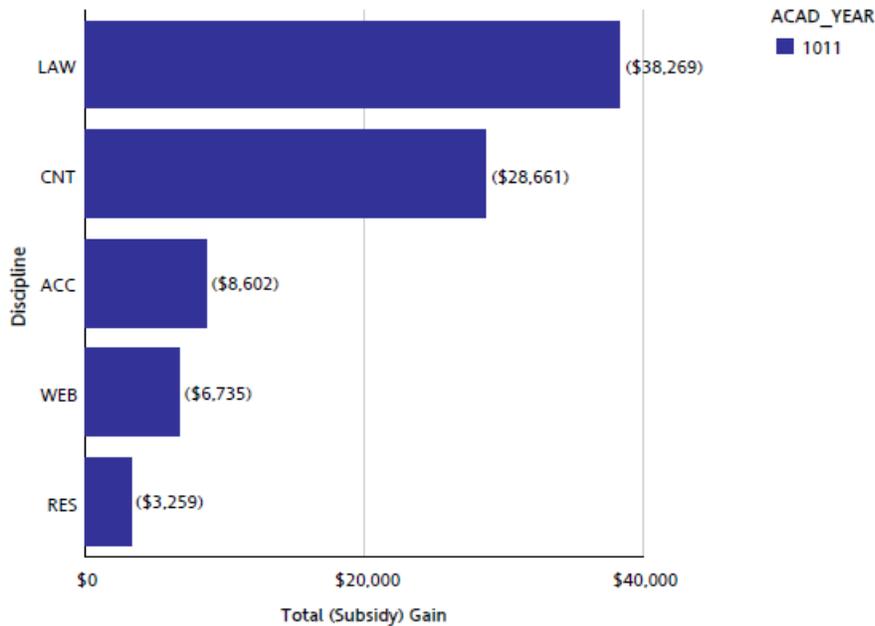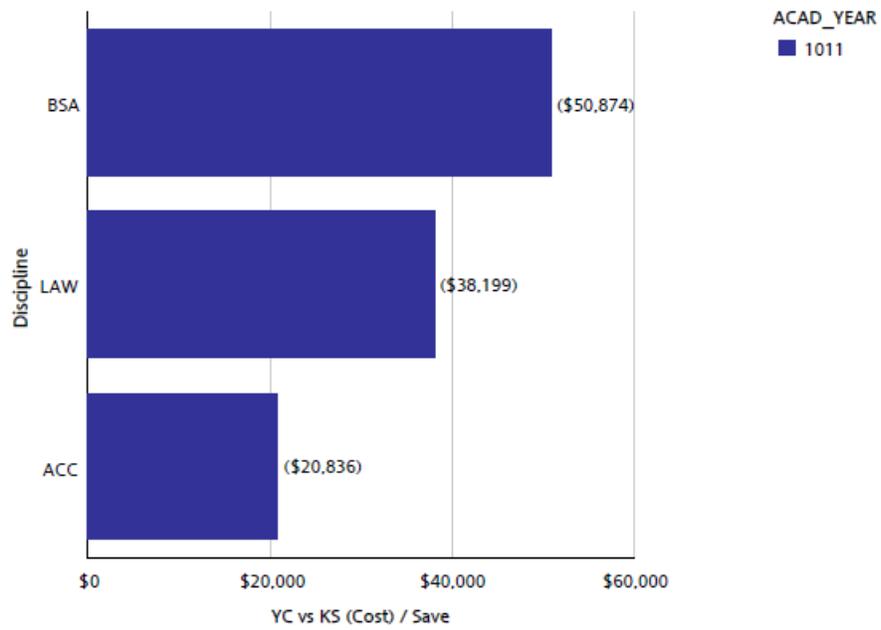
Overall Summary of Academic Disciplines

Business, Computer Science, District Workforce & Economic Development Division

Enrollment Trends

Instructional Degrees and Certifications	Instructional Division	Total SCH AY 2011-12	SCH 5 Year Forecast Comments
Associate of Business	BSCS	3297	Continued steady growth in all Business areas
AAS in Accounting	BSCS	3954	Steady growth
AAS in Computer Networking Technology	BSCS	3329	Steady to excellent growth
AAS in Computing Systems and Applications	BSCS	2208	Steady growth with the re-vamping of the program in the next year 13-14
AAS in Management	BSCS	6900	Steady growth
AAS in Office Administration	BSCS	2813	Steady growth
AAS in Paralegal Studies	BSCS	794	Steady growth with the possibility of much greater growth with marketing to all Northern Arizona
AAS in Video Game Development	BSCS	--	Showing excellent growth in the early stages of this program
Accounting Assistant Certificate	BSCS		Steady
Administrative Office Specialist Certificate	BSCS	2218	Steady
Cisco Networking Specialist Certificate	BSCS	--	Same as degree
Computer Application Specialist Certificate	BSCS	--	Steady
Computer Networking Specialist Certificate	BSCS	--	Same as degree
Legal Office Clerk Certificate	BSCS	602	Re-vamping of this certificate is being done this Spring
Legal Office Secretary Certificate	BSCS	2211	Re-vamping of this degree is being done Spring 2013
Management Certificate	BSCS	--	Steady growth
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	--	Certificate will be deleted
Small Business Entrepreneurship Certificate	BSCS	242	Solid program to connect with the Small Business Development Center
Video Game	BSCS	--	Excellent growth expected

Developer Certificate			
Windows Server Administration Certificate	BSCS	3329	Same as CNT degree

Employment Trends

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	Transfer degree
AAS in Accounting	BSCS	Hold steady
AAS in Computer Networking Technology	BSCS	Shows excellent growth
AAS in Computing Systems and Applications	BSCS	Hold steady
AAS in Management	BSCS	Hold steady
AAS in Office Administration	BSCS	Hold steady
AAS in Paralegal Studies	BSCS	Hold steady
AAS in Video Game Development	BSCS	Shows excellent growth
Accounting Assistant Certificate	BSCS	Same as accounting degree
Administrative Office Specialist Certificate	BSCS	Same as office administration degree
Cisco Networking Specialist Certificate	BSCS	Same as CNT degree
Computer Application Specialist Certificate	BSCS	Same as office administration degree
Computer Networking Specialist Certificate	BSCS	Same as CNT degree
Legal Office Clerk Certificate	BSCS	Will be re-vamped this Spring, 2013
Legal Office Secretary Certificate	BSCS	Will be re-vamped this Spring, 2013
Management Certificate	BSCS	Same as management degree
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	Will be deleted this Spring, 2013
Small Business Entrepreneurship Certificate	BSCS	Connects well with the SBDC for entrepreneurs

Video Game Developer Certificate	BSCS	Same as VGD degree
Windows Server Administration Certificate	BSCS	Same as CNT degree

Capital Equipment Needs

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	None at this time.
AAS in Accounting	BSCS	"
AAS in Computer Networking Technology	BSCS	"
AAS in Computing Systems and Applications	BSCS	"
AAS in Management	BSCS	"
AAS in Office Administration	BSCS	"
AAS in Paralegal Studies	BSCS	"
AAS in Video Game Development	BSCS	"
Accounting Assistant Certificate	BSCS	"
Administrative Office Specialist Certificate	BSCS	"
Cisco Networking Specialist Certificate	BSCS	"
Computer Application Specialist Certificate	BSCS	"
Computer Networking Specialist Certificate	BSCS	"
Legal Office Clerk Certificate	BSCS	"
Legal Office Secretary Certificate	BSCS	"
Management Certificate	BSCS	"
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	"
Small Business Entrepreneurship	BSCS	"

Certificate		
Video Game Developer Certificate	BSCS	"
Windows Server Administration Certificate	BSCS	"

Physical Resources/Facility Needs

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	None at this time.
AAS in Accounting	BSCS	"
AAS in Computer Networking Technology	BSCS	"
AAS in Computing Systems and Applications	BSCS	"
AAS in Management	BSCS	"
AAS in Office Administration	BSCS	"
AAS in Paralegal Studies	BSCS	"
AAS in Video Game Development	BSCS	"
Accounting Assistant Certificate	BSCS	"
Administrative Office Specialist Certificate	BSCS	"
Cisco Networking Specialist Certificate	BSCS	"
Computer Application Specialist Certificate	BSCS	"
Computer Networking Specialist Certificate	BSCS	"
Legal Office Clerk Certificate	BSCS	"
Legal Office Secretary Certificate	BSCS	"
Management Certificate	BSCS	"
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	"
Small Business	BSCS	"

Entrepreneurship Certificate		
Video Game Developer Certificate	BSCS	"
Windows Server Administration Certificate	BSCS	"

Technology Needs

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	Applies to all our programs – as technology changes it will affect all of our programs.
AAS in Accounting	BSCS	"
AAS in Computer Networking Technology	BSCS	"
AAS in Computing Systems and Applications	BSCS	"
AAS in Management	BSCS	"
AAS in Office Administration	BSCS	"
AAS in Paralegal Studies	BSCS	"
AAS in Video Game Development	BSCS	"
Accounting Assistant Certificate	BSCS	"
Administrative Office Specialist Certificate	BSCS	"
Cisco Networking Specialist Certificate	BSCS	"
Computer Application Specialist Certificate	BSCS	"
Computer Networking Specialist Certificate	BSCS	"
Legal Office Clerk Certificate	BSCS	"
Legal Office Secretary Certificate	BSCS	"

Management Certificate	BSCS	"
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	"
Small Business Entrepreneurship Certificate	BSCS	"
Video Game Developer Certificate	BSCS	"
Windows Server Administration Certificate	BSCS	"

Staffing Needs

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	None are anticipated in all areas except VGD unless there is an unusual amount of growth in any one area.
AAS in Accounting	BSCS	"
AAS in Computer Networking Technology	BSCS	"
AAS in Computing Systems and Applications	BSCS	"
AAS in Management	BSCS	"
AAS in Office Administration	BSCS	"
AAS in Paralegal Studies	BSCS	"
AAS in Video Game Development	BSCS	There are no full-time faculty/staff in this growing area. There will be a need for at least one full-time staff/faculty within the next 2 years. Growth could dictate up to 2 more staff/faculty within 5 years.
Accounting Assistant Certificate	BSCS	None at this time.
Administrative Office Specialist Certificate	BSCS	"
Cisco Networking Specialist Certificate	BSCS	"
Computer Application Specialist Certificate	BSCS	"
Computer Networking Specialist Certificate	BSCS	"

Legal Office Clerk Certificate	BSCS	"
Legal Office Secretary Certificate	BSCS	"
Management Certificate	BSCS	"
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	"
Small Business Entrepreneurship Certificate	BSCS	"
Video Game Developer Certificate	BSCS	"
Windows Server Administration Certificate	BSCS	"

Professional Development Needs

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	All areas will have the need to go to a conference annually or bi-annually.
AAS in Accounting	BSCS	"
AAS in Computer Networking Technology	BSCS	As technology changes in this area there could very well be some very expensive training that will be needed.
AAS in Computing Systems and Applications	BSCS	"
AAS in Management	BSCS	"
AAS in Office Administration	BSCS	"
AAS in Paralegal Studies	BSCS	"
AAS in Video Game Development	BSCS	"
Accounting Assistant Certificate	BSCS	"
Administrative Office Specialist Certificate	BSCS	"
Cisco Networking Specialist Certificate	BSCS	"
Computer Application Specialist Certificate	BSCS	"
Computer	BSCS	"

Networking Specialist Certificate		
Legal Office Clerk Certificate	BSCS	"
Legal Office Secretary Certificate	BSCS	"
Management Certificate	BSCS	"
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	"
Small Business Entrepreneurship Certificate	BSCS	"
Video Game Developer Certificate	BSCS	"
Windows Server Administration Certificate	BSCS	"

Projections and Plans for the Future

Instructional Degrees and Certifications	Instructional Division	Comments
Associate of Business	BSCS	Because of the nature of business and computing, technology will not only drive how classes will be delivered but what will be taught. Teaching new technology will drive all areas in this division.
AAS in Accounting	BSCS	"
AAS in Computer Networking Technology	BSCS	"
AAS in Computing Systems and Applications	BSCS	"
AAS in Management	BSCS	"
AAS in Office Administration	BSCS	
AAS in Paralegal Studies	BSCS	"
AAS in Video Game Development	BSCS	"
Accounting Assistant Certificate	BSCS	"
Administrative Office Specialist Certificate	BSCS	"
Cisco Networking Specialist Certificate	BSCS	"

Computer Application Specialist Certificate	BSCS	"
Computer Networking Specialist Certificate	BSCS	"
Legal Office Clerk Certificate	BSCS	"
Legal Office Secretary Certificate	BSCS	"
Management Certificate	BSCS	"
Paralegal Studies – Legal Nurse & Post Degree Certificate	BSCS	"
Small Business Entrepreneurship Certificate	BSCS	"
Video Game Developer Certificate	BSCS	"
Windows Server Administration Certificate	BSCS	"

Associate of Business
The Associate of Business degree requires completion of 62 credit hours. Although students often have the option of entering a career field upon completion of the Associate of Business degree, this degree plan is primarily designed to provide the first two years of coursework to prepare students for transfer into a related upper division baccalaureate degree program.

Thirty-five hours of coursework are concentrated in **general education**. At Yavapai College the Arizona General Education Curriculum (AGEC-B) is embedded in the Associate of Business degree. Arizona General Education (AGEC) special requirements incorporate additional university requirements in Intensive Writing/Critical Inquiry (IWR), Ethnic/Race/Gender (ERG) awareness, and Global/International and Historical (GIH) awareness areas. Upon completion of all 35 credit hours (including the special requirements) of the AGEC with a grade of "C" of higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGEC upon admission to one of the state universities in Arizona.

The core curriculum consists of four parts: (A) Foundation Studies include critical literacy, precise writing, qualitative thinking, and the process of analysis and synthesis that underlie logical reasoning; (B) Core Studies focus on the conceptual frameworks through which a thinker, a culture, or an academic discipline may approach an issue; (C) Area Studies link foundation skills in thinking and communicating and the core emphasis on conceptual frameworks to the content orientation of academic disciplines; (D) Computer Systems and Applications.

Three credit hours of **communications** coursework are required for this degree. Twenty-four credit hours of coursework in this degree are in **major** and **elective studies**. This aspect of the degree affords the student an opportunity to begin work on a major area of study.

Students preparing to transfer to an upper-division baccalaureate degree program should contact an advisor in the major field of study at the transfer institution in addition to meeting regularly with a faculty advisor and/or counselor at Yavapai College. Regular advisement is important to build an educational plan and ensure transferability of general education, elective, and major courses. Students intending to transfer to one of the Arizona public universities can obtain specific information on transferability of courses from the Course Equivalency Guide and curriculum transfer guides available from academic advisors. Transfer guides are also available from each university's web site.

Note:

*AGEC Special Awareness Requirements Students must complete a course from each of the following areas:

- *Intensive Writing/Critical Inquiry (IWR)*
- *Ethnic/Race/Gender (ERG) awareness*
- *Global/International or Historical (GIH) awareness*

Associate of Business Degree
Associate of Applied Science in Management Degree

Mission Statement
The Business Department provides an innovative and supportive teaching environment for student success in learning to enable students to:

- Transfer to other institutions
- Obtain a Yavapai College degree and/or certificate
- Obtain desired employment
- Improve current skills
- Seek enrichment

For purposes of this report we have combined the data from the Associate of Business degree (AB) and the Associate of Applied Science in Management (Management). The AB is designed for the student who is transferring and typically the Management degree was thought of as non-transferable, terminal degree. Northern Arizona University and Arizona State University have now set up programs that will accept this AAS degree in its entirety as well as other AAS degrees. Both degrees can now prepare students for all the same careers and predictions for the future jobs in this area is the same. In addition, any of the subject areas addressed in this report would be the same for each category.

