

Back to Basics

Designing and assessing library instruction


Workshop for CCLI 2020

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Learning outcomes

- Describe elements of key models for instructional planning, design and assessment
- Apply principles to actual instruction program
- Identify relevant measures for assessing instructional effectiveness



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The objective of education is learning, not teaching.

Ackoff & Greenberg,
Turning Learning Right Side Up (2008)

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Start with the learner

- Learner analysis
- Learning theories
- Learning styles
- Learning context



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What do we need to know about our students?

- Demographics
- Learning styles
- Information processing styles
- Communication styles
- Experience, preferences, expectations
- Habits, emotions
- Social norms, value systems, beliefs
- Collectivist versus individualist societies



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Learner analysis

We are different

- Experiences
- Personalities
- Talents & skills
- Culture
- Genetics!



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We are the same



- Groups we belong to
- Cultures, teams, age groups...
- Cultural norms
- Behaviors

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We can change



- Ages and stages of life
- Changing as we experience and learn new things

8

Yet we can stay the same

Your best friend from second grade who hasn't changed all that much...



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Learning styles

VARK

- Visual
- Auditory
- Read/Write
- Kinesthetic

Fleming & Mills, 1992

Many others...

- Multiple intelligences (Gardner, 1983)
- Learning Style Inventory (Kolb, 1984)
- Learning Styles Questionnaire (Honey & Mumford, 1989)

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Activity #1

- Compare data on college enrollment
- What do you know about these learners?
- Fill out worksheet
- Discuss

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Elements of instruction planning

- ✓What do we know about our learners ?
- What do learners need to know/learn ?
- What activities and materials will we use ?
- How will we evaluate and revise instruction ?
- How will we assess student learning ?

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Learning objectives: ABCD method

- Audience
- Behavior
- Conditions
- Degree



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Learning outcome example

The screenshot shows a web browser window with the URL www.ischool.drexel.edu/Home/Academics/CourseDescriptions/Course?shorter=&courseID=166. The page title is "Course Details". On the left is a navigation menu with categories like "Academic", "Research", and "Faculty & Professional Staff". The main content area shows course information for "INF0104 - Nursing Informatics for Registered Nurses". A red arrow points to the "Outcomes" section, which lists several learning objectives:


- Demonstrate skills in using, information systems and communication devices that support safe nursing practice.
- Discuss the importance of using standardized terminology in a care environment to reflect nursing's unique contribution to patient outcomes.
- Explain ethical standards related to data security, regulatory requirements, confidentiality and clients' right to privacy.
- Recognize that the design of workflow and care processes should precede implementation of care technology in the healthcare environment.
- Evaluate the credibility of sources of information, including but not limited to, databases and the Internet.

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Encourage higher-level learning when you can



Lower level: memorizing facts and concepts



Higher level: thinking critically, solving problems

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Bloom's Taxonomy



© tips.uark.edu

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Bloom's Taxonomy verb wheel



From: Cal State TEACH: Technology Enhancement Project
<https://learningcentralia.wordpress.com/2012/05/31/blooms-taxonomy-and-the-verb-wheel/>

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ACRL Information Literacy Framework

- Authority Is Constructed and Contextual
- Information Creation as a Process
- Information Has Value
- Research as Inquiry
- Scholarship as Conversation
- Searching as Strategic Exploration

--ACRL 2016

<http://www.ala.org/acrl/standards/ilframework>
https://fordham.libguides.com/lid.php?content_id=20413655

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Dear American Library Association Community,

Due to ALA's move to the new offices which involves the sizeable transfer of data, our website remains under maintenance.

Our other external websites and internal systems will not be accessible during this migration period. To keep you connected, we are working around the clock to bring our website and full range of offerings back online at our new offices and co-location facility as quickly as possible.

Thank you again for your continued patience during this time. So much rich history and information is contained in the data, we want to treat it carefully. We tremendously value your support during this major endeavor.

Sherri Vanyek
ALA IT

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Bad example

"Using their hands, the students will be able to clap the rhythm of 'Mary Had a Little Lamb' with 90% accuracy"

Problems?

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Bad example

"Using their hands, the students will be able to clap the rhythm of 'Mary Had a Little Lamb' with 90% accuracy"

Problems?

- "Using their hands": unnecessary
- "Will be able to clap" can't be seen
 - Better: "will clap"
- What does a student have to do to achieve 90% accuracy? Can the instructor tell?