Graduate Summary

Business AB Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Business	Associate of Business	23	19	24	22	22	110
Business	Associate of Science	1					1

Management AAS Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Management	Associate of Applied Science	1	8	9	16	13	47
Management	Certificate <1 yr.	8	41	19	20	21	109
Retail Management	Certificate <1 yr.		3				3
Retail Management	Certificate >1 yr.		1			1	2
Small Business Entrepreneurship Certificate Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Small Business Entrepreneur	Certificate <1 yr.			6	1		7
Small Business	Certificate <1 yr.	3	2				5

Enrollment Trend

Business AB				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	18	18	16	16
Enrollment	412	461	429	499
Avg. Class Size	22.9	25.6	26.8	31.2
Total SCH	1306.0	1484.0	1287.0	1497.0
SCH by Location				
Prescott	510.0	397.0	186.0	87.0
Verde Valley	73.0	110.0	57.0	
Online	723.0	977.0	1044.0	1410.0
Enrollee Success				
%Successful	79%	79%	76%	0%
Enrollee success equals a letter grade of A,B,C, or S.				
Fall 2012 Academic Period may be incomplete.				

Management AAS				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	44	44	41	41
Enrollment	1037	1066	1052	1088
Avg. Class Size	23.6	24.2	25.7	26.5
Total SCH	2977.0	3062.0	3018.0	3146.0
SCH by Location				
Prescott	1138.0	1121.0	849.0	623.0
Verde Valley	195.0	219.0	222.0	108.0
Prescott Valley	45.0	66.0	69.0	
Sedona	42.0			
Online	1464.0	1578.0	1854.0	2205.0
Dual Enrollment	21.0	18.0	24.0	
Enrollee Success				
%Successful	77%	74%	73%	1%
Enrollee success equals a letter grade of A,B,C, or S.				
Fall 2012 Academic Period may be incomplete.				

Business AB			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	16	16	16
Enrollment	469	465	512
Avg. Class Size	29.3	29.1	32.0
Total SCH	1503.0	1480.0	1536.0
SCH by Location			
Prescott	466.0	251.0	54.0
Verde Valley	12.0	6.0	
Online	1022.0	1184.0	1395.0
Dual Enrollment	3.0	39.0	87.0
Enrollee Success			
%Successful	74%	75%	76%
Enrollee success equals a letter grade of A,B,C, or S.			

Management AAS			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	44	44	40
Enrollment	991	1038	1067
Avg. Class Size	22.5	23.6	26.7
Total SCH	2973.0	3114.0	3201.0
SCH by Location			
Prescott	1011.0	903.0	441.0
Verde Valley	189.0	258.0	171.0
Prescott Valley	54.0		
Online	1680.0	1860.0	2415.0
Dual Enrollment	18.0	48.0	174.0
Enrollee Success			
%Successful	75%	77%	77%

Enrollee success equals a letter grade of A,B,C, or S.

Business AB			
	Summer 2010	**Summer 2011**	**Summer 2012**
District			
Sections	5	5	5
Enrollment	142	145	158
Avg. Class Size	28.4	29.0	31.6
Total SCH	454.0	460.0	474.0
SCH by Location			
Online	454.0	460.0	474.0
Enrollee Success			
%Successful	85%	87%	87%

Enrollee success equals a letter grade of A,B,C, or S.

Management AAS			
	Summer 2010	**Summer 2011**	**Summer 2012**
District			
Sections	10	8	8
Enrollment	214	251	227
Avg. Class Size	21.4	31.4	28.4
Total SCH	642.0	753.0	681.0
SCH by Location			
Prescott	6.0		
Verde Valley	3.0		
Online	633.0	753.0	651.0
Enrollee Success			
%Successful	83%	85%	81%

Enrollee success equals a letter grade of A,B,C, or S.

Business AB				
	AY 2009-10	**AY 2010-11**	**AY 2011-12**	**AY 2012-13***
District				
Sections	39	39	37	16
Enrollment	1023	1071	1099	499
Avg. Class Size	26.2	27.5	29.7	31.2
Total SCH	3263.0	3424.0	3297.0	1497.0
SCH by Location				
Prescott	976.0	648.0	240.0	87.0
Verde Valley	85.0	116.0	57.0	
Online	2199.0	2621.0	2913.0	1410.0
Dual Enrollment	3.0	39.0	87.0	
Enrollee Success				
%Successful	78%	78%	78%	0%

Enrollee success equals a letter grade of A,B,C, or S.

AY 2012-13 Academic Period may be incomplete.

Management AAS				
	AY 2009-10	**AY 2010-11**	**AY 2011-12**	**AY 2012-13***
District				
Sections	98	96	89	41
Enrollment	2242	2355	2346	1088
Avg. Class Size	22.9	24.5	26.4	26.5
Total SCH	6592.0	6929.0	6900.0	3146.0
SCH by Location				
Prescott	2155.0	2024.0	1290.0	623.0
Verde Valley	387.0	477.0	393.0	108.0
Prescott Valley	99.0	66.0	69.0	
Sedona	42.0			
Online	3777.0	4191.0	4920.0	2205.0
Dual Enrollment	39.0	66.0	198.0	
Enrollee Success				
%Successful	76%	76%	76%	1%
Enrollee success equals a letter grade of A,B,C, or S.				
AY 2012-13 Academic Period may be incomplete.				

Course Enrollment

Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
Business AB - Academic Year 2011-12							
ACC131	5	23.8	119	357.0	68%	12%	20%
ACC132	3	24.0	72	216.0	78%	7%	15%
BSA131	9	28.1	253	759.0	76%	20%	4%
BSA232	2	27.0	54	162.0	89%	7%	4%
BSA233	5	22.6	113	339.0	81%	5%	14%
BSA234	1	14.0	14	42.0	64%	29%	7%
BSA235	5	37.2	186	558.0	77%	16%	7%
BSA236	5	33.8	169	507.0	81%	14%	5%
BSA237	2	36.5	73	219.0	82%	15%	3%

Cross-listed courses counted as individaul course sections (not merged).

Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U

Incomplete student courses excluded from Success measures

Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
Management AAS - Academic Year 2011-12								

Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
ACC121	12	24.1	289	867.0	58%	18%	23%
BSA111	1	23.0	23	23.0	100%	0%	0%
BSA112	1	24.0	24	24.0	96%	0%	4%
BSA113	1	22.0	22	22.0	82%	0%	18%
BSA120	3	22.0	66	198.0	73%	6%	21%
BSA131	9	28.1	253	759.0	76%	20%	4%
BSA132	4	26.3	105	315.0	86%	6%	9%
BSA140	2	25.0	50	150.0	76%	2%	22%
BSA220	4	20.5	82	246.0	84%	12%	2%
BSA221	3	16.7	50	150.0	72%	14%	14%
BSA223	3	23.3	70	210.0	86%	10%	4%
BSA229	1	25.0	25	75.0	84%	4%	12%
BSA230	2	24.5	49	147.0	67%	8%	24%
BSA232	2	27.0	54	162.0	89%	7%	4%
BSA233	5	22.6	113	339.0	81%	5%	14%
BSA235	5	37.2	186	558.0	77%	16%	7%
BSA236	5	33.8	169	507.0	81%	14%	5%
BSA237	2	36.5	73	219.0	82%	15%	3%
BSA296	1	1.0	1	3.0	100%	0%	0%
CSA110	9	24.9	224	672.0	74%	16%	10%
CSA126	14	24.6	345	1035.0	72%	15%	13%

*Cross-listed courses counted as individaul course sections (not merged).

Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U

Incomplete student courses excluded from Success measures

Management AAS - Annual Student Credit Hour Forecast						
Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
ACC121	926.4	922.2	918.0	913.8	909.6	-4.2	-0.14
BSA111	20.6	14.8	9.0	3.2	-2.6	-5.8	-0.66
BSA112	21.6	16.7	11.8	6.9	2.0	-4.9	-0.63
BSA113	18.9	14.6	10.3	6.0	1.7	-4.3	-0.52
BSA120	266.3	240.8	215.3	189.8	164.3	-25.5	-0.57
BSA131	768.6	742.8	717.0	691.2	665.4	-25.8	-0.81
BSA132	268.8	266.4	264.0	261.6	259.2	-2.4	-0.07
BSA140	170.7	152.1	133.5	114.9	96.3	-18.6	-0.46
BSA220	232.7	227.0	221.3	215.6	209.9	-5.7	-0.12
BSA221	145.4	118.1	90.8	63.5	36.2	-27.3	-0.69
BSA223	192.5	184.4	176.3	168.2	160.1	-8.1	-0.20
BSA229	113.4	112.2	111.0	109.8	108.6	-1.2	-0.03
BSA230	144.9	128.7	112.5	96.3	80.1	-16.2	-0.51
BSA232	173.3	168.8	164.3	159.8	155.3	-4.5	-0.29
BSA233	309.2	348.5	387.8	427.1	466.4	39.3	0.62
BSA235	535.1	507.2	479.3	451.4	423.5	-27.9	-0.72
BSA236	513.3	489.9	466.5	443.1	419.7	-23.4	-0.81
BSA237	207.5	178.4	149.3	120.2	91.1	-29.1	-0.80
BSA296	6.6	1.8	-3.0	-7.8	-12.6	-4.8	-0.74
CSA110	766.2	819.6	873.0	926.4	979.8	53.4	0.54
CSA126	939.5	958.4	977.3	996.2	1015.1	18.9	0.36

Management AAS - Historical Student Credit Hour Trend						
Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
ACC121	936.0	894.0	909.0	990.0	867.0	-4.2	-0.14
BSA111	52.0	24.0	16.0	24.0	23.0	-5.8	-0.66
BSA112	50.0	21.0	21.0	24.0	24.0	-4.9	-0.63
BSA113	47.0	13.0	30.0	20.0	22.0	-4.3	-0.52
BSA120	315.0	381.0	333.0	360.0	198.0	-25.5	-0.57
BSA131	849.0	882.0	780.0	804.0	759.0	-25.8	-0.81
BSA132	270.0	339.0	222.0	225.0	315.0	-2.4	-0.07
BSA140	219.0	258.0	96.0	210.0	150.0	-18.6	-0.46
BSA220	330.0	114.0	240.0	225.0	246.0	-5.7	-0.12
BSA221	285.0	171.0	120.0	168.0	150.0	-27.3	-0.69
BSA223	222.0	240.0	75.0	183.0	210.0	-8.1	-0.20
BSA229	42.0	231.0	114.0	153.0	75.0	-1.2	-0.03
BSA230	234.0	147.0	93.0	159.0	147.0	-16.2	-0.51
BSA232	198.0	162.0	219.0	189.0	162.0	-4.5	-0.29
BSA233	204.0	117.0	87.0	240.0	339.0	39.3	0.62
BSA235	639.0	657.0	519.0	540.0	558.0	-27.9	-0.72
BSA236	618.0	555.0	507.0	543.0	507.0	-23.4	-0.81
BSA237	327.0	300.0	342.0	225.0	219.0	-29.1	-0.80
BSA296	24.0	21.0	30.0	15.0	3.0	-4.8	-0.74
CSA110	468.0	681.0	882.0	807.0	672.0	53.4	0.54
CSA126	873.0	960.0	957.0	825.0	1035.0	18.9	0.36

Enrollment Forecast

Business AB - Annual Student Credit Hour Forecast						
Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
ACC131	416.4	396.2	376.0	355.8	335.6	-20.2	-0.38
ACC132	276.4	265.2	254.0	242.8	231.6	-11.2	-0.31
BSA131	768.6	742.8	717.0	691.2	665.4	-25.8	-0.81
BSA232	173.3	168.8	164.3	159.8	155.3	-4.5	-0.29
BSA233	309.2	348.5	387.8	427.1	466.4	39.3	0.62
BSA234	41.7	44.1	46.5	48.9	51.3	2.4	0.53
BSA235	535.1	507.2	479.3	451.4	423.5	-27.9	-0.72
BSA236	513.3	489.9	466.5	443.1	419.7	-23.4	-0.81
BSA237	207.5	178.4	149.3	120.2	91.1	-29.1	-0.80

Business AB - Historical Student Credit Hour Trend						
Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
ACC131	508.0	396.0	560.0	496.0	357.0	-20.2	-0.38
ACC132	304.0	284.0	216.0	348.0	216.0	-11.2	-0.31
BSA131	849.0	882.0	780.0	804.0	759.0	-25.8	-0.81
BSA232	198.0	162.0	219.0	189.0	162.0	-4.5	-0.29
BSA233	204.0	117.0	87.0	240.0	339.0	39.3	0.62
BSA234	27.0	45.0	33.0	39.0	42.0	2.4	0.53
BSA235	639.0	657.0	519.0	540.0	558.0	-27.9	-0.72
BSA236	618.0	555.0	507.0	543.0	507.0	-23.4	-0.81
BSA237	327.0	300.0	342.0	225.0	219.0	-29.1	-0.80

Employment Trends

There are four different charts that follow. All of the areas covered by the EMSI data could potentially be areas that our graduates could be employed in and particularly if those students went on to get bachelor degrees all of the areas addressed by the EMSI data would apply. It would be important to note that there is anywhere from steady growth to excellent growth particularly in the area of Small Business Administration/Management.
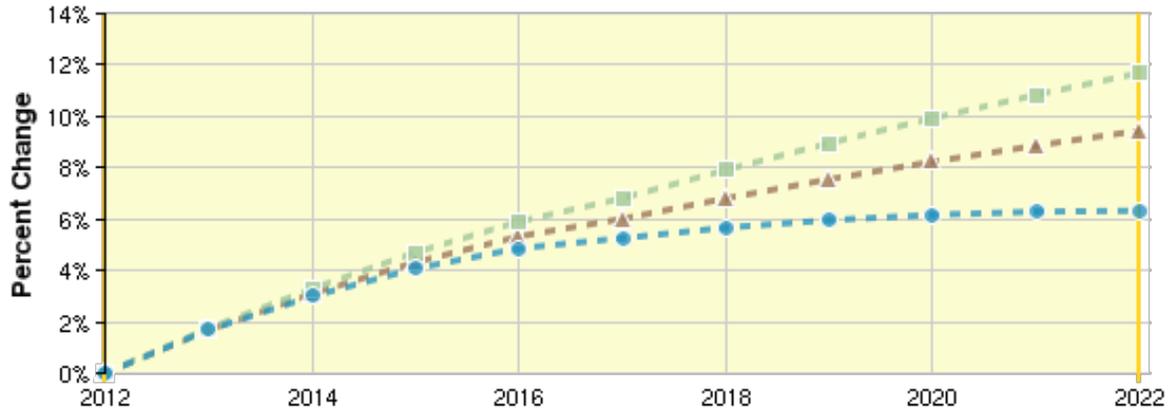
Business, Commerce, General

	Region	2012 Jobs	2022 Jobs	% Change
	Yavapai County - All Shared	3,704	3,954	6.7%
	Nation	7,116,451	7,971,817	12.0%
	State	140,563	153,913	9.5%

Source: Economic Modeling Specialists, Inc. November 2012

Business, Administration, and Management, General

	Region	2012 Jobs	2022 Jobs	% Change
	Yavapai County - All Shared	4,130	4,391	6.3%
	Nation	7,788,925	8,699,326	11.7%
	State	154,171	168,731	9.4%

Source: Economic Modeling Specialists, Inc. November 2012

Business, Management, and Operations

Region	2012 Jobs	2022 Jobs	% Change
Yavapai County - All Shared	1,481	1,777	20.0%
Nation	2,271,620	2,599,890	14.5%
State	42,451	49,829	17.4%

Source: Economic Modeling Specialists, Inc. November 2012

Small Business Administration/Management
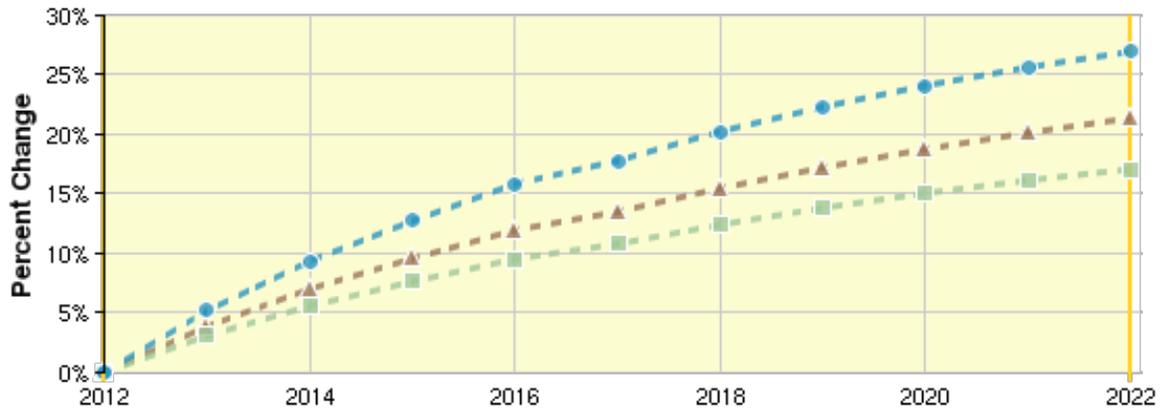
	Region	2012 Jobs	2022 Jobs	% Change
	Yavapai County - All Shared	1,055	1,339	27.0%
	Nation	1,599,146	1,872,381	17.1%
	State	28,844	35,011	21.4%

Source: Economic Modeling Specialists, Inc. November 2012

There is no question that the world of business is moving through rapid and profound change. This change has implications for the way the Business Division structures and delivers its offerings. The Bureau of Labor Statistics (BLS) reports the following employment trends for 2010-2020:[1]

- The office and administrative support occupations group is expected to add the largest number of new jobs.
- Almost eighty percent of new jobs will *at most* require the Associate Degree. About two-thirds of these do not require postsecondary education for entry.
- Of the occupations that will account for the largest number of new jobs, only five will require the Associate Degree or higher; of these only one occupation is marginally attached to business (accounting/auditing).

The BLS data do not adequately pick up emerging entrepreneurial trends. There are many sources that project this activity as a growth sector.[2] In large measure this trend is driven by the resource mobility created by rapid advances in technology. Advances in technology also mean even the smallest firms may compete on the global stage. MIT professors Brynjolfsson and McAfee call these firms "micro-multinationals"—firms with less than a dozen employees that sell to customers worldwide—in stark contrast to the large, multinational firms of the Twentieth Century.[3]

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[1] http://bls.gov/news.release/ecopro.nr0.htm.

[2] See David B. Audretsch, *The Entrepreneurial Society* (Oxford, New York: Oxford University Press, 2007).

[3] See Erik Brynjolfsson and Andrew McAfee, *Race Against the Machine* (Lexington, Massachusetts: Digital Frontier Press, 2011).

Today's professional literature includes words and phrases such as:

- Service; knowledge economy
- Learn outside class; observant of change; monitor
- Strategic reading
- Flat organization
- Demonstrated value added
- Location does not matter
- Informal education is abundant
- Work is on demand; Contract relationships
- The future of work is you
- No boundaries
- Process information
- Critical thinking
- Micro-multinationals (as opposed to multinational corporations)
- Hire the essential, outsource the rest
- Develop new skills
- Entrepreneurial skills

The Business Administration Program within the Business Administration/Computer Science Division at Yavapai College is standard and traditional. It is adequate as a transfer model and in keeping with its community mandate the Division should retain this model. Arguably, the model's relevance may be in a state of decline, given current market dynamics that are addressed above.

Additionally, we are in *the knowledge economy* that values human capital as well as entrepreneurial capital.

In general, the trends we are witnessing are strongly influenced by the fact that the cost of higher education is increasing at a significant clip while median, real pay has leveled or even declined.
Today, the field is wide open. The Division may wish to create a parallel track to its degree program that does not lead to a degree or even to certification. This track could include studies and emphases in:

- the online/cloud enterprise
- entrepreneurship
- case studies in *The New Economy*
- office and business technology
- critical thinking

If the Division follows a track like this it will need to heavily promote and market the intent and outcomes of this option.

Capital Equipment Needs
In today's environment, the importance of equipment is growing relative to that of facilities. Students need access to the most up to date computer equipment and technology as possible. Faculty requires similar support.

Physical Resources/Facility Needs

Since a growing percentage of courses are operated through the online platform it would appear that physical resources are currently adequate.

Technology Needs

See the discussion under "Capital Equipment Needs."

Staffing Needs

It appears staffing is adequate at this time and for the foreseeable future. However, depending upon what direction the Division takes with respect to course offerings, it may need to employ selected adjunct Faculty for specialty courses, e.g. "The e-Bay Driven Business."

Professional Development Needs

It is important that Faculty stays on top of changes in global business, economics, and technology. Professional growth support is important and appears to be adequate at this time.

Partnerships

One would never argue against academe/business/community partnerships. However, the more restrictive academe/business connection may become less important as firms become flatter, smaller, and more entrepreneurial.

Program Outcomes

Students awarded a degree or certificate by the Business Department at Yavapai College will be able to:

1. Define a problem, identify possible solutions, and follow each through to a logical solution.
2. Communicate ideas clearly and effectively;
3. Work as a member of a team in a business environment to accomplish the goals of the organization;
4. Identify and evaluate technology needs, and apply and adapt required skills to the rapidly changing business community; and
5. Gain the knowledge and skills to obtain their educational goals.

Projections and Plans for the Future

See the discussion under "Employment Trends."

Associate of Applied Science in Accounting Degree
Accounting Assistant Certificate

Mission Statement
The mission of the Yavapai College Accounting Program is to:
1. Prepare students for successful, productive employment in accounting and related fields.
2. Provide an environment in which existing accounting skills are upgraded, and new skills are learned.
3. Prepare students for successful transfer to business and accounting programs at other institutions.

Graduate Summary

Accounting AAS Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Accounting	Associate of Applied Science	4	7	5	8	16	40
Accounting Assistant	Certificate <1 yr.	3					3
Accounting Assistant	Certificate >1 yr.			1	2	7	10

The trend in the number of graduates have sharply increased in the past academic year, however, the net number of graduates has remained fairly low. The accounting department supports a number of other BuCS programs as indicated in the table below. Specifically, the department supports twelve sections of ACC 121 (SCH 867) which is a required class in three non-accounting programs as well as being a prerequisite for ACC 131. In addition, ACC 131 and 132 are required classes in two non-accounting programs, and when broken down by percentage, over three-quarters of the students in these two classes attend as non-accounting majors.

		07-08 grads	08-09 grads	09-10 grads	10-11 grads	11-12 grads	Total grads 07-11			
AAS	Accounting	4	8	6	2	12	32	17.4%		
Cert.	Accounting Assistant	3		1	2	6	12	6.5%	23.9%	
AAS	Management	6	13	5	9	12	45	24.5%		ACC 131/132
ABuS	Business	22	22	23	14	14	95	51.6%	76.1%	ACC 131/132
							184			
AAS	Office Administration	6	6	4	3	2	21	ACC 121		
Cert.	Admin Office Specialist	2	1	4	3	2	12	ACC 121		
Cert.	Management	17	18	15	17	12	79	ACC 121		

Enrollment Trends

Accounting AAS				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	25	25	24	21
Enrollment	506	512	578	553
Avg. Class Size	20.2	20.5	24.1	26.3
Total SCH	1569.0	1608.0	1714.0	1663.0
SCH by Location				
Prescott	438.0	263.0	351.0	162.0
Verde Valley	142.0	206.0	66.0	66.0
Prescott Valley	45.0	66.0	69.0	
Sedona	42.0			
Online	881.0	1055.0	1204.0	1435.0
Dual Enrollment	21.0	18.0	24.0	
Enrollee Success				
%Successful	78%	72%	75%	0%

Enrollee success equals a letter grade of A,B,C, or S.

Fall 2012 Academic Period may be incomplete.

Accounting AAS			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	22	22	25
Enrollment	538	563	597
Avg. Class Size	24.5	25.6	23.9
Total SCH	1734.0	1793.0	1802.0
SCH by Location			
Prescott	397.0	236.0	138.0
Verde Valley	87.0	74.0	123.0
Prescott Valley	54.0		
Online	1193.0	1444.0	1454.0
Dual Enrollment	3.0	39.0	87.0
Enrollee Success			
%Successful	74%	76%	77%

Enrollee success equals a letter grade of A,B,C, or S.

Accounting AAS			
	Summer 2010	**Summer 2011**	**Summer 2012**
District			
Sections	5	5	5
Enrollment	146	144	146
Avg. Class Size	29.2	28.8	29.2
Total SCH	466.0	457.0	438.0
SCH by Location			
Online	466.0	457.0	438.0
Enrollee Success			
%Successful	79%	78%	79%

Enrollee success equals a letter grade of A,B,C, or S.

Accounting AAS				
	AY 2009-10	AY 2010-11	AY 2011-12	AY 2012-13*
District				
Sections	52	52	54	21
Enrollment	1190	1219	1321	553
Avg. Class Size	22.9	23.4	24.5	26.3
Total SCH	3769.0	3858.0	3954.0	1663.0
SCH by Location				
Prescott	835.0	499.0	489.0	162.0
Verde Valley	229.0	280.0	189.0	66.0
Prescott Valley	99.0	66.0	69.0	
Sedona	42.0			
Online	2540.0	2956.0	3096.0	1435.0
Dual Enrollment	24.0	57.0	111.0	
Enrollee Success				
%Successful	76%	74%	76%	0%

Enrollee success equals a letter grade of A,B,C, or S.

AY 2012-13 Academic Period may be incomplete.

The data reflects steady enrollment in the accounting program and with the increase in number of graduates, the number of enrollees is predicted to remain constant over the next several years, even with the slight negative trend indicated in the core classes (ACC 131/132). Online enrollment is by far the most common delivery method, and it is predicted that this trend will continue as well.

	SCH 2011-2012	
Prescott	489	12%
Verde	189	5%
Prescott Valley	69	2%
Online	**3,096**	**78%**
Dual Enrollment (class)	111	3%
	3,954	100%

Course Enrollment

Accounting AAS - Academic Year 2011-12							
Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
ACC115	2	28.0	56	168.0	61%	0%	39%
ACC116	1	18.0	18	72.0	72%	6%	22%
ACC122	2	27.5	55	165.0	89%	0%	11%
ACC131	5	23.8	119	357.0	68%	12%	20%
ACC132	3	24.0	72	216.0	78%	7%	15%
ACC161	2	20.0	40	80.0	85%	5%	8%
ACC162	2	28.0	56	168.0	77%	11%	13%
ACC217	1	14.0	14	42.0	86%	7%	7%
ACC231	1	13.0	13	52.0	77%	0%	23%
ACC296	3	2.0	6	18.0	100%	0%	0%
BSA131	9	28.1	253	759.0	76%	20%	4%
BSA132	4	26.3	105	315.0	86%	6%	9%
BSA236	5	33.8	169	507.0	81%	14%	5%
CSA126	14	24.6	345	1035.0	72%	15%	13%

Cross-listed courses counted as individaul course sections (not merged).

Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U

Incomplete student courses excluded from Success measures

Course Forecast

Accounting AAS - Historical Student Credit Hour Trend						
Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
ACC115	192.0	162.0	189.0	207.0	168.0	-0.3	-0.03
ACC116	68.0	44.0	84.0	92.0	72.0	5.6	0.48
ACC122	120.0	63.0	102.0	123.0	165.0	15.0	0.64
ACC131	508.0	396.0	560.0	496.0	357.0	-20.2	-0.38
ACC132	304.0	284.0	216.0	348.0	216.0	-11.2	-0.31
ACC161	66.0	88.0	44.0	70.0	80.0	1.0	0.09
ACC162	18.0	30.0	16.0	24.0	168.0	29.4	0.71
ACC217	27.0	15.0	36.0	45.0	42.0	6.0	0.78
ACC231	36.0	36.0	56.0	56.0	52.0	5.2	0.79
ACC296		3.0			18.0	Insufficient Data	
BSA131	849.0	882.0	780.0	804.0	759.0	-25.8	-0.81
BSA132	270.0	339.0	222.0	225.0	315.0	-2.4	-0.07
BSA236	618.0	555.0	507.0	543.0	507.0	-23.4	-0.81
CSA126	873.0	960.0	957.0	825.0	1035.0	18.9	0.36

The historical data by class must be viewed with the consideration that growth percentages were affected by changes to program requirements starting with the Fall 2011 semester. An additional mitigating factor was a credit hour change in both ACC 131 and 132, from 4 credit hours to 3. The best predictor of overall program growth lies with the trend in capstone course enrollment (ACC 231 and ACC 296), and the growth trend for ACC 231 has been positive.

Accounting AAS - Annual Student Credit Hour Forecast						
Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
ACC115	187.4	187.1	186.8	186.5	186.2	-0.3	-0.03
ACC116	84.8	90.4	96.0	101.6	107.2	5.6	0.48
ACC122	151.5	166.5	181.5	196.5	211.5	15.0	0.64
ACC131	416.4	396.2	376.0	355.8	335.6	-20.2	-0.38
ACC132	276.4	265.2	254.0	242.8	231.6	-11.2	-0.31
ACC161	75.5	76.5	77.5	78.5	79.5	1.0	0.09
ACC162	110.7	140.1	169.5	198.9	228.3	29.4	0.71
ACC217	46.5	52.5	58.5	64.5	70.5	6.0	0.78
ACC231	56.6	61.8	67.0	72.2	77.4	5.2	0.79
ACC296	Insufficient Data						
BSA131	768.6	742.8	717.0	691.2	665.4	-25.8	-0.81
BSA132	268.8	266.4	264.0	261.6	259.2	-2.4	-0.07
BSA236	513.3	489.9	466.5	443.1	419.7	-23.4	-0.81
CSA126	939.5	958.4	977.3	996.2	1015.1	18.9	0.36

Employment Trends

The EMSI data that is listed below shows very solid growth in the field of accounting for the county, state, and country. The EMSI data coincides with the research that was done for this report.

	Region	2012 Jobs	2022 Jobs	% Change
	Yavapai County - All Shared	759	863	13.7%
	Nation	1,888,947	2,190,564	16.0%
	State	33,958	38,294	12.8%

Source: Economic Modeling Specialists, Inc. November 2012

Accounting has fared favorably compared to other professions in terms of job opportunities and attractiveness, particularly during the recent economic decline (The Pathways Commission, *Charting a National Strategy for the Next Generation of Accountants*, 2012, p. 41). Future employment trends in the accounting field are positive, as the Bureau of Labor Statistics predicts a 16% increase in the number of job openings from 2010 to 2020. This growth projection is 2% above the average 14% job growth projected for all occupations (http://www.bls.gov/ooh/business-and-financial/accountants-and-auditors.htm). Demand will be especially high in the tax and health care areas, reflecting the increasing complexity of corporate transactions and growth in government (http://www.careers-in-accounting.com/acfacts.htm). Intuit's 2020 Report (http://about.intuit.com/futureofsmallbusiness/) examines four trends, reflective of larger societal shifts that will reshape the accounting profession in the next decade:

- New opportunities created by shifting business environments. Trends in this category include:
    - Increased competition due to outsourcing and automation, particularly in routine and lower-value services.
    - Globalization will require new skills, knowledge and standards as more clients operate across borders.
    - Increasing numbers of small businesses (an additional 7 million by 2020) will increase the market for accounting firms.
- The changing face of professionals and clients due to demographic shifts. Trends in this area include:
    - Baby boomers who continue to work

- o The maturing of the Gen Y population who are career-and family-oriented, and quick adopters of new technology
  - o More workplace, political and education leadership roles held by women
  - o Minority populations become the majority in several areas of the U.S. making multiculturalism a defining trait of the next decade.
- Technology-driven changes from data processing to decision making. Trends in this area include:
  - o Mobile computing devices will become the main tools for managing work and life tasks
  - o Advance computing power will lead to highly developed automation of data collection and information sharing
  - o More powerful analytical tools and software leading to a shift in the focus of accounting from computing to consulting.
- High-tech enhancements to high-touch client outreach, relationships, and services. Trends in this area include:
  - o Embracing new ways to reach prospects and to support existing clients
  - o Focus on online marketing and mobile presence.
  - o CRM (customer relationship management) systems will automate simple support tasks.