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Higher level learning examples

"The learner will analyze websites to determine the kinds of information they contain"

"The learner will evaluate websites to determine which is best for his or her purpose"

"The learner will create a site that directs others to different kinds of information on hypertension"

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Activity #2

- Select an instructional need to fill
- Construct learning outcomes
- Fill out worksheet
- Discuss




Spokane CC science classroom



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Designing instruction



<http://www.ednewsdaily.com/alternatives-to-teaching-20-companies-that-hire-teachers/>



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Merrill's Principles of Instruction

Integration	Activation
Problem/ Task	
Application	Demonstration

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Engaged in solving real-world problems



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Activation

Recall existing knowledge, experience



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Knowledge is demonstrated



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Knowledge is applied



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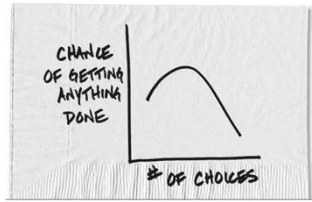
Knowledge is integrated



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Instructional modes, formats

- Many choices!
- Synchronous-async
- Remote – F2F
- Paper – video – podcast
- Static – interactive
- Demonstration modes
- Activities
- Assessments
- Etc...



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About these choices...

- Audience level – characteristics (age, education, skills, etc.)
- Audience size
- Mode/format (synch – asynch, remote – F2F etc.)
- Institutional expectations
- Budget
- Technology
- Time for preparation, learning
- Facilities – space, equipment for development, delivery
- And more...

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Activity #3

- Thinking about the instructional outcomes you designed earlier, how might you apply Merrill's principles?
- Fill out worksheet.
- Discuss



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Evaluating instruction

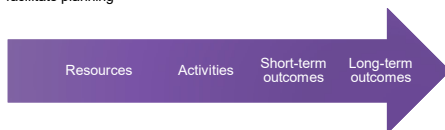
- Theory of change - logic model
- Kirkpatrick's model for evaluating training



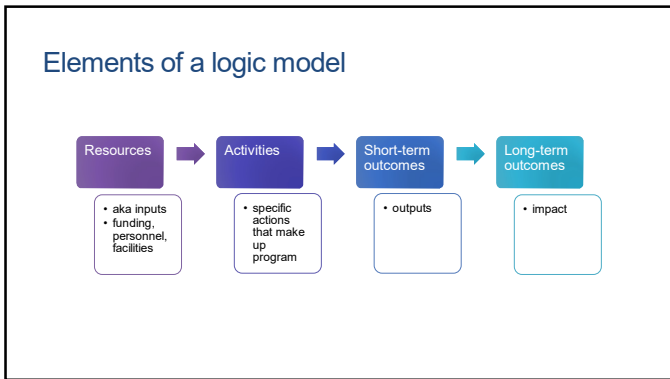
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Logic models

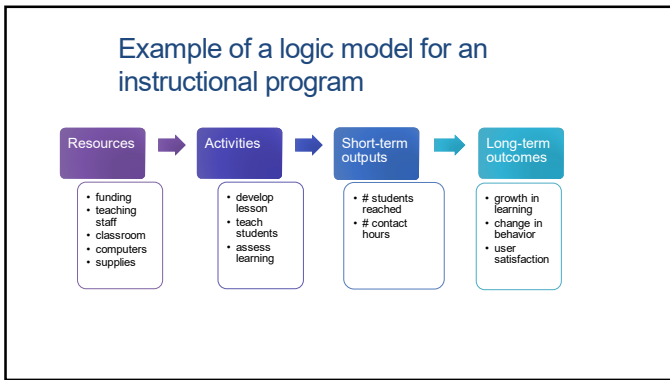
- What is a logic model?
 - Describes relationships among project elements
 - Illustrates details of project plan
- Benefits
 - document inputs, activities, outcomes
 - clarify understanding
 - facilitate planning