In the next decade, new technologies will drive society's transition to mobile and social commerce and allow consumers and businesses to compete locally and globally. Accounting and tax professionals will shift from a focus on financial statement and tax return prep to consultants providing competitive strategies for clients to navigate the global marketplace. This will require knowledge of international standards, regulations, and processes along with the ability to use social networks and advanced technological tools.

Capital Equipment Needs
It is not expected that capital equipment will need to be purchased in direct support of the accounting program in the next ten years. Indirect support is addressed below in terms of facilities and technology.

Physical Resources/Facility Needs
Accounting classrooms are equipped with tables and chairs, whiteboards, and a screen to display overhead projector images.   Many students utilize YC computer labs and/or libraries to complete online classes, and so continued support of these ancillary facilities is necessary. The majority of our students (78% in 2011-2012) take advantage of online course availability, and so physical facilities are not as important as for some other YC programs.

Technology Needs
Faculty PC workstations with overhead projectors, document cameras, and DVD players are used in the accounting classrooms. Access to the YC network and the Internet is required. Some classes are scheduled in ITV classrooms, so that equipment is a necessary technology component for those sections as well. As the majority of accounting students access their classes online, continued faculty and student support of Blackboard is required. Students' use of cloud computing, particularly for Microsoft Office applications and Computer Accounting Practice (ACC 161) software, is also increasing, and it is predicted that the use of this service will continue to grow as students become more familiar with the capability.

The Accounting Department intends to work towards goals established by the Pathway Commission (2012, p. 75) relative to Action Item 4.1.6: Transform learning experiences to reflect current and emerging technologies and global trends in business. This will entail environmental scanning to stay abreast of trends, professional development to learn to utilize the technology and transform the knowledge into learning experiences for students.

Staffing Needs

The accounting department currently employs one full time professor and an additional CSA professor who teaches an average of two-thirds of her load in the accounting discipline. Three adjunct faculty members cover the remaining courses each semester. At the current enrollment and SCH levels, no additional faculty needs are predicted in the near term.

Professional Development Needs

Accounting faculty members are able to take advantage of a variety of YC instructional support services. These include a dedicated Teaching & eLearning Support department that provides resources and training for educational technology and course design. The College also provides support for the G.I.F.T Center, which provides support for faculty through workshops, presentations, and a dedicated work center where faculty can conference face to face or via teleconference. The TeLS department and G.I.F.T. Center currently sponsors the Summer and Winter Institutes for full time and adjunct faculty. These multiple-day conferences focus on best practices in the classroom, as well as technology topics for enhancing the student learning experience. Professional growth funds are available on a competitive basis that allow faculty to travel to conferences to enhance professional knowledge and network with colleagues. Tuition reimbursement is also available through the Professional Growth Committee, which allows faculty to take accredited classes in their respective field or to fulfill a critical instructional need of the College.

Partnerships

The accounting department currently partners with local K-12 institutions for dual enrollment of ACC 121, Introductory Accounting. The accounting department intends to work towards goals established by the Pathway Commission relative to building on existing high school programs and efforts to enhance accounting curriculum:

- Develop a high school accounting class that is eligible for Advanced Placement (AP) credit
- Advance community college accounting paraprofessional programs
- Encourage continued and expanded efforts to place role models and mentors in high school accounting or business classes
- Encourage continued and expanded efforts to develop shadowing or other employment programs for promising high school students.

The accounting department also collaborates with Catholic Social Services and the IRS to operate VITA tax preparation. Continued collaboration is expected, with possible expansion of partnership opportunities being explored with private industry and public entities. Exploration of additional internship opportunities is also a priority for the accounting department at this time. Finally, a renewed effort to work with area universities for seamless transfer into CPA-track accounting programs is planned as well.

Program Outcomes

Upon successful completion of the Accounting Degree program, the learner will be able to:

1. Apply accounting principles to prepare general purpose financial and tax statements.
2. Identify and analyze ethical issues in business.
3. Synthesize basic accounting theory with financial accounting applications.
4. Utilize critical thinking in addressing accounting applications.
5. Prepare basic income tax returns.

Projections and Plans for the Future

 "Accounting is a vibrant, rapidly changing profession. Its geographic reach is now global, and technology plays an increasingly prominent role. A new generation of students who are more at home with technology has arrived. They need learning experiences connected to core concepts in accounting and emerging questions from practice and scholarship, preparing them to bring new understanding to bear on critical questions and problems of accounting thought and practice" (Pathways, p. 38).

Even though accounting has fared favorably compared to other professions in terms of job opportunities and attractiveness (Pathways, p. 41), the accounting department has and will continue to face a significant challenge in balancing the needs of students looking for skills updates and/or direct employment within Yavapai County with those students who transfer with the intention of pursuing an accounting degree (CPA track) or a more general business or management degree. For example, a majority of students (76%) taking ACC 131/132 are enrolled in non-accounting programs (management and business), and so those students require knowledge and skills transferable to the university setting. The accounting department intends to continue to monitor the needs of both sets of students and make course, program, and technological adjustments as necessary to support a steady enrollment trend.

Associate of Applied Science in Computer Networking Technology Degree
Cisco Networking Specialist Certificate
Computer Networking Technician Certificate

Mission Statement

The mission of Computer Networking Technology programs is to provide students with the knowledge and skills to gain employment in the information technology field and when applicable to prepare students for industry standard information technology certification exams. In addition, the Computer Networking Technology programs prepare students for critical thinking, problem-solving, and life-long learning in the rapidly changing field of information technology.

Graduate Summary

Computer Networking Tech AAS Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Computer Networking Technology	Associate of Applied Science	4	3	6	4	12	29
Computer Networking Technician	Certificate <1 yr.			27	19	40	86
Cisco Networking Specialist	Certificate <1 yr.					8	8
Cisco Networking Technician	Certificate <1 yr.			5		3	8
Computer Networking Technology	Certificate <1 yr.	7	1				8

Window Server Administrator Certificate Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Windows Server Administrator	Certificate <1 yr.					4	4

Enrollment Trend

Computer Networking Tech AAS				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	21	24	30	24
Enrollment	343	435	473	416
Avg. Class Size	16.3	18.1	15.8	17.3
Total SCH	1162.0	1426.0	1568.0	1356.0
SCH by Location				
Prescott	631.0	597.0	658.0	742.0
Verde Valley	88.0	151.0	90.0	
Online	163.0	300.0	367.0	269.0
Dual Enrollment	280.0	378.0	453.0	345.0
Enrollee Success				
%Successful	82%	79%	77%	0%

Enrollee success equals a letter grade of A,B,C, or S.

Fall 2012 Academic Period may be incomplete.

Computer Networking Tech AAS			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	23	29	25
Enrollment	348	495	488
Avg. Class Size	15.1	17.1	19.5
Total SCH	1117.0	1657.0	1556.0
SCH by Location			
Prescott	511.0	571.0	373.0
Verde Valley	90.0	56.0	94.0
Online	288.0	620.0	647.0
Dual Enrollment	228.0	410.0	442.0
Enrollee Success			
%Successful	77%	76%	81%

Enrollee success equals a letter grade of A,B,C, or S.

Computer Networking Tech AAS			
	Summer 2010	**Summer 2011**	**Summer 2012**
District			
Sections	6	2	5
Enrollment	55	30	58
Avg. Class Size	9.2	15.0	11.6
Total SCH	196.0	103.0	205.0
SCH by Location			
Prescott	196.0	103.0	199.0
Online			6.0
Enrollee Success			
%Successful	82%	77%	79%

Enrollee success equals a letter grade of A,B,C, or S.

Computer Networking Tech AAS				
	AY 2009-10	**AY 2010-11**	**AY 2011-12**	**AY 2012-13***
District				
Sections	50	55	60	24
Enrollment	746	960	1019	416
Avg. Class Size	14.9	17.5	17.0	17.3
Total SCH	2475.0	3186.0	3329.0	1356.0
SCH by Location				
Prescott	1338.0	1271.0	1230.0	742.0
Verde Valley	178.0	207.0	184.0	
Online	451.0	920.0	1020.0	269.0
Dual Enrollment	508.0	788.0	895.0	345.0
Enrollee Success				
%Successful	80%	77%	79%	0%

Enrollee success equals a letter grade of A,B,C, or S.

AY 2012-13 Academic Period may be incomplete.

Course Enrollment

Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
Computer Networking Tech AAS - Academic Year 2011-12							
CNT100	10	19.2	192	576.0	78%	14%	8%
CNT110	10	16.6	166	664.0	86%	5%	9%
CNT115	7	21.1	148	592.0	82%	9%	9%
CNT120	5	20.0	100	300.0	82%	13%	5%
CNT121	2	28.0	56	168.0	79%	11%	11%
CNT122	1	20.0	20	80.0	80%	15%	5%
CNT123	1	21.0	21	63.0	90%	5%	5%
CNT135	1	18.0	18	54.0	94%	6%	0%
CNT140	1	17.0	17	68.0	82%	12%	6%
CNT150	1	13.0	13	39.0	92%	8%	0%
CNT160	1	20.0	20	60.0	100%	0%	0%
CNT170	1	21.0	21	63.0	95%	0%	5%
CNT180	2	13.5	27	81.0	41%	19%	37%
CNT220	1	14.0	14	42.0	86%	0%	14%
CNT294	2	9.0	18	36.0	83%	11%	6%
CNT296	7	1.1	8	24.0	88%	13%	0%
CSA161	2	30.5	61	122.0	79%	3%	18%
CSA164	1	21.0	21	63.0	67%	10%	14%
CSA167	1	22.0	22	66.0	59%	9%	32%
CSA282	1	11.0	11	33.0	55%	18%	27%
WEB180	2	12.0	24	72.0	42%	29%	29%

Cross-listed courses counted as individaul course sections (not merged).

Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U

Incomplete student courses excluded from Success measures

Enrollment Forecast

Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
Computer Networking Tech AAS - Annual Student Credit Hour Forecast							
CNT100	592.4	658.1	723.8	789.5	855.2	65.7	0.92
CNT110	626.0	630.0	634.0	638.0	642.0	4.0	0.17
CNT115	587.4	670.2	753.0	835.8	918.6	82.8	0.93
CNT120	283.4	334.1	384.8	435.5	486.2	50.7	0.99
CNT121	170.3	198.8	227.3	255.8	284.3	28.5	0.83
CNT122	78.6	83.8	89.0	94.2	99.4	5.2	0.89
CNT123	55.8	59.4	63.0	66.6	70.2	3.6	0.43
CNT135	48.3	54.9	61.5	68.1	74.7	6.6	0.76
CNT140	109.6	116.8	124.0	131.2	138.4	7.2	0.34
CNT150	69.2	72.5	75.8	79.1	82.4	3.3	0.23
CNT160	65.0	71.9	78.8	85.7	92.6	6.9	0.81
CNT170	66.9	74.7	82.5	90.3	98.1	7.8	0.90
CNT180	72.8	89.3	105.8	122.3	138.8	16.5	0.94
CNT220	Insufficient Data						
CNT294	Insufficient Data						
CNT296	18.8	20.3	21.8	23.3	24.8	1.5	0.48
CSA161	131.7	151.1	170.5	189.9	209.3	19.4	0.77
CSA164	64.7	68.0	71.3	74.6	77.9	3.3	0.39
CSA167	75.9	80.7	85.5	90.3	95.1	4.8	0.56
CSA282	50.7	47.1	43.5	39.9	36.3	-3.6	-0.38
WEB180	42.9	47.7	52.5	57.3	62.1	4.8	0.20

Computer Networking Tech AAS - Historical Student Credit Hour Trend						
Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
CNT100	291.0	456.0	411.0	543.0	576.0	65.7	0.92
CNT110	616.0	640.0	572.0	584.0	664.0	4.0	0.17
CNT115	212.0	432.0	412.0	500.0	592.0	82.8	0.93
CNT120	87.0	135.0	174.0	216.0	300.0	50.7	0.99
CNT121	57.0	81.0	45.0	144.0	168.0	28.5	0.83
CNT122	60.0	60.0	60.0	72.0	80.0	5.2	0.89
CNT123	42.0	51.0	27.0	45.0	63.0	3.6	0.43
CNT135	24.0	30.0	54.0	36.0	54.0	6.6	0.76
CNT140	68.0	72.0	68.0	144.0	68.0	7.2	0.34
CNT150	48.0	45.0	54.0	96.0	39.0	3.3	0.23
CNT160	39.0	36.0	36.0	63.0	60.0	6.9	0.81
CNT170	36.0	39.0	39.0	63.0	63.0	7.8	0.90
CNT180		30.0	36.0	48.0	81.0	16.5	0.94
CNT220					42.0	Insufficient Data	
CNT294					36.0	Insufficient Data	
CNT296	15.0	15.0	12.0	12.0	24.0	1.5	0.48
CSA161	30.0	112.0	120.0	122.0	122.0	19.4	0.77
CSA164		48.0	75.0	63.0	63.0	3.3	0.39
CSA167		54.0	69.0	81.0	66.0	4.8	0.56
CSA282	54.0	66.0	60.0	72.0	33.0	-3.6	-0.38
WEB180		54.0	15.0	9.0	72.0	4.8	0.20

Employment Trends

The EMSI data shows excellent growth in the area of Computer Networking technology but it is not nearly as significant of growth as the research for this area showed. One thing is clear is that there will be continued demand for the skills represented by both of the areas represented with the EMSI data.

Computer Networking Technology

	Region	2012 Jobs	2022 Jobs	% Change
■	Yavapai County - All Shared	355	405	14.1%
■	Nation	1,702,006	2,016,217	18.5%
■	State	35,017	40,150	14.7%

Source: Economic Modeling Specialists, Inc. November 2012

Computer Installation and Repair Technology

	Region	2012 Jobs	2022 Jobs	% Change
	Yavapai County - All Shared	64	65	2.1%
	Nation	242,773	250,073	3.0%
	State	3,630	4,236	16.7%

Source: Economic Modeling Specialists, Inc. November 2012

In 2010 and 2011, government spending drove much of the IT hiring, but in 2012, most of the hiring is due to government mandates such as in healthcare with electronic records requirements, and the finance industry. Going forward, key skills will include virtualization and mobile computing networks. By 2020, employment in all computer occupations is expected to increase by 22%, according to the BLS. The CNT department targets the following categories of computer occupation and the projected growth through 2020 is shown:

- Network and computer system admins: 28%
- Information Security Analyst: 22%
- Computer support specialists: 18%

Capital Equipment Needs
The CNT department does not use a lot of capital equipment (using the definition of equipment valued over $5000). Most of our needs are covered by our supply budget which is probably satisfactory for the next 1-2 years. However, due to the need to refresh technology as it changes, beyond 1-2 years we may have a need for a substantial increase (20-30%) in supply money in two or three of years 3-10.

Physical Resources/Facility Needs
We do not foresee any substantial changes in our needs for facilities over the next 10 years.

Technology Needs

As the technology industry changes, so does our department, at least insofar as computer and network technology is concerned. Going forward, we see a greater reliance on virtualization in industry so our curriculum and our in-class technology must reflect that trend. A shift to mobile computing platforms in the enterprise and cloud computing will drive changes in our curriculum as well.

Staffing Needs

We do not see any changes in full-time staff levels required over the next 10 years. We may need to hire more adjuncts depending on enrollment trends.

Professional Development Needs

Substantial changes in operating systems, virtualization, cloud computing, and mobile platforms will require more professional development than we have needed in the past. Our full-time instructors have come from industry jobs and as time progresses our experience becomes less relevant which means we will need more training to better come up to speed on emerging technologies. A week-long training session is typical and costs $5000 to $6000 once travel and accommodations are included. Estimated need for these training sessions is 3-4 sessions per instructor over the next 10 years.