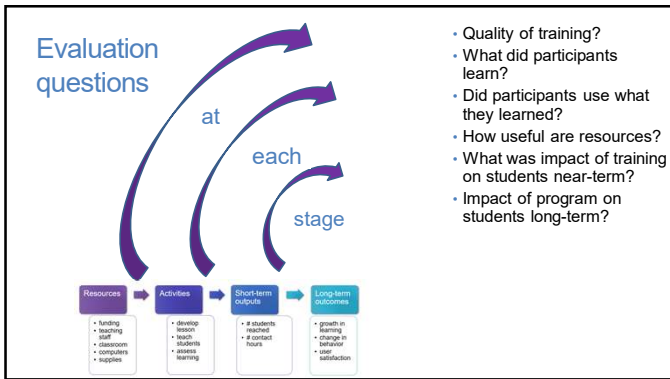
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A model for evaluating training

- Level 1: Reaction**
 - Did participants react favorably to training? Why/not?
 - Room comfortable? Subject engaging?
- Level 2: Learning**
 - Knowledge acquired? Attitudes changed?
 - Skills improved?
- Level 3: Behavior**
 - What on-the-job behaviors changed as a result of training?
- Level 4: Results**
 - Final impact of training on organization
 - To what degree were outcomes reached as result of training?

Kirkpatrick, D.L. 1994. Evaluating training programs: The four levels. San Francisco: Berrett Koehler.

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Assessment measures & techniques

- Observation (reaction, learning)
- Satisfaction survey (reaction)
- Pre-post test: knowledge (learning)
- Follow-up survey: skills, abilities, application (learning, behavior)
- Follow-up survey: long-term impact (behavior, impact)



<https://www.alleducationschools.com/teaching-careers/adult-education-teacher/>

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Assessment examples



Workshop Evaluation
Instructor: Carla Lehn

Date: _____

1. How much do you agree or disagree with the following statements?	Completely agree	Agree somewhat	Disagree somewhat	Completely disagree	Undecided	Not applicable
Topics covered were relevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Materials were helpful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participation and interaction were encouraged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time allotted was sufficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor was well prepared to teach this course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The instructor inspired interest in the course material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The meeting room / facilities were adequate and comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This training met my expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This training will improve my library's ability to provide services to the public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Overall ratings	Excellent	Good	Fair	Poor	Not sure	Not applicable
Overall, how would you rate this training?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, how would you rate this instructor?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. What was the most useful part of this session?	<input type="text"/>					
4. What could be improved?	<input type="text"/>					
5. Anything else you want us to know?	<input type="text"/>					

This project is made possible in part by the Institute of Museum and Library Services IIE-00-16-0114-16.

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Assessment examples

KNOWLEDGE, SKILLS & ABILITIES

6. How would you rate your knowledge of the following right now?

	Excellent	Good	Fair	Poor	Not applicable
a. Benefits of utilizing skilled volunteers in your library	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Differences between "volunteer management" versus "volunteer engagement"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. What motivates volunteers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Effective acknowledgment and recognition of volunteer service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Elements of meaningful job descriptions for volunteers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Best practices for online volunteer recruitment via VolunteerMatch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Assessment techniques

- Assessing reaction to instruction
- Assessing knowledge & skills: MANY techniques ! See Angelo & Cross
- Quizzes
<https://www.proprofs.com/quiz-school/quizshow.php?title=acc-library-information-literacy-quiz&q=2>
- Assessing attitudes, values, self-awareness
- Individual, group feedback
- University of Texas Libraries. (2019). Information Literacy Toolkit: Incorporating Assessment Tools. <https://guides.lib.utexas.edu/c.php?g=674020&p=4746599>

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Wrapping up

- Learning versus teaching
- Know your students
- Activities that enable learning (Merrill)
- Learning outcomes: higher order learning
- Program logic model
- Levels of training evaluation (Kirkpatrick)

QUESTIONS ?



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References & resources

- Angelo, T. A., & Cross, K. P. (1993). *Classroom Assessment Techniques: A Handbook for College Teachers (Second ed.)*. San Francisco: Jossey-Bass.
- Angelo, T. A., Major, C. H., & Cross, K. P. (2001). *Collaborative Learning Techniques: A Practical Guide to Promoting Learning in Groups*. San Francisco: Jossey-Bass Pfeiffer.
- Association of College and Research Libraries. (2016). Framework for Information Literacy for Higher Education. Retrieved from https://fordham.libguides.com/ld.php?content_id=20413655
- Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- Grassian, E. S., & Kaplowitz, J. R. (2009). *Information Literacy Instruction*. New York: Neal-Schuman.
- Honey, P., & Mumford, A. (1989). *Learning styles questionnaire*. Organization Design and Development, Incorporated.