Partnerships

The CNT department has not been engaged in partnerships, primarily because there are few large industries in the area requiring a trained IT workforce. However, if the employer profile in this area changes, we can provide targeted training according to an employer's IT staffing requirements.

Program Outcomes

Students awarded a degree or certificate by the Computer Networking Technology Department at Yavapai College will be able to:

1. Describe and configure the hardware and software used in a small- to medium- sized computer network. (CNT 100)
2. Maintain and repair personal computers. (CNT 110)
3. Discuss the methods and operation of local and wide area networks. (CNT 115)
4. Perform administrative and troubleshooting tasks on Windows server operating systems. (CNT 120)
5. Perform administrative and troubleshooting tasks on Windows client operating systems. (CNT 121)
6. Manage and maintain a Microsoft Windows Server Active Directory environment. (CNT 122)
7. Manage and support a Microsoft Windows Server network infrastructure. (CNT 123)
8. Configure and implement network security. (CNT 135)
9. Describe the function of TCP/IP and the OSI model and related devices. (CNT 140)
10. Configure Cisco routing technologies. (CNT 150)
11. Configure Cisco switching and wireless technologies. (CNT 160)
12. Configure and describe wide area network access technologies. (CNT 170)
13. Analyze, design, implement, and present a networking project. (CNT 294)

Changes to the current program outcomes will be driven primarily by changes in Microsoft, Cisco, and CompTIA certifications. The current outcomes are fairly general and will likely not require a lot of changes,

even over 10 years. The changes that are made will likely be with respect to cloud computing, virtualization and mobile computing platforms.

Projections and Plans for the Future
- Our course outcomes and program outcomes change about every 3 years to reflect changes in industry certifications. That trend will continue.
- We have been slowly adding more courses to our list of online offerings and that trend will also continue until we can offer the entire AAS degree in an online or hybrid-online format. However, we will continue to offer most classes as seat classes as well since most students prefer that format.
- We would like to see a flexible scheduling system whereby students can enroll in a course (online or hybrid-online) at any time and complete the course at any time within a given time period. This type of flexibility will require a more flexible course management system and will require instructors to work differently; however, we believe that it will better serve student needs.

Associate of Applied Science in Computer Systems & Application Degree
Computer Application Specialist Certificate

Mission Statement

The goal of the Computer Science division is to offer a rigorous, student-centered program which will strengthen the student's knowledge on all levels. Our aim is to enable the ideal of empowering all students to achieve maximum benefit from their educational experiences and preparing the student for the challenges of the 21st century.

Graduate Summary

Computer Systems & Applications AAS Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Computer Systems & Application	Associate of Applied Science	7	4	3	6	7	27
Computers in Business	Certificate <1 yr.	6					6
Computer Maintenance & Repair	Certificate <1 yr.	2	2		1		5
Computer Appl. Specialist	Certificate <1 yr.					1	1
Computers in Business	Certificate			1	1		2

The Computers in Business Certificate and Computer Maintenance & Repair Certificate are no longer available at Yavapai College.

Enrollment Trend

Computer Systems & Applications AAS				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	17	21	20	15
Enrollment	311	395	406	281
Avg. Class Size	18.3	18.8	20.3	18.7
Total SCH	898.0	1150.0	1182.0	813.0
SCH by Location				
Prescott	180.0	238.0	260.0	192.0
Verde Valley	90.0	111.0	108.0	66.0
Prescott Valley	45.0	66.0	69.0	
Sedona	42.0			
Online	412.0	423.0	460.0	354.0
Dual Enrollment	129.0	312.0	285.0	201.0
Enrollee Success				
%Successful	74%	76%	75%	0%

Enrollee success equals a letter grade of A,B,C, or S.

Fall 2012 Academic Period may be incomplete.

Computer Systems & Applications AAS			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	16	11	14
Enrollment	286	275	309
Avg. Class Size	17.9	25.0	22.1
Total SCH	830.0	789.0	894.0
SCH by Location			
Prescott	168.0	133.0	137.0
Verde Valley	129.0	72.0	117.0
Prescott Valley	54.0		
Online	479.0	584.0	640.0
Enrollee Success			
%Successful	70%	64%	72%

Enrollee success equals a letter grade of A,B,C, or S.

Computer Systems & Applications AAS			
	Summer 2010	Summer 2011	Summer 2012
District			
Sections	2	2	2
Enrollment	53	47	44
Avg. Class Size	26.5	23.5	22.0
Total SCH	159.0	141.0	132.0
SCH by Location			
Prescott	63.0	51.0	57.0
Online	96.0	90.0	75.0
Enrollee Success			
%Successful	79%	68%	68%

Enrollee success equals a letter grade of A,B,C, or S.

Computer Systems & Applications AAS				
	AY 2009-10	AY 2010-11	AY 2011-12	AY 2012-13*
District				
Sections	35	34	36	15
Enrollment	650	717	759	281
Avg. Class Size	18.6	21.1	21.1	18.7
Total SCH	1887.0	2080.0	2208.0	813.0
SCH by Location				
Prescott	411.0	422.0	454.0	192.0
Verde Valley	219.0	183.0	225.0	66.0
Prescott Valley	99.0	66.0	69.0	
Sedona	42.0			
Online	987.0	1097.0	1175.0	354.0
Dual Enrollment	129.0	312.0	285.0	201.0
Enrollee Success				
%Successful	73%	71%	74%	0%

Enrollee success equals a letter grade of A,B,C, or S.

AY 2012-13 Academic Period may be incomplete.

Course Enrollment

Computer Systems & Applications AAS - Academic Year 2011-12							
Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
CNT100	10	19.2	192	576.0	78%	14%	8%
CSA126	14	24.6	345	1035.0	72%	15%	13%
CSA161	2	30.5	61	122.0	79%	3%	18%
CSA164	1	21.0	21	63.0	67%	10%	14%
CSA167	1	22.0	22	66.0	59%	9%	32%
CSA170	1	21.0	21	63.0	67%	5%	29%
CSA179	1	15.0	15	45.0	67%	0%	33%
CSA201	1	21.0	21	63.0	90%	5%	5%
CSA266	1	10.0	10	30.0	80%	10%	10%
CSA281	1	11.0	11	33.0	82%	0%	18%
CSA282	1	11.0	11	33.0	55%	18%	27%
CSA294	2	4.0	8	16.0	88%	0%	13%
Cross-listed courses counted as individaul course sections (not merged).							
Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U							
Incomplete student courses excluded from Success measures							

Course Forecast

Computer Systems & Applications AAS - Annual Student Credit Hour Forecast							
Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
CNT100	592.4	658.1	723.8	789.5	855.2	65.7	0.92
CSA126	939.5	958.4	977.3	996.2	1015.1	18.9	0.36
CSA161	131.7	151.1	170.5	189.9	209.3	19.4	0.77
CSA164	64.7	68.0	71.3	74.6	77.9	3.3	0.39
CSA167	75.9	80.7	85.5	90.3	95.1	4.8	0.56
CSA170	75.9	83.7	91.5	99.3	107.1	7.8	0.56
CSA179	56.0	59.9	63.8	67.7	71.6	3.9	0.49
CSA201	61.4	73.1	84.8	96.5	108.2	11.7	0.59
CSA266	44.3	45.8	47.3	48.8	50.3	1.5	0.09
CSA281	41.1	48.3	55.5	62.7	69.9	7.2	0.86
CSA282	50.7	47.1	43.5	39.9	36.3	-3.6	-0.38
CSA294	19.5	22.5	25.5	28.5	31.5	3.0	0.65

Computer Systems & Applications AAS - Historical Student Credit Hour Trend							
Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
CNT100	291.0	456.0	411.0	543.0	576.0	65.7	0.92
CSA126	873.0	960.0	957.0	825.0	1035.0	18.9	0.36
CSA161	30.0	112.0	120.0	122.0	122.0	19.4	0.77
CSA164		48.0	75.0	63.0	63.0	3.3	0.39
CSA167		54.0	69.0	81.0	66.0	4.8	0.56
CSA170	27.0	75.0	78.0	81.0	63.0	7.8	0.56
CSA179	30.0	54.0	54.0	63.0	45.0	3.9	0.49
CSA201		39.0	3.0	48.0	63.0	11.7	0.59
CSA266			27.0	57.0	30.0	1.5	0.09
CSA281	12.0	12.0	27.0	42.0	33.0	7.2	0.86
CSA282	54.0	66.0	60.0	72.0	33.0	-3.6	-0.38
CSA294	10.0	2.0	6.0	20.0	16.0	3.0	0.65

Enrollment Trends
1. The number of students has remained constant, however the focus has shifted.
2. We are seeing more females in the computer science field
3. More students wanting to learn certain 'applications' as to learning the entire field.
4. More students interested in networking.
5. Less students learning to do basic programming.
6. Large interest in the field of 'gaming' and entertainment.
7. Currently, both Amazon and Microsoft are actively recruiting CS majors. It becomes critical on our part to determine the skill set that is being sought by these companies and to manage our curriculum accordingly.

Employment Trends

The EMSI data is for both Computer Information Systems and Computer Science. Both are areas that our degree can prepare students to move into whether it be from getting more education and/or getting experience in the field. The data indicates that there will continue to be opportunities to gain employment in either area.
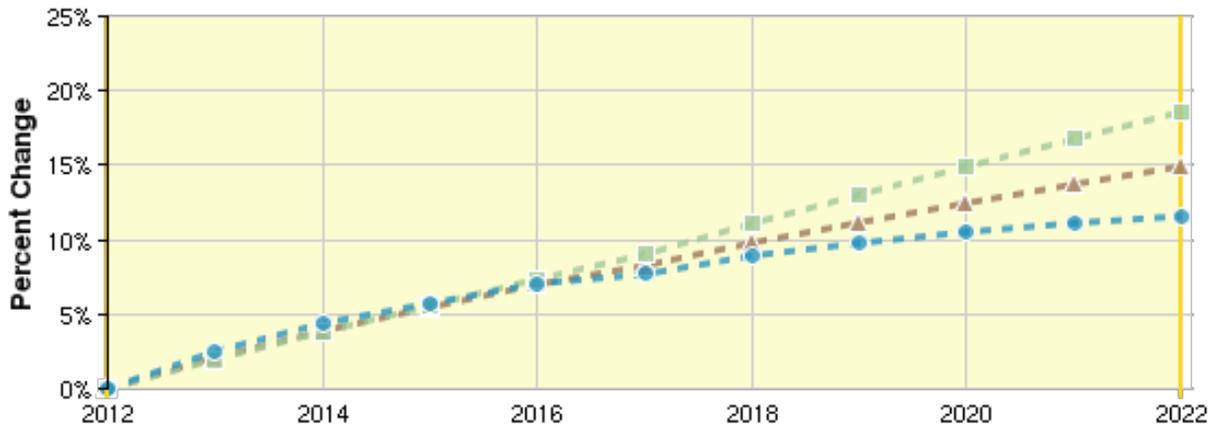
Computer Information Systems

	Region	2012 Jobs	2022 Jobs	% Change
	Yavapai County - All Shared	805	900	11.8%
	Nation	4,265,767	5,086,873	19.2%
	State	81,201	93,807	15.5%

Source: Economic Modeling Specialists, Inc. November 2012

Computer Science

	Region	2012 Jobs	2022 Jobs	% Change
■	Yavapai County - All Shared	590	658	11.6%
■	Nation	3,172,257	3,761,912	18.6%
■	State	59,197	68,034	14.9%

Source: Economic Modeling Specialists, Inc. November 2012

Capital Equipment Needs

Although our equipment needs have been adequately met in the past, there seems to be a movement underway to change from the traditional desktop type computer to more mobile equipment. Laptops computer will soon become obsolete themselves, giving way to both "smart" phones and tablets, the later becoming the de facto standard for student computing. Plans need to be made to assure us that when the time comes to make the change from the traditional desktop machine to tablets we are not only ready financially, but also the research has been done to make a wise choice as to brand and functionality.

Physical Resources/Facility Needs

With the computer and technology industries moving so fast, we could see drastic changes in the future.
1. Interactive 'Whiteboards' in each classroom.
2. Replace the standard 'stand-alone' computer with laptops or tablets.   The entire system will be wireless.
3. At the very least, computers will be smaller, sleeker and thinner. Also computers will be smarter, look for voice commands and touch screens. Dual monitors will be needed.

4. Look for a new generation of input (mouse and screens)

5. Software needs: It is possible that Microsoft will not be the leader in Operating Systems in the future. With new OS being developed every 2-3 years, we are 3 versions away from where we are now in 10 years.
6. Look for more use of program like Skype and video conferences. There will be less face-to-face interaction with students. Social Media may be the trend in teaching courses.

Technology Needs

It often seems impossible to predict the technology situation ten years out. Thus a "best guess" scenario is about all one can do at this point. However, it seems apparent that our lives and thus education needs in the technology area will continue if not increase in importance. What will change is the content. Current course in programming are likely to be outdated, irreverent and immaterial to CS students of the future. What we must be ever so diligent in assessing is the current state of skill level necessary to compete in the technology area of the future. Curriculum along with appropriate hardware/software will need to be available in order to give students the skills they need to compete in the job market.

Staffing Needs

We don't see a change in Computer Science staffing needs in the future. Currently there are 2 full-time faculty members on the Prescott Campus with several adjunct faculty.

Professional Development Needs
1. Conferences on the changing field of Computer Science.
2. Instruction on application development.
3. Learning how to operate the newest devices on the market.

Partnerships

Currently this is a difficult task. Whereas the Phoenix area has many technology companies offering such things as summer internships to CS majors, the Tri-City area has few of these opportunities available. However, it is projected that the Prescott area will show growth in the technology area and it is incumbent upon us to not only to pursue those future opportunities to partner with new companies but to pursue partnerships with currently existing entities. We believe that a major partner could Yavapai County and their IT department.

Program Outcomes

Here is a list of our current Program Outcomes:
1. Define a problem with possible solutions and follow through to a possible solution. (CNT 110, CSA 110, CSA 126, CSA 161, CSA 164, CSA 167, CSA 170, CSA 179, CSA 201, CSA 266, CSA 281, CSA 282, CSA 294, WEB/ART 130)
2. Identify and evaluate technology needs, and apply and adapt acquired skills to address the identified needs. (CNT 100, CNT 110, CSA 161, CSA 164, CSA 167, CSA 170, CSA 179, CSA 201, CSA 266, CSA 281, CSA 294)

3. Communicate ideas clearly and effectively. (CNT 100, CNT 110, CSA 110, CSA 126, CSA 170, CSA 179, CSA 201, CSA 281, CSA 282, CSA 294, WEB/ART 130)
4. Use technology to solve problems and increase productivity. (CNT 100, CNT 110, CSA 110, CSA 126, CSA 161, CSA 164, CSA 167, CSA 170, CSA 179, CSA 201, CSA 266, CSA 281, CSA 282, CSA 294, WEB/ART 130)
5. Identify ethical issues in the business environment. (CSA 110, CSA 294)

These outcomes may need to include in the next 10 years:

1. Effectively use 'Social Media' devices.
2. Computing-based jobs will be among the fastest-growing and highest-paying over the next decade, be able to complete for these jobs.
3. Be able to use and understand e-books. Text may become an 'app' on a smart phone.

Projections and Plans for the Future
1. More online education
2. More use of forums
3. Move to mobile and ubiquitous computing platforms
4. Accessibility — making software more usable for all kinds of people, especially those with disabilities like blindness.
5. Open source tools and developer platforms will be made more available
6. Make the online social experience as natural as possible.
7. User data is becoming more easily stored online, allowing users to detach themselves from a single computer and easily access their information over the Internet.
8. Close the space between computer hardware and dreams

Associate of Applied Science in Office Administration

Mission Statement

The Office Administration degree program prepares students for entry-level employment in a variety of office settings. An emphasis in computer skills, management/leadership, medical office, or legal office may be obtained.