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Resources (continued)

- Kirkpatrick, D. L. (1996). Great ideas revisited: Revisiting Kirkpatrick's four-level model. *Training & Development*, 50(54-59).
- Merrill, M. D. (2002). First Principles of Instruction. *ETR&D*, 50(3), 43-59.
- Project CORA. (2020). Community of Online Research Assignments. Retrieved from www.projectcora.org
- Smith, P. L., & Ragan, T. J. (1999). *Instructional Design*. New York: Wiley.
- University of Texas Libraries. (2019). Information Literacy Toolkit: Incorporating Assessment Tools. Retrieved from <https://guides.lib.utexas.edu/c.php?g=674020&p=4746599>

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Thanks for attending!

Contact me with questions, comments:
 Jen Sweeney
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ACTIVITY #1**What do you know about the students at Spokane Community College and Antelope Valley College?**

	Antelope Valley	Spokane
How old are students?		
What is the gender breakdown?		
What racial/ethnic groups are represented?		
How much prior education do students have?		
What are they studying?		
How many are employed while in school?		
What kind of special populations can you identify?		

What else would you want to know about these students?

ACTIVITY #2

Using what you know about SCC and/or AVP, select an instructional need to fill. Who is the audience? Write a broad, overall goal for your instruction: what do you want students to learn? Why is this goal important? Using the ABCD method and/or Bloom's taxonomy, draft three or four higher level learning outcomes to achieve this goal.

Audience:

Overall instructional goal:

Why is this goal important?

Using the ABCD method and/or Bloom's taxonomy, draft three or four higher level learning outcomes to achieve this goal. List these below.

	What will students be able to do? How will you be able to tell?
Learning outcome #1	
Learning outcome #2	
Learning outcome #3	
Learning outcome #4	

What other evidence would show that students have achieved these objectives? What behaviors do you expect students to exhibit? What characteristics do they now have? Consider using these behaviors and characteristics to enhance your learning outcomes above.

ACTIVITY #3

Consider the instructional outcomes you designed earlier for your AVP and/or SCC students. How might you apply Merrill's principles of instruction?

What is the real world problem or task?	
How will you activate prior knowledge	
How will you demonstrate what you want them to learn?	
How will students apply their new knowledge? How will they use it?	
How will you have student integrate their new skill into their lives?	

What did you find difficult about this exercise? What do you still have questions on?