The department of Business and Computer Science prepares students for productive and challenging careers in Administrative Management and for a lifetime of creative thinking and adaptive learning as productive citizens. Within our programs, emphasis is placed on developing leadership, communication, critical thinking, and problem-solving competencies.

Graduate Summary

Office Administration Degree Program AAS Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Microsoft Office User Special	Associate of Applied Science	1					1
Office Administration	Associate of Applied Science	4	6	5	3	4	22
Microsoft Office User Special	Certificate <1 yr.	3	3				6
Office Administration	Certificate <1 yr.		1				1
Microsoft Office User Special	Certificate				1		1

Office Administration AAS (Computer Skills Emphasis) Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Office Administration	Associate of Applied Science	4	6	5	3	4	22
Office Administration	Certificate <1 yr.		1				1

Office Administration AAS (Medical Office Emphasis) Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Admin Medical Assistant	Certificate <1 yr.		1				1
Admin Office Specialist Certificate Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Admin Office Specialist	Certificate <1 yr.	2		2	4	4	12
Admin Office Specialist	Certificate		1				1

Legal Office Clerk Certificate Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Legal Office Clerk	Certificate <1 yr.				1		1

Legal Office Secretary Certificate Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Legal Office Secretary	Certificate <1 yr.				1		1

Enrollment Trends

Office Administration Degree Program AAS				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	33	32	19	25
Enrollment	493	614	430	523
Avg. Class Size	14.9	19.2	22.6	20.9
Total SCH	1313.0	1597.0	1196.0	1427.0
SCH by Location				
Prescott	598.0	605.0	522.0	447.0
Verde Valley	136.0	211.0	105.0	42.0
Prescott Valley	46.0	88.0		
Online	533.0	669.0	569.0	818.0
Enrollee Success				
%Successful	67%	65%	64%	0%

Enrollee success equals a letter grade of A,B,C, or S.

Fall 2012 Academic Period may be incomplete.

Office Administration Degree Program AAS			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	30	28	20
Enrollment	504	520	439
Avg. Class Size	16.8	18.6	22.0
Total SCH	1337.0	1375.0	1251.0
SCH by Location			
Prescott	498.0	535.0	346.0
Verde Valley	198.0	146.0	
Prescott Valley	48.0	100.0	
Online	584.0	579.0	881.0
Dual Enrollment	9.0	15.0	24.0
Enrollee Success			
%Successful	69%	66%	74%

Enrollee success equals a letter grade of A,B,C, or S.

Office Administration Degree Program AAS			
	Summer 2010	Summer 2011	Summer 2012
District			
Sections	9	11	6
Enrollment	172	177	153
Avg. Class Size	19.1	16.1	25.5
Total SCH	409.0	451.0	366.0
SCH by Location			
Prescott	150.0	125.0	186.0
Prescott Valley	64.0	38.0	
Online	195.0	288.0	180.0
Enrollee Success			
%Successful	66%	73%	59%

Enrollee success equals a letter grade of A,B,C, or S.

Office Administration Degree Program AAS				
	AY 2009-10	AY 2010-11	AY 2011-12	AY 2012-13*
District				
Sections	72	71	45	25
Enrollment	1169	1311	1022	523
Avg. Class Size	16.2	18.5	22.7	20.9
Total SCH	3059.0	3423.0	2813.0	1427.0
SCH by Location				
Prescott	1246.0	1265.0	1054.0	447.0
Verde Valley	334.0	357.0	105.0	42.0
Prescott Valley	158.0	226.0		
Online	1312.0	1536.0	1630.0	818.0
Dual Enrollment	9.0	15.0	24.0	
Enrollee Success				
%Successful	68%	67%	68%	0%

Enrollee success equals a letter grade of A,B,C, or S.

AY 2012-13 Academic Period may be incomplete.

Course Enrollment

Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
ACC121	12	24.1	289	867.0	58%	18%	23%
BSA105	2	25.0	50	150.0	84%	14%	2%
BSA130	2	11.0	22	66.0	73%	18%	9%
BSA225	1	17.0	17	51.0	88%	0%	12%
BSA233	5	22.6	113	339.0	81%	5%	14%
CSA110	9	24.9	224	672.0	74%	16%	10%
CSA112	2	9.5	19	19.0	79%	5%	16%
CSA138	3	23.0	69	138.0	57%	26%	17%
CSA139	3	9.0	27	54.0	56%	30%	11%
CSA140	3	27.3	82	164.0	49%	21%	30%
CSA142	3	12.3	37	74.0	65%	16%	19%

Cross-listed courses counted as individaul course sections (not merged).

Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U

Incomplete student courses excluded from Success measures

Enrollment Forecast

Office Administration Degree Program AAS - Annual Student Credit Hour Forecast

Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
ACC121	926.4	922.2	918.0	913.8	909.6	-4.2	-0.14
BSA105	236.7	263.1	289.5	315.9	342.3	26.4	0.54
BSA130	65.9	53.6	41.3	29.0	16.7	-12.3	-0.52
BSA225	57.8	59.3	60.8	62.3	63.8	1.5	0.29
BSA233	309.2	348.5	387.8	427.1	466.4	39.3	0.62
CSA110	766.2	819.6	873.0	926.4	979.8	53.4	0.54
CSA112	20.7	22.1	23.5	24.9	26.3	1.4	0.34
CSA138	242.2	268.6	295.0	321.4	347.8	26.4	0.43
CSA139	120.4	139.1	157.8	176.5	195.2	18.7	0.42
CSA140	239.6	262.7	285.8	308.9	332.0	23.1	0.44
CSA142	100.0	107.9	115.8	123.7	131.6	7.9	0.41

Office Administration Degree Program AAS - Historical Student Credit Hour Trend

| Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
ACC121	936.0	894.0	909.0	990.0	867.0	-4.2	-0.14
BSA105	90.0	153.0	153.0	297.0	150.0	26.4	0.54
BSA130	93.0	147.0	48.0	78.0	66.0	-12.3	-0.52
BSA225	45.0	60.0	63.0	63.0	51.0	1.5	0.29
BSA233	204.0	117.0	87.0	240.0	339.0	39.3	0.62
CSA110	468.0	681.0	882.0	807.0	672.0	53.4	0.54
CSA112	19.0	7.0	9.0	21.0	19.0	1.4	0.34
CSA138	96.0	140.0	268.0	320.0	138.0	26.4	0.43
CSA139	22.0	45.0	166.0	168.0	54.0	18.7	0.42
CSA140	134.0	121.0	282.0	292.0	164.0	23.1	0.44
CSA142	70.0	47.0	114.0	118.0	74.0	7.9	0.41

CSA126 is missing from these forecasts while having a significant impact on enrollment in the division. In addition, there was a huge jump in registration when CSA126: MS Office when this class was added as a

requirement in a number of certificates. This data would not change the results already identified in the current class list, but would more accurately reflect the credit hours and FTSE in the department.

Employment Trends
The EMSI data shows small growth in the areas of administrative support positions in the state and nation with a decline in jobs in Yavapai County. This is opposite of what this report shows (look under Job Outlook).
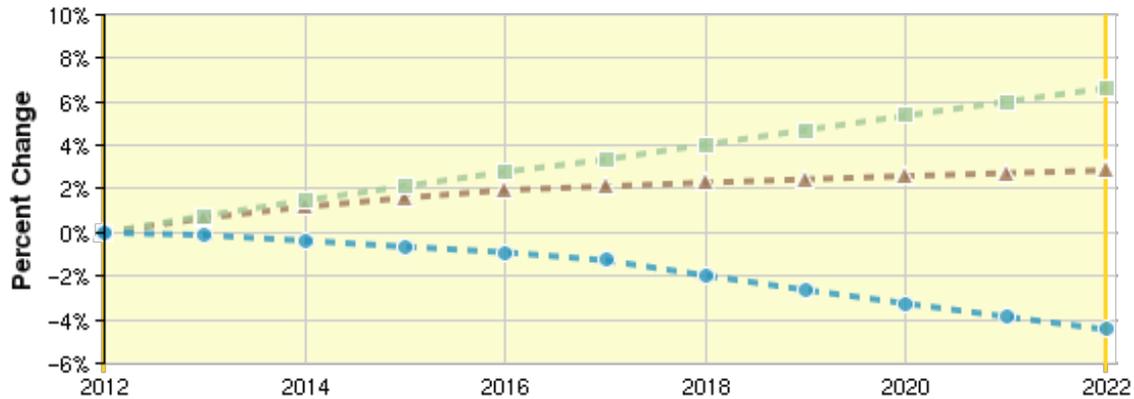
Region	2012 Jobs	2022 Jobs	% Change
Yavapai County - All Shared	1,793	1,713	-4.5%
Nation	3,671,321	3,914,985	6.6%
State	66,899	68,811	2.9%

Source: Economic Modeling Specialists, Inc. November 2012

"In the future office, there will be added pressure to adapt quickly to change, work smarter, increase productivity and perform duties outside of one's job description," said Domeyer. "The good news is that emerging technological tools and educational opportunities will better enable professionals to meet these challenges." (IAAP)

Though this attitude is very hopeful, it is believed change in rural areas will progress much slower. On the other hand, with so many of our employers trying to do more with less, this role becomes broader to support the business in areas not needed before. The positions would then require more training and education to better meet the essential skills of those expanding roles

Changing Roles in the Field
The number-one skill sought by employers when hiring administrative professionals is computer expertise. Administrative assistants need to master word processing, spreadsheet, database, graphics and desktop

publishing. With more managers keying their own correspondence and more files being stored electronically, the nature of secretarial work is changing drastically. Managers are doing more clerical work; administrative assistants and secretaries are doing more professional work. (IAAP)

As secretaries and administrative assistants gain experience, they can earn several different designations. Prominent designations include the Certified Professional Secretary (CPS) and the Certified Administrative Professional (CAP) which can be earned by meeting certain experience or educational requirements and passing an examination. (CollegeToolKit.com) Though the MOU might not have seen many completers, I feel offering these certificates locally might not only help increase the professionalism in our locale but also increase our FTSE. This move would create an opportunity for a partnership with some of the professional organizations, such as IAAP.

Job Outlook
Overall employment of secretaries and administrative assistants is expected to grow 12 percent from 2010 to 2020, about as fast as the average for all occupations. Employment growth, however, will differ by occupational specialty:

Employment of executive secretaries and administrative assistants is projected to grow 13 percent from 2010 to 2020, about as fast as the average for all occupations, as these workers continue to provide high-level support for executives.

Employment of medical secretaries is projected to grow 41 percent from 2010 to 2020, much faster than the average for all occupations. Employment growth will be driven by rapid growth of the healthcare and social assistance industries. An anticipated increase in the use of medical services by an aging population will require many additional medical secretaries.

Employment of legal secretaries is expected to grow 4 percent from 2010 to 2020, slower than the average for all occupations. This slow employment growth is due primarily to the slower-than-average growth of the legal industry overall.

Employment of secretaries, except legal, medical, and executive, is expected to grow 6 percent from 2010 to 2020, slower than the average for all occupations. Although developments in office technology are certain to continue, many secretarial and administrative duties are of a personal, interactive nature and are not easily automated. Responsibilities such as planning meetings, working with clients, and instructing staff require tact and communication skills. Because technology cannot currently substitute for these interpersonal skills, secretaries and administrative assistants will continue to play a key role in most organizations. (U.S. Bureau of Labor Statistics)

"During March, more than 19,400 job ads were posted online for Administrative or Executive Assistants. Hiring demand increased almost 24% last month compared to March of 2011. However, the volume of job ads have not returned to the levels seen before the recession began, when there were more than 30,000 job ads in March of 2008 for administrative professionals." (Lombardi)
Hiring Demand for Administrative or Executive Assistants – 4 Year Hiring Trend
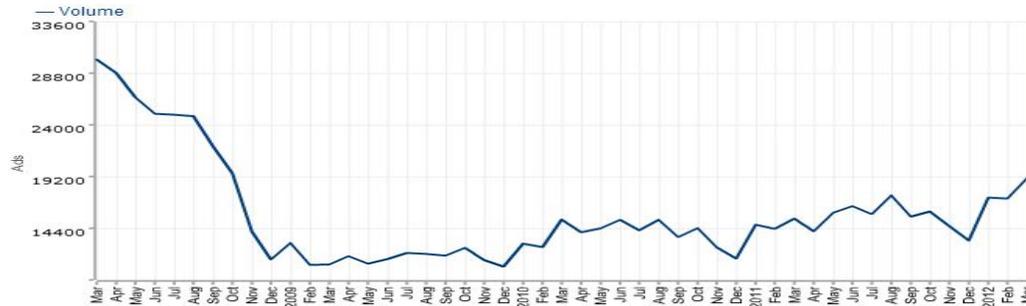
Source: WANTED Analytics

"We also looked at the most commonly required tools, technologies, and skills that are listed in job ads for administrative professionals:" (Lombardi)

The top programs and/or skills identified by Abby Lombardi in this study as being significant are (in order of importance):

1.   Microsoft Office
2.   Microsoft PowerPoint
3.   Microsoft Word
4.   Word processing
5.   Microsoft Excel
6.   Calendar management
7.   Filing system
8.   Microsoft Outlook
9.   Microsoft SharePoint
10. IBM Lotus Notes
11. Microsoft Office Visio
12. Records management
13. Presentation software
14. Customer relationship management (CRM)
15. Adobe Photoshop (Lombardi)

The AAS of Office Administration contains four areas of emphasis: Computer Skills, Management/Leadership, Medical Office, and Legal Office Emphasis. The top three growth trends are in executive, medical, and legal focuses; our programs of study directly correspond to those needs.

State and National Wages

Yearly Wage Chart						
Location	**Pay Period**	**2011**				
		10%	**25%**	**Median**	**75%**	**90%**
United States	Hourly	$14.56	$18.30	$23.47	$30.33	$37.70
	Yearly	$30,300	$38,100	$48,800	$63,100	$78,400
Arizona	Hourly	$13.81	$17.65	$22.33	$28.24	$35.53

Location	Pay Period	2011				
		10%	**25%**	**Median**	**75%**	**90%**
	Yearly	$28,700	$36,700	$46,400	$58,700	$73,900

National Data Source: Bureau of Labor Statistics, Occupational Employment Statistics Survey
State Data Source: Arizona Wage Information

State and National Trends

United States	Employment		Percent Change	Job Openings [1]
	2010	**2020**		
First-Line Supervisors of Office and Administrative Support Workers	1,424,400	1,627,800	+14%	58,440

Arizona	Employment		Percent Change	Job Openings [1]
	2008	**2018**		
First-Line Supervisors of Office and Administrative Support Workers	29,250	31,030	+6%	840

[1]Job Openings refers to the average annual job openings due to growth and net replacement.
Note: The data for the State Employment Trends and the National Employment Trends are not directly comparable. The projections period for state data is 2008-2018, while the projections period for national data is 2010-2020. (Occupation Profile: FIRST-LINE SUPERVISORS OF OFFICE AND ADMINISTRATIVE SUPPORT WORKERS: ARIZONA)

Employment Trends by Occupation

United States	Employment		Percent Change	Job Openings *
	2010	**2020**		
First-Line Supervisors of Office and Administrative Support Workers	1,424,400	1,627,800	+14%	58,440
Information and Record Clerks, All Other	220,600	222,700	+1%	6,390
Office Clerks, General	2,950,700	3,440,200	+17%	101,150
Office and Administrative Support Workers, All Other	293,600	330,100	+12%	9,850
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,032,200	2,150,800	+6%	39,100

Arizona	Employment		Percent Change	Job Openings *
	2008	**2018**		
First-Line Supervisors of Office and Administrative Support Workers	29,250	31,030	+6%	840
Information and Record Clerks, All Other	3,500	2,900	-17%	100
Office Clerks, General	60,330	64,570	+7%	1,250
Office and administrative support workers, all other	1,730	1,500	-14%	40
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	34,340	33,020	-4%	460

* Job Openings refers to the average annual job openings due to growth and net replacement.

Note: The data for the State Employment Trends and the National Employment Trends are not directly comparable. The projections period for state data is 2008-2018, while the projections period for national data is 2010-2020.

National Data Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections

State Data Source: Arizona Department of Economic Security - Research Administration

Capital Equipment Needs
There are computer labs at each site location, but they are restricted to desktop computers. The technological trend is towards mobile equipment with different capabilities and features that are not duplicated in desktops. It is recommended to create banks of mobile equipment such as tablets that would give students experience in an environment they will be encountering more and more in the work world. A bank would be located in each campus location. In partnership with this change in equipment, expanded instruction with targeted outcomes relating to the use of mobile technology in the business world would be needed.

Physical Resources/Facility Needs
ITS should maintain the computer commons currently in place while restoring the facilities at Verde that includes up to date technology, the new mobile tech bank, and software.

Technology Needs
IAAP predicts a move towards a more mobile environment; the use of 'Miniature wireless devices, WiFi, WiMax and mobile technology. "[This] movement will continue to allow a company's staff to work outside of the office with greater ease. Additionally, virtual environments and web-based conferencing services will provide off-site employees with real-time access to meetings, reducing the need to travel" (IAAP) Yavapai College supporting virtual meeting environments such Citrix, Mikogo, and Adobe Connect could include the opportunity for earned credit and/or CEU workshops.

Staffing Needs

Maintain current staff, but require recurring training to upgrade skills to current and approaching technological needs that relate to the courses offered in this program. Place a subject matter expert (SME) of software and technology at each location with enough staff to cover all open lab hours. The focus of our student support would be quality vs. quantity.

Changes in Focus

After concluding research and identifying future workplace trends, OfficeTeam and industry experts summarized six skills professionals will need to prepare for success in this new environment. The skills form the acronym ACTION. They are:

Analysis: Analyzing information and exercising good judgment
Collaboration: Establishing rapport and facilitating team building
Technical aptitude: Selecting the best technical tools and using them effectively
Intuition: Identifying and adapting to the needs and work styles of others
Ongoing education: Engaging in continual learning
Negotiation: Participating in business discussions that produce positive results (IAAP)

In a survey conducted by IAAP, the respondents said the top five most significant issues affecting the administrative profession in the next five to 10 years are: 1) Keeping up with changing technology; 2) Increased workload; 3) Doing more with less resources/budget constraints; 4) Balancing work and family; 5) Need for more training in management and supervisory skills. (IAAP) Two of the top five issues can be improved training and education; both of which are supported by our certificates and degrees.

Training most needed in following areas
(Ranked in order of overall rated importance)

1. Computer software applications
2. Technology applications, such as Web conferencing
3. Supervisory/management skills
4. Project management
5. Public speaking/presentation skills
6. IT systems/hardware/system networks
7. Time management
8. Organizational skills
9. Negotiating
10. Meeting and special event planning
11. Writing and grammar skills
12. Teamwork
13. Another language
Other responses

Computer software used at work

Word processing	99%
E-Mail	99%
Spreadsheet	95%
Scheduling/Calendaring	88%
Presentation	62%
Database management	59%
Desktop publishing	39%
Accounting	29%
Project management	17%
Web design	14%
Authoring	8%
Voice recognition	5%

(Profile of Administrative Professionals Survey)

Technological tools provided by employer for access/use

Networked PC	95%
Color printer	85%
Scanner	69%

Access to work e-mail from home		61%
CD burner		60%
Teleconferencing system		48%
Digital copier		47%
Digital camera		42%
Laptop computer		35%
Videoconferencing system		34%
Wireless Internet access		28%
Employer-provided cell phone		15%
PDA/Hand-held computer		12%
Voice recognition software		5%

(Profile of Administrative Professionals Survey)
Recommendations:

Professional Development Needs
1. Membership and conference attendance in professional organizations that support the field.
2. Training in software and hardware updates
3. ASTD
4. Certified Professional Secretary (CPS) and the Certified Administrative Professional (CAP) CPS

Partnerships
- Yavapai County
- Blue Sky Educational Office Employees
- YRMC
- IAAP
- Local High Schools; dual enrollment, concurrent enrollment

Program Outcomes
Upon successful completion of the Office Administration Degree program, the learner will be able to:

1. Communicate orally and in writing in the context of common business practice. (AHS 100, AHS 131, AHS 132, BSA 105, BSA 111, BSA 112, BSA 113, BSA 120, BSA 140, BSA 223, BSA 225, BSA 233, BSA 296, CSA 112, CSA 124, CSA 126, CSA 133, CSA 134, CSA 138, CSA 139, CSA 140, CSA 142, CSA 144, CSA 145, CSA 296, HIM 100, HIM 172, LAW 100)
2. Design, implement and maintain efficient procedures for accomplishing various office-related tasks. (ACC 121, BSA 111, BSA 112, BSA 113, BSA 120, BSA 130, BSA 140, BSA 223, BSA 225, BSA 233, BSA 296, CSA 110, CSA 124, CSA 126, CSA 133, CSA 134, CSA 138, CSA 139, CSA 140, CSA 142, CSA 144, CSA 145, CSA 172, CSA 296, HIM 100, HIM 172, LAW 101, LAW 107)

3. Work as a member of a team in an office environment to accomplish the goals of the organization. (BSA 111, BSA 112, BSA 113, BSA 120, BSA 140, BSA 223, BSA 225, BSA 233, BSA 296, CSA 110, CSA 296, HIM 100, LAW 101, LAW 107)
4. Use technology to organize information and complete office tasks more efficiently. (BSA 225, BSA 296, CSA 110, CSA 112, CSA 115, CSA 124, CSA 126, CSA 133, CSA 134, CSA 138, CSA 139, CSA 140, CSA 142, CSA 144, CSA 145, CSA 172, CSA 296, LAW 105, LAW 107)

Projections and Plans for the Future

There is so much contradictory information and data regarding this field. On one hand, you are informed that the successful Administrative person should have at a minimum an Associate's Degree; on the other, it is written that these positions are entry level and high school education is good enough.

Many of the resources indicated that the worker would enter the field at the entry level and then, through experience and on the job training, would grow and progress in their careers. Yavapai College has a current focus on completers, which does not necessarily include those who just need a class or two to improve their skills, employability, and/or promotion opportunities. In this field so many are bolstering their skills; not necessarily pursuing a degree. There should be a refocus on programs that quickly add to a person's skills while showing completion of their goals and program of studies. This means an emphasis on creating additional short certificate programs while promoting those already in existence. The challenge will be for these certificates to be designed to include an easy path to an AAS.

Works Cited

(n.d.). Retrieved from Research and Trends Regarding Administrative Professionals Article Index Page: http://iaap-hq.org/ResearchTrends/research_trends.htm

A Robert Half International Company. (n.d.). *Is it Time to Take ACTION?* Retrieved October 5, 2012, from Office of the Future: 2020: http://www.officeofthefuture2020.com/portal/site/oof-us/menuitem.ef852b8f362420917c3e38b88baebfa0/

CollegeToolKit.com . (n.d.). *Executive Secretaries and Administrative Assistants*. Retrieved October 9, 2012, from http://careers.collegetoolkit.com/careers/executive_secretaries_and_administrative_assistants/education/43-6011.00.aspx

IAAP. (n.d.). *Office of the Future: 2020*. Retrieved October 5, 2012, from International Association of Adminstrative Professionals: http://iaap-hq.org/ResearchTrends/Office_of_Future_2020.htm

Lombardi, A. (2012, April 24). *Wanted Analytics*. Retrieved October 9, 2012, from http://www.wantedanalytics.com/insight/channel/occupations/office-admin/

Mission Statement. (n.d.). Retrieved October 8, 2012, from http://www.cwu.edu/: http://www.cwu.edu/it-management/mission-statement

Occupation Profile: FIRST-LINE SUPERVISORS OF OFFICE AND ADMINISTRATIVE SUPPORT WORKERS: ARIZONA. (n.d.). Retrieved October 5, 2012, from CareerOneStop: http://www.careerinfonet.org/occ_rep.asp?optstatus=011000000&soccode=431011&id=1&nodeid=2&stfips=04&search=Go

Profile of Administrative Professionals Survey. (n.d.). Retrieved October 5, 2012, from International Association of Administrative Professionals: http://iaap-hq.org/ResearchTrends/2005_IAAP_profile_of_administrative_professionals_survey_RESULTS-2.htm

U.S. Bureau of Labor Statistics. (2012, March 29). *Occupational Outlook Handbook*. Retrieved October 9, 2012, from http://www.bls.gov/ooh/office-and-administrative-support/secretaries-and-administrative-assistants.htm

Associate of Applied Science in Paralegal Studies Degree

Mission Statement

The Paralegal Department prepares students for employment as paralegals and prepares individuals who are already employed for advancement opportunities in their fields.

Graduate Summary

Paralegal AAS Graduates							
Major	**Degree**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Paralegal Studies	Associate of Applied Science	6	5	3	2	4	20
Paralegal Studies	Certificate <1 yr.	6	2				8
Paralegal Post Degree	Certificate >1 yr.		2	2	2	2	8

Enrollment Trend

Paralegal AAS				
	Fall 2009	**Fall 2010**	**Fall 2011**	**Fall 2012***
District				
Sections	14	14	10	10
Enrollment	99	171	160	169
Avg. Class Size	7.1	12.2	16.0	16.9
Total SCH	252.0	400.0	393.0	395.0
SCH by Location				
Prescott	198.0	138.0	49.0	42.0
Verde Valley	38.0	42.0		9.0
Online	16.0	220.0	344.0	344.0
Enrollee Success				
%Successful	66%	62%	70%	0%
Enrollee success equals a letter grade of A,B,C, or S.				
Fall 2012 Academic Period may be incomplete.				

Paralegal AAS			
	Spring 2010	**Spring 2011**	**Spring 2012**
District			
Sections	16	13	9
Enrollment	121	156	155
Avg. Class Size	7.6	12.0	17.2
Total SCH	316.0	414.0	401.0
SCH by Location			
Prescott	197.0	66.0	14.0
Verde Valley	42.0	17.0	6.0
Online	77.0	331.0	381.0
Enrollee Success			
%Successful	66%	78%	68%

Enrollee success equals a letter grade of A,B,C, or S.

Paralegal AAS			
	Summer 2010	**Summer 2011**	**Summer 2012**
District			
Sections	1	0	
Enrollment	1	0	
Avg. Class Size	1.0		
Total SCH	3.0		
SCH by Location			
Prescott		3.0	
Enrollee Success			
%Successful		100%	

Enrollee success equals a letter grade of A,B,C, or S.

Paralegal AAS				
	AY 2009-10	AY 2010-11	AY 2011-12	AY 2012-13*
District				
Sections	30	28	19	10
Enrollment	220	328	315	169
Avg. Class Size	7.3	11.7	16.6	16.9
Total SCH	568.0	817.0	794.0	395.0
SCH by Location				
Prescott	395.0	207.0	63.0	42.0
Verde Valley	80.0	59.0	6.0	9.0
Online	93.0	551.0	725.0	344.0
Enrollee Success				
%Successful	66%	70%	69%	0%
Enrollee success equals a letter grade of A,B,C, or S.				
AY 2012-13 Academic Period may be incomplete.				

Course Enrollment

Paralegal AAS - Academic Year 2011-12							
Class	Sections*	Avg. Class Size	Enrolled	SCH	Successful Enrollees	Unsuccessful Enrollees	Withdrawals
LAW100	3	24.7	74	222.0	64%	14%	20%
LAW101	2	29.5	59	59.0	56%	29%	12%
LAW104	1	16.0	16	48.0	94%	0%	6%
LAW105	1	11.0	11	22.0	73%	9%	0%
LAW106	1	12.0	12	24.0	75%	17%	0%
LAW201	2	5.0	10	20.0	100%	0%	0%
LAW203	1	10.0	10	30.0	60%	30%	10%
LAW206	1	13.0	13	26.0	77%	15%	8%
LAW208	1	13.0	13	26.0	77%	23%	0%
LAW210	1	10.0	10	20.0	90%	10%	0%
LAW215	2	10.5	21	84.0	71%	19%	10%
LAW216	1	15.0	15	60.0	100%	0%	0%
LAW296	1	5.0	5	15.0	60%	0%	0%
RES201	1	24.0	24	72.0	67%	21%	8%
Cross-listed courses counted as individaul course sections (not merged).							
Enrollee success equals a letter grade of A,B,C, or S; Unsuccessfull = D, F, or U							
Incomplete student courses excluded from Success measures							

Course Forecast

Paralegal AAS - Annual Student Credit Hour Forecast						
Class	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17	Annual Avg. Growth	Growth Trend
LAW100	237.2	264.5	291.8	319.1	346.4	27.3	0.95
LAW101	49.4	59.2	69.0	78.8	88.6	9.8	0.83
LAW104	58.5	58.5	58.5	58.5	58.5	0.0	0.00
LAW105	34.9	34.6	34.3	34.0	33.7	-0.3	-0.05
LAW106	28.3	26.9	25.5	24.1	22.7	-1.4	-0.27
LAW201	26.8	26.4	26.0	25.6	25.2	-0.4	-0.13
LAW203	38.9	35.6	32.3	29.0	25.7	-3.3	-0.43
LAW206	24.3	22.9	21.5	20.1	18.7	-1.4	-0.39
LAW208	22.1	22.3	22.5	22.7	22.9	0.2	0.08
LAW210	Insufficient Data						
LAW215	48.8	50.4	52.0	53.6	55.2	1.6	0.09
LAW216	37.0	35.0	33.0	31.0	29.0	-2.0	-0.18
LAW296	16.5	16.5	16.5	16.5	16.5	0.0	0.00
RES201	78.8	86.3	93.8	101.3	108.8	7.5	0.57

Paralegal AAS - Historical Student Credit Hour Trend						
Class	AY 2007-08	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	Annual Avg. Growth	Growth Trend
LAW100	129.0	138.0	186.0	225.0	222.0	27.3	0.95
LAW101	18.0	14.0	16.0	30.0	59.0	9.8	0.83
LAW104	60.0	45.0	27.0	69.0	48.0	0.0	0.00
LAW105	28.0	39.0	34.0	48.0	22.0	-0.3	-0.05
LAW106	26.0	44.0	26.0	34.0	24.0	-1.4	-0.27
LAW201	26.0	26.0	28.0	34.0	20.0	-0.4	-0.13
LAW203	57.0	30.0	45.0	51.0	30.0	-3.3	-0.43
LAW206	34.0	22.0	34.0	24.0	26.0	-1.4	-0.39
LAW208	22.0	24.0	16.0	18.0	26.0	0.2	0.08
LAW210	14.0	2.0			20.0	Insufficient Data	
LAW215	60.0	44.0	36.0	12.0	84.0	1.6	0.09
LAW216	56.0	44.0	32.0	16.0	60.0	-2.0	-0.18
LAW296			15.0	18.0	15.0	0.0	0.00
RES201	51.0	45.0	27.0	78.0	72.0	7.5	0.57

Enrollment Trends

Fall 2009 through Fall 2012 enrollment has shown a steady growth trend with the majority of growth beginning in 2010 when the program began offering courses in the online delivery format. The two introductory classes, LAW 100 (Introduction to Paralegal Studies) and LAW 101 (Legal Ethics), have shown the most growth at 27.3% and 9.8% respectively. There have been slight decreases (-.3, -1.4, -.4, etc.) in some of the upper level courses. That trend should reverse itself once students from the LAW 100 and 101 courses begin to enter the upper level courses.   Department of Labor is still showing that employment of paralegals and legal assistants is expected to grow by 18 percent from 2010 to 2020, which also supports the growth that we have seen and is a good predictor for future growth.

Employment Trends

The EMSI data shows a steady growth in this field although it is not outstanding, it is steady. The information gathered for this report shows much greater growth (Projections and Plans for the Future).

Region	2012 Jobs	2022 Jobs	% Change
Yavapai County - All Shared	146	159	8.5%
Nation	441,884	509,852	15.4%
State	8,467	9,604	13.4%

Source: Economic Modeling Specialists, Inc. November 2012

Capital Equipment Needs

No changes anticipated.