Quarterly Demographics

Includes "Not Reported" where applicable

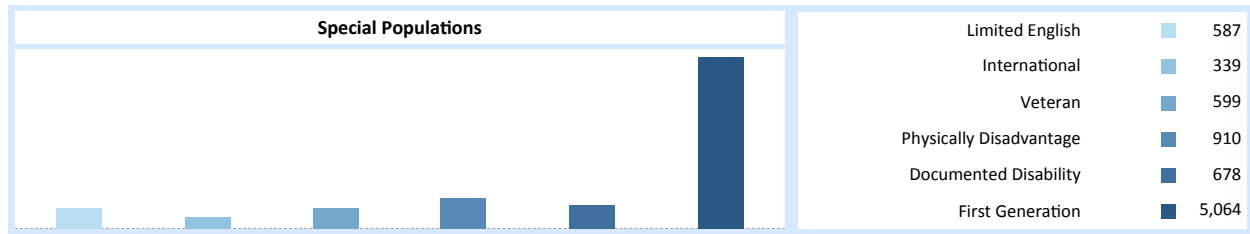
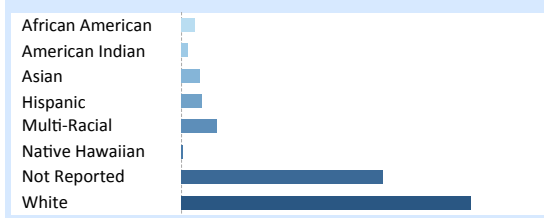
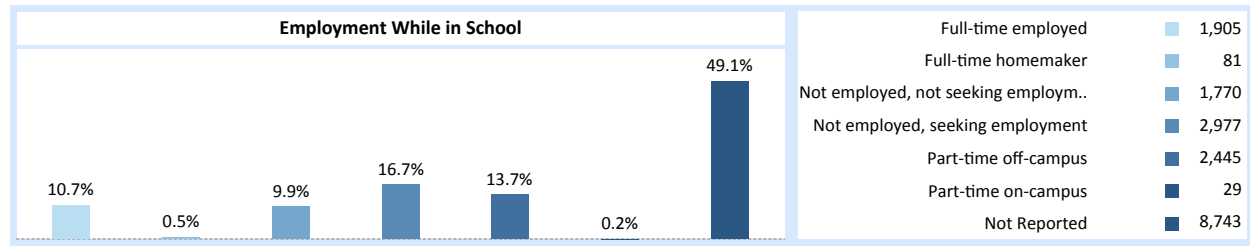
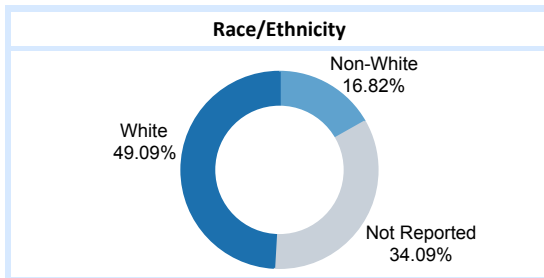
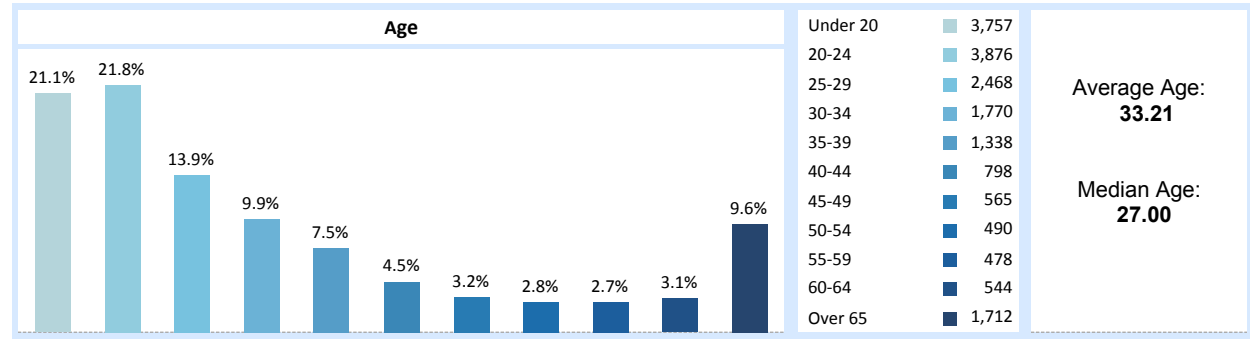
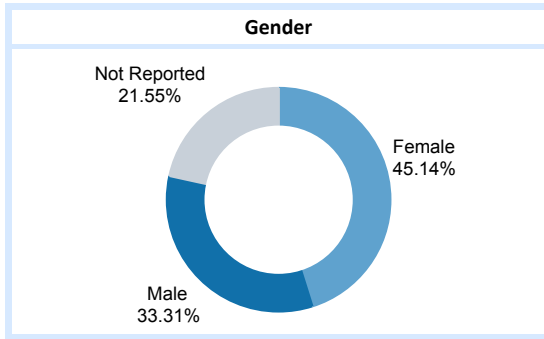
Academic Year: 2018-2019 Institution: CCS Quarter: Fall Fund Source: (ALL)

FAST FACTS

Total Students: 18,000

Award-Seeking Students: 12,340

** The Demographics Dashboards use the same parameters. If a section has zeros or is blank that means we do not have that data at this time. **



Prior Education	Tuition Status	Family Status	Source of Student
Less than 9th Grade: 0.7%	Apprenticeship: 11.3%	Not Reported: 74.9%	Continuing Student: 50.2%
Less than High School: 1.7%	I-Best: 3.4%	Single Parent: 4.8%	Transfer Student: 11.4%
GED: 9.7%	International: 6.7%	Couple with Dependents: 3.5%	Former Student Returning: 14.1%
High School Graduate: 59.7%	Resident: 73.3%	No Dependents: 16.9%	First Time Student: 25.0%
Some Post HS, no cert or degree: 24.9%	Running Start: 8.2%	Other: 0.1%	
Certificate (less than 2 years): 0.4%			
Associate Degree: 0.7%			
Bachelor's Degree or above: 1.6%			
Other: 0.7%			



Annual Overview

FAST FACTS

Total Students: 28,744

Award-Seeking Students: 17,873

Academic Year
2018-2019

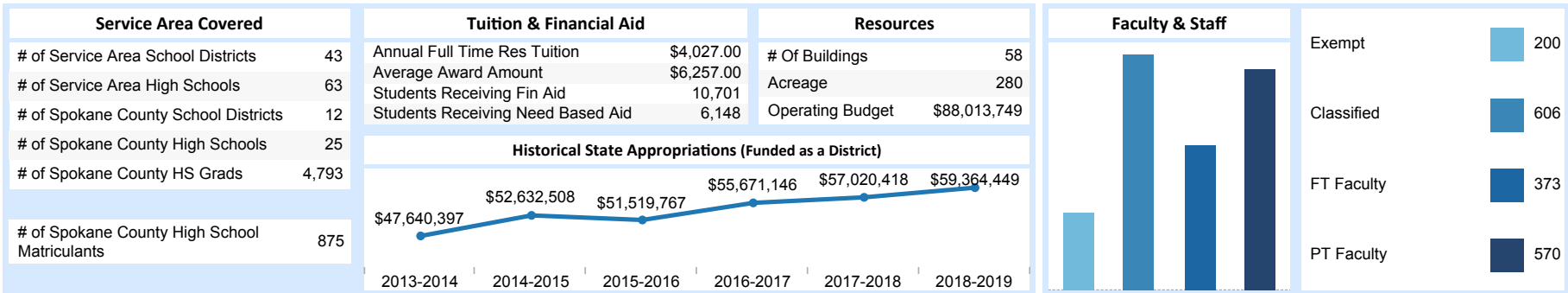
Institution
CCS

* Parameters are for this page only. If a section has zeros or is blank that means we do not have that data at this time.

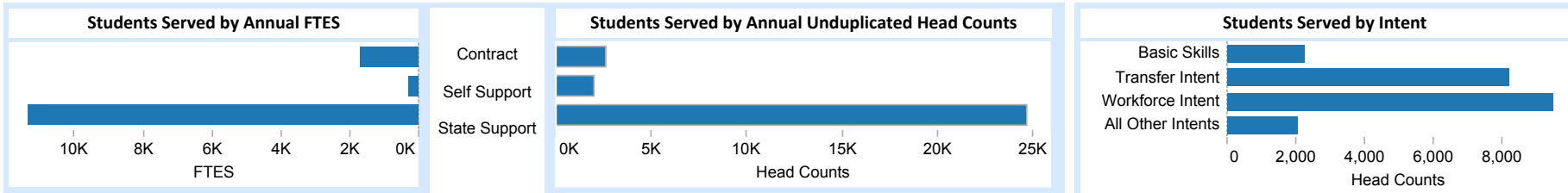


Community Colleges of Spokane is a community college district comprised of two accredited colleges, Spokane Community College and Spokane Falls Community College. In addition to serving a large urban and suburban population in greater Spokane, the district provides educational services to rural communities throughout a 12,302 square-mile region in Eastern Washington. This region includes all of Spokane, Stevens, Whitman, Ferry, and Pend Oreille Counties, as well as portions of Lincoln County.

Both colleges of CCS are accredited by the Northwest Commission on Colleges and Universities and governed by the Washington State Board of Community and Technical Colleges.



Student Count by Credit Load	Completions	Top 5 Certificates	Top 5 Degrees	Transfer Rate	36.7%
CreditLoad1-4: 1,769	Total Completers: 2,554	Utility Construction pre-Apprenticeship: 72	Associate in Arts - Associate in Arts: 1,115	Employment Rate	78.5%
CreditLoad5-11: 2,739	High School Completions Awarded: 102	Welding and Fabrication: 51	Nursing: 84	Full Time Pell Rate	60.2%
CreditLoad12-15: 2,492	Certs Awarded: 658	Medical Assistant: 34	Associate in Business: 36	State Student Faculty Ratio	18.6
CreditLoad16+: 10,837	Degrees Awarded: 2,104	Automotive Technology: 30	Automotive Technology: 31		
		Audio Engineering: 27	Business Management: 29		



Data Source: Unless otherwise noted in ToolTps, SBCTC Data Warehouse.
Developed by: CCS IR - BJW and AMM

We recognize that this dashboard may not be fully accessible to everyone. Please contact CCS Institutional Research 509-434-5240 if you need help with the data contained within.