Physical Resources/Facility Needs

Some students will continue to need access to computers and to assistance with technology. The Computer Commons, Learning Centers, and Libraries appear to be meeting those needs at this time.

Technology Needs

Technology will continue to play a very large role in both the future delivery method and in the content of courses offered. Most of the paralegal courses are being offered online and technology is the backbone of that delivery method. Students will need to have access to computers and internally the College will need to have adequate support for technology maintenance and issues. At the present most textbook authors have been able to obtain educational versions of the various software programs used in their books. As software companies continue to recognize the critical role paralegals play they seem to be willing to provide free educational versions to students and instructors.

Staffing Needs

If enrollments continue to grow staffing needs will increase.

Professional Development Needs

With the increase in the use of technology as a platform for delivery of material as well as the use of technology that is legal-specific, instructors will need support via professional development opportunities in order to remain current. TeLS has traditionally provided support and training for developing online materials and this system currently seems to be meeting those needs. Professional development opportunities to help instructors stay abreast of developments with legal-specific software and the use of technology in the law office is something that will need to be included in budgeting.

Partnerships

Currently in place are articulation agreements with NAU and ASU for transfer students obtaining the AAS in Paralegal Studies. Looking at how we might work with the K-12 schools to articulate some of the courses leading into the Law Office Clerk certificate is something that should be considered. For students who already work in law firms the opportunity to partner with the firm to pay for textbooks and/or tuition is also something that might increase enrollments and assist students in completing studies.

Program Outcomes

Upon successful completion of the Paralegal Studies Degree program, the learner will be able to:

1. Interview witnesses and interact with clients, conduct investigative work, manage cases, conduct legal research, draft legal pleadings, prepare legal documents, and apply legal procedures in areas of real estate, corporate law, probate, mediation, litigation, family law, administrative law, bankruptcy law, and criminal law.
2. Apply written oral and interpersonal skills in the legal and business settings.
3. Identify and evaluate technology needs and apply and adapt required skills to the rapidly changing legal and business community.
4. Proficiently use word processing software and identify and adapt to different types of computer applications.
5. Identify ethical issues and apply the values of professional responsibility.

Projections and Plans for the Future

The job outlook for paralegals and legal assistants from 2010-2020, according to the U.S. Department of Labor is as follows:

> Employment of paralegals and legal assistants is expected to grow by 18 percent from 2010 to 2020, about as fast as the average for all occupations.

> As employers try to reduce costs and increase the efficiency of legal services, they are expected to hire more paralegals and legal assistants. Following the cutbacks experienced during the recent recession, some law firms are rebuilding their support staff by hiring paralegals. Paralegals can be a less costly alternative to lawyers and perform a wider variety of duties, including tasks once done by lawyers. This will cause an increase in demand for paralegals and legal assistants.

> In addition, paralegals' work is less likely to be offshored than that of other legal workers. Paralegals routinely file and store important documents and work with lawyers to gather documents for important transactions, hearings, and depositions. They frequently handle documents and take statements, which must be done in person.

Law firms will continue to be the largest employers of paralegals, but many large corporations are increasing their in-house legal departments to cut costs. For many companies, the high cost of lawyers and their support staff makes it much more economical to have an in-house legal department rather than to retain outside counsel. This will lead to an increase in the demand of legal workers in a variety of settings, such as finance and insurance firms, consulting firms, and health care providers. (U.S. Bureau of Labor Statistics, Occupational Outlook Handbook, 2010-2020)

Other trends affecting paralegal careers are:

1. Increases in the use of technology for communicating and managing data and the need for paralegals with legal as well as a high level of technology training (3D Graphics & Animation, Four Trends, Evolving Paralegal Role);
2. Increases in freelancing as a viable paralegal career (Freelance Freedom, Marketing Your Paralegal Services);
3. Increases in paralegal regulation (Paralegal Regulation in the United States);
4. Increases in use of social media (Four Trends); and
5. Increases in opportunities to specialize within the paralegal field (The Evolving Paralegal Role, Collaborative Family Law, Casa Needs Paralegals, 3D Graphics & Animation, Does Your Attorney Suffer from Technophobia?).

Based upon the Department of Labor projections that there will be a continuing need for paralegals and for paralegal education over the next 8 years and based upon the very real developments in the use of technology and the issues related to its use we can project that enrollments will, at a minimum, stay the same, but in all probability will continue to increase.

Additionally, since offering courses online appears to have had a positive impact on enrollments and since there are no paralegal programs in northern Arizona, it is the Program's plan to continue to offer courses in the online delivery format and to begin an active marketing plan aimed specifically at northern Arizona.

After doing the research for this report and seeing other paralegal program webpages, it appears that our Program's web page is in need of updating as a marketing resource. Plans include a "graduate highlight" video or slide show, pictures to make it more robust, and links to articles relating to the Program and paralegal success.

Due to the developing need for increasingly complex technology skills, the increase in regulation that requires continuing legal education, and opportunities for paralegals to specialize, the Program will be researching how best to provide continuing legal education courses to graduates and other paralegals. We will also be looking within the college to see how best to partner with existing programs to explore options for continuing education training in areas such as social media marketing for law firms and paralegals, database management basics for the paralegal, video gaming as it relates to 3D animation, obtaining advanced certificates such as the Certified Legal Assistant, Certified Legal Document Preparer, collaborative law, mediation, etc.

References:

3D Graphics & Animation by Vicki Pohlman, "Facts & Findings", May/June 2012

CASA Needs Paralegals by Lea Ann Callico, CP, "Facts & Findings," May/June 2012

Collaborative Family Law by Wade Harrison, "Facts & Findings," September/October 2012

Does Your Attorney Suffer from Technophobia? by Carl Morrison, "@Law," Summer 2012

Four Trends Will Change the Face of the Paralegal Profession by Chere Estrin,
http://www.paralegal.edu/en/articles/printview.asp?5

Freelance Freedom, "Paralegal Today," July/September 2010.

Marketing Your Paralegal Services, by Rachel Ng, "Paralegal Today," March/April 2005,
http://paralegaltoday.com/issue_archive/features/feature1_ma05.htm

Paralegal Regulation in the United States, by Patrick Vyong, "Paralegal Today, March/April 2006,
http://paralegaltoday.com/issue_archive/features/feature1_ma06.htm

The Evolving Paralegal Role by Milton Hooper, "Paralegal Today," May/June 2007,
http://paralegaltoday.com/issue_archive/features/feature1_mj07.htm

U.S. Bureau of Labor Statistics, Paralegals and Legal Assistants, Occupational Outlook Handbook, 2010-
2020, http://www.bls.gov/ooh/Legal/Paralegals-and-legal-assistants.htm

Associate of Applied Science in Video Game Development
Video Game Developer Certificate

Executive Summary
The Yavapai College video game development program is a software development degree program that uses video games as the project vehicle for instruction. Software development is a lucrative career and a growing field. Video games present a natural medium of intrinsic student interest through which to deliver the content leading to these careers. Software tools used in these courses are the leading professional development packages. These are available to the students at no cost or extremely low cost. All program texts and materials are produced by department faculty to keep program course content cohesive and keep materials as low cost as possible for students. The cost for all course text, materials, and those few software licenses that are not free for all 14 courses of the degree major is about $500. In state total tuition costs for the 14 courses included in the major is currently $2940. Currently, the only other completely online programs teaching this content that can be found are offered by private for profit institutions and carry tuition costs of between $55,000 and $100,000. The instructor model being used in the department is such that new non semester based scheduling paradigms including competency based course delivery models can be used without any change to the current staffing.

Mission Statement
The Associate of Applied Science degree in Video Game Development prepares students for entry into the cutting edge career field of the design and creation of video games for commercial, casual and educational markets for use on PCs, MACs, Smartphones, tablets and game consoles.

A possibly more internally oriented phrasing:
To provide software development training to a level where the student is capable of entering the workforce as a professional software developer with special emphasis on those specific skills needed to design and create video games for the commercial, casual, and educational markets for use on PCs, MACs, Smartphones, tablets and game consoles.

Employment Trends
There was no EMSI data in this area. This part of the report will indicate there is significant growth in this area with continued growth expected in the future.

The need for software developers has grown steadily for many decades. Currently, a great number of those individuals being granted H1B work visas in the United States are individuals with skills in this area because the need for workers cannot be met by the US population. The 2012 video game industry salary survey finds that the starting base salaries for individuals in this field are over $65,000. Salaries for those individuals with 3 to 6 years' experience average over $80,000. Average base salary for all individuals employed in the field is currently above $92,000. The video game industry US gross sales currently exceeds that of both the movie box office and recorded music industries COMBINED. In addition, the game industry has been growing at a rate that is faster than most areas of potential employment. Over the past decade, the US video game industry has grown between 10 and 20 percent PER YEAR. (http://www.theesa.com/facts/pdfs/VideoGames21stCentury_2010.pdf). The 2010 Report concludes that:

- The U.S. computer and video game software publishing industry directly employs more than 32,000 people in 34 states.
- In 2009, these employees received total compensation of $2.9 billion.

- The total U.S. employment, both direct and indirect that depends on game software now exceeds 120,000.
- For the four-year period 2005 through 2009, direct employment in the U.S. computer and video game software publishing industry grew at an annual rate of 8.65%.
- The U.S. computer and video game software industry's value added to U.S. Gross Domestic Product (GDP) was $4.9 billion.
- The real annual growth rate of the U.S. computer and video game software industry was 10.6% for the period 2005-2009 and 16.7% for the period 2005-2008.
- During the same periods, real growth for the U.S. economy as a whole was 1.4% for 2005-09 and 2.8% for 2005-08.
- In 2009, the average annual compensation per employee (wages, salaries and employer contributions for pensions, insurance and government social insurance) was $89,781.

Capital Equipment Needs
Currently, the courses offered by the Video Game Department are all online. If this structure continues, there will be no direct capital requirements. Assignment submission size for many program assignments already exceeds the maximum allowable for Blackboard portal attachments, so a secure FERPA compliant channel has been established through mediafire.com for assignment submission. Blackboard has also proven less than satisfactory for delivering course content, so additional resources are being established through godaddy.com. The cost for these services is approximately $200 per year and is currently being funded by donations within the department.

The video game department has also held a number of free hands-on introductory two hour seminars for prospective students using computers that reside in classrooms in buildings 3 and 19. These machines are just barely capable of serving as a platform for these seminars. It is understood that the college is converting these machines to thin client configuration. When this switch happens Yavapai College will no longer be able to provide these seminars as the computers will no longer be usable for this or any software used in the video game development program.

If the department is to ever offer classroom based instruction, computers capable of supporting high end software graphic development will need to be available. At this time, computers of this kind can be purchased for about $900 each. These machines would need to be on an approximately three year replacement cycle to stay current with the industry software. Because of the much greater cost effectiveness, it is recommended that computers selected for this purpose be Windows based rather than MAC. Costs for equivalent Apple MAC hardware would be approximately 50% greater with far less software availability.

If a classroom based program was to be established, creating a motion capture laboratory would also be desirable. Motion capture hardware and software prices do also follow Moore's law so the performance to price relationship doubles every 12 to 24 months. Some of the best value systems are currently being produced by OptiTrak, located in Corvallis, Oregon. The current price for a reasonably configured low end professional level system is about $15,000.

Physical Resources/Facility Needs
If the current completely online format is to be maintained, the only facility requirement would be office or meeting room space for instructor meetings and instructor/student meetings.

If classroom based instruction were to be offered, requirements would be for one (or possibly more) classroom equipped with computers capable of running the professional level software used in the courses. The motion capture lab would require an empty room approximately 20' x 20' in size.

Technology Needs

This was addressed above in the Capital Equipment needs section. As currently configured, the department requires no equipment of any kind. Online infrastructure needs beyond standard portal access are most cost effectively addressed through outside third party contracts which currently run $200 per year. The storage and bandwidth included in these current services is such that this level of expense will be sufficient for any likely program expansion over the next ten years. Course offering flexibility available because of the department course content and staffing model may require changes to Yavapai College administrative processes to match those available from other institutions (discussed later in this document).

Staffing Needs

Because of the high salary and high demand for trained individuals in this field, securing sufficient full time instructors who are competent and current (and likely to stay so) would be very problematic. It would also restrict flexibility made possible by the design of program content. Because of this I have proposed that the department staffing be accomplished using an adapted grad student model. The instructor staffing model would be to have one lead person who is responsible for making sure that courses stay current, making sure that course texts and materials are developed when needed, being a resource for other program instructors technical and course management questions, and teaching those higher level courses that may not attract enough students to be offered under standard load hour guidelines or may be too advanced for other instructors. Other department instructors are either employed as conventional course instructor adjuncts or as Assistant Instructors under the adapted grad student model. These individuals are recruited from outstanding advanced program students and recent graduates of high regard. They are employed in this capacity as a way to gain further content expertise in an instructional setting and to provide initial resume credential in an industry setting. The high selectivity and low staffing need for these positions are such that it would not be reasonable to include this position as part of a program requirement, buy rather offered as a non-publicized by recruitment only position. These individuals may, through professional work experience and/or additional credentialing, advance to the position of adjunct instructor and potentially to the position of department lead instructor. This model does not include conventional full time permanent load hour based faculty.

Professional Development Needs

In the software industry in general and the video game development world in particular, current software packages, programming languages, workflow paradigms, and product delivery and marketing channels change very rapidly. Staying current with the industry takes a continuous effort. Luckily, there are many free online resources to help with this. There are also three annual industry conferences which are of value:

- E3 Conference – held in the summer and for the past few years has been in the greater Los Angeles area. 2013 conference will be held June 11 – 13.
- SIGGRAPH – held in the summer at a North American location that changes each year. 2013 conference will be held in Anaheim, CA July 21 – 25.
- Game Developers Conference (GDC) – held in the spring in San Francisco, CA. 2013 conference will be held March 27 – 29.

Partnerships

Partnership opportunities will likely be available once the program becomes more established. Yavapai College has been approached by one firm already, but chose not to create a partnership with that organization at that time.

Program Outcomes

Upon successful completion of the Video Game Development Degree program, the learner will be able to:

1) Create video games suitable for use on a PC or MAC. (VGD 121, VGD 122, VGD 171, VGD 172)

2) Create video games suitable for use on the Web. (VGD 121, VGD 122)

3) Create video games suitable for use on handheld devices. (VGD 221, VGD 222)

4) Create static and animated 3D objects suitable for use in video games. (VGD 151, VGD 152, VGD 251, VGD 252)

5) Design and create video games in multiple genres. (VGD 122, VGD 221, VGD 222, VGD 281, VGD 282)

6) Design, create, and deploy a video game through a commercial marketing channel. (VGD 281, VGD 282, VGD 293, VGD 294)

Projections and Plans for the Future

This program is the only one of its kind that can be located that is offered completely online at a public institution. It is also in a field that has spawned the creation of many programs at very high cost for profit institutions. Because of these factors, the potential for statewide and national enrollment exist. The completely online nature of the program is such that it should be able to be offered by Yavapai College at as low a cost as any program available. The grad student instructor model should also allow for decreased course delivery cost.

The fact that most or all of the program instructors are not tied to conventional load hour requirements and restrictions also means that the limitations to semester based classes and load hour requirements are not present. Program courses can be offered in a variety of start date and length structures. Private for profit and other cutting edge universities have been very successful marketing programs with non-semester based scheduling. Northcentral University allows students to start classes any Monday. Western Governors University and a few programs at other universities use a competency model allowing students to finish courses as quickly as they are able and move on to the next course in their degree sequence at that time. These programs have been able to navigate the challenges presented by scheduling and facilitating financial aid programs with these offerings. To remain competitive in the education marketplace of the 21st century, I believe that any institution must move beyond the traditional semester based course offering structure to something that is more in line with student needs and the flexibility offered by other institutions. The course content and instructor model that are being deployed in the video game department make it a perfect candidate for these types of offerings.