AVC AT A GLANCE

2017-2018 Academic Year



VISION

To provide quality education that transforms lives

MISSION

Antelope Valley College, a public institution of higher education, provides a quality, comprehensive education to a diverse population of learners. We are committed to student success, offering value and opportunity, in service to our community.

VALUES

Education—We are dedicated to students, faculty, staff, and alumni in their endeavor for lifelong learning.

Integrity—We expect honesty, trust, candor, and professionalism from one another.

Excellence—We commit to the highest quality in all our endeavors, being responsive to our community in innovative ways.

Community—We create and foster relationships between AVC and its diverse constituents: students, faculty, staff, alumni, and the community at large.

AVC FACTS

District Size: **1,945 Sq. Miles** | Number of Buildings: **35**

2017-2018 Student Enrollment: **18,787**

Offering Associate Degree Programs: **92**

Certificate Programs: **60** | Bachelor Degree Programs: **1**

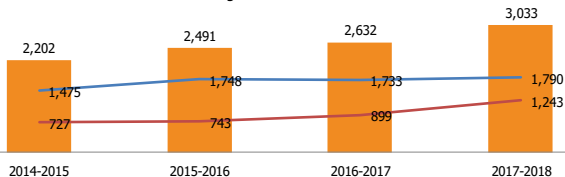
Antelope Valley College is fully accredited by the Accrediting Commission for Community and Junior Colleges/Western Association of Schools and Colleges (ACCJC/WASC). AVC's last reaffirmation of accreditation was Fall 2016.

OFFERINGS

- Associate Degree Programs
- Career Technical Programs
- Transfer/General Education Courses
- Basic Skills Courses
- Student Support and Instructional Support
- Workforce Preparation and Economic Development
- Personal Enrichment and Professional Development
- Open Educational Resource Courses
- Non-credit Courses
- Honors Program
- Bachelor's Degree in Airframe Manufacturing Technology

PROGRAM AWARDS

AVC Total Degrees Total Certificates Total



AVC STUDENT DEMOGRAPHICS 2017-2018

ETHNICITY

Hispanic 9,978 • 53%

White Non-Hispanic 3,761 • 20%

African-American 3,121 • 17%

Multi-Ethnicity 921 • 5%

Asian 785 • 4%

Other 221 • 1%

GENDER

Female 10,933 • 58%

Male 7,627 • 41%

Unknown 227 • 1%

AGE GROUP

19 or Less 5,651 • 30%

20 to 24 6,082 • 32%

25 to 29 2,563 • 14%

30 to 34 1,402 • 7%

35 + 3,089 • 16%

Top 10 Declared Majors at AVC, Fall 2017

1. Registered Nursing
2. Biological Sciences
3. Administration of Justice
4. AA-T Psychology
5. LAS: Arts and Humanities
6. Business Administration
7. LAS: Social/Behavioral Science
8. Undeclared
9. Child & Family Education
10. AS-T Business Administration

Antelope Valley College Quick Data

	2015-16	2016-17	2017-18	% Change 2015-16 to 2017-18
Annual FTES	11,139.6	10,906.5	11,069.4	-0.6%
Program Awards				
AA	1,080	1,035	1,094	1%
AS	668	698	696	4%
Certs 30+ Units	544	683	824	51%
Certs 18 to <30 Units	197	212	225	14%
Certs 6 to <18 Units	2	4	194	9600%
Total Awards	2,491	2,632	3,033	22%
	Fall 2015	Fall 2016	Fall 2017	% Change Fall 2015-2017
Student Enrollment	14,530	14,215	14,298	-1.6%
Unit Load				
Part-time (<12 Units)	10,229	9,847	9,991	-2.3%
Full-time (12+ Units)	4,097	4,170	4,063	-0.8%
Non-Credit	204	198	244	19.6%
Employee Count				
	891	946	956	7.3%



ANTELOPE
VALLEY
COLLEGE

3041 West Avenue K
Lancaster, CA 93536
www.avc.edu
(661) 722-6300

2301 East Palmdale Blvd.
Palmdale, CA 93550
www.avc.edu/palmdale
(661) 722-6400

IERP, September 2018

Antelope Valley College prohibits discrimination and harassment based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, or sexual orientation.

BLOOM'S TAXONOMY PEDAGOGY WHEEL



From: Cal State TEACH: Technology Enhancement Project