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# Yavapai College Facilities Master Plan

September, 2022



1 welcome

Advising  
Financial Aid  
Answer Center  
Bookstore  
Learning Center  
...an



Dr. Lisa Rhine  
President

## Letter from the President

Dear colleagues, students, and community members,

We are at a turning point in higher education. The traditional business model at colleges and universities needs to be reexamined. With the proliferation of high-quality, affordable online classes, traditional colleges need to ensure their brick and mortar facilities add value to the students they serve, not just costs.

In the Summer of 2021, Yavapai College (YC) began working with architectural firm SmithGroup to develop the 2022-2030 Facilities Master Plan. As you will see from the following report, they have reviewed strategic YC documents, conducted exhaustive analyses, and solicited input from internal and external stakeholders. Their research led to the enclosed list of long-term Master Plan recommendations, which are intended to ensure our facilities remain a source of competitive advantage for our college and the communities we serve.

Updating our facilities as outlined in this report is needed for YC to continue to offer academic programs and student support services that lead to economic prosperity both at the household and community levels.

I wish to thank our faculty, staff, administrators, governing board and community constituents, who worked diligently to create a Facilities Master Plan that positions YC for our future challenges and opportunities. The team led by Vice President Clint Ewell has devoted extraordinary time and energy toward making Yavapai College a premier place to learn, work and live.

Sincerely,

Lisa Rhine, Yavapai College President



The Charles "Chuck" Henry Pavilion  
Honoring his service to the State of Idaho  
and his family's deep roots in the state  
1917 - 1977

The Pavilion  
Honoring the memory of the late  
Charles Henry and his family  
and their deep roots in the state  
1917 - 1977



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## SECTION 1

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# Executive Summary

- INTRODUCTION
- STRATEGIC PLAN ALIGNMENT
- PLANNING PROCESS
- KEY AREAS OF IMPACT





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" You Can Always Amend A Big Plan,  
But You Can Never Expand A Little One. "

-Harry S. Truman

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# Introduction

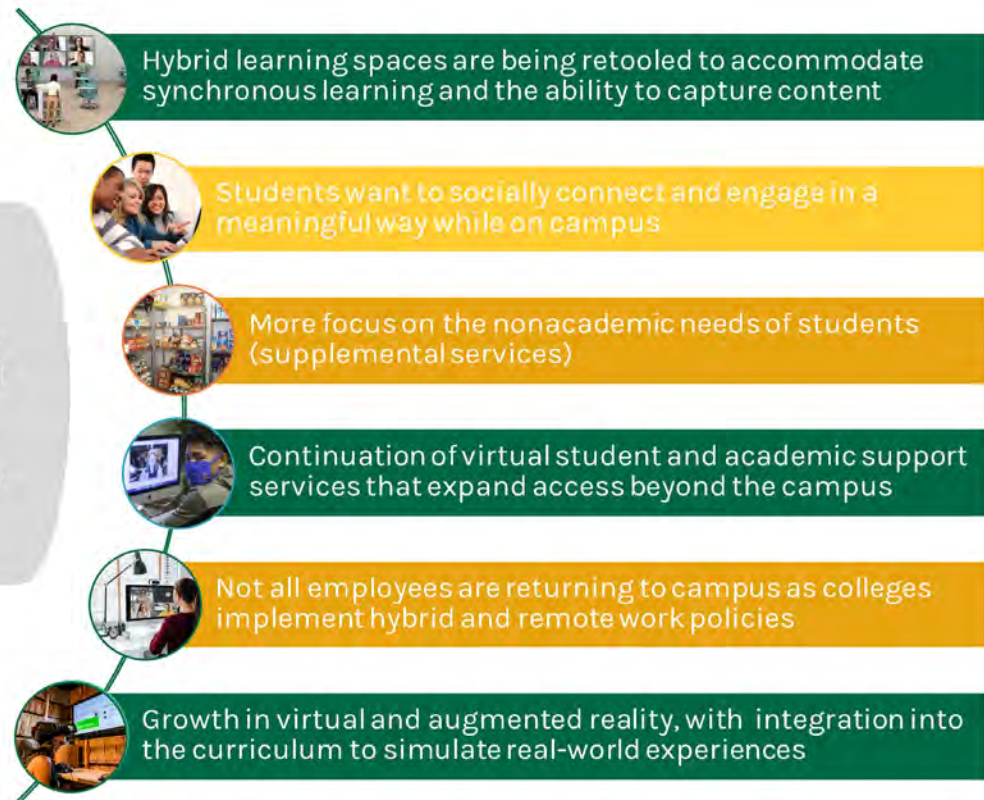
## ALIGNING STRATEGY, FACILITIES, AND FUNDING

Yavapai College's 2022 Facilities Master Plan (Facilities Master Plan) is a multi-year roadmap focused on operational excellence and efficiency. The recommendations highlighted herein represent a critical alignment of strategy, facilities, and funding. This plan is designed to serve as a living document that is adaptable to changes, allowing flexibility in its application as specific planning initiatives and goals evolve over time, without compromising its core value and principles.

Through these recommendations, Yavapai College is positioned to effect positive change at each of its campuses and centers. The College is committed to reinforce student success, consolidate physical assets, create flexible learning environments, emphasize workforce development and skill-based training, and promote institutional efficiency.

Detailed planning initiatives, outlined within this report, are the result of extensive input from numerous faculty, staff, students, and community members. The Facilities Master Plan identifies strategies to further Yavapai College's mission of transforming lives and communities through higher education in Yavapai County and central Arizona.

### Key Trends that shaped the YC Campus Master Plan



# Strategic Plan Alignment

## INTEGRATED PLANNING

Yavapai College believes in the power of integrated planning. By design, the College established the “Future Focused. Community Inspired. Strategic Plan 2023-2025” in alignment with the Academic Master Plan, Financial Plan, and the Strategic Enrollment Management (SEM) Plan.

This guiding document served as the foundation, and also the inspiration, for development of the Facilities Master Plan. Both plans are data-informed and evidence-based. In addition, each process included significant campus and community input.

The Facilities Master Plan initiatives outlined in Section 3 are organized and prioritized to support the four goals of the Strategic Plan. Together, they underpin the cultural, economic, and educational directionality of the Facilities Master Plan. Each goal is designed to inspire all of us and showcase Yavapai College’s commitment to its students and community.



Strengthen our commitment to individual and organizational efforts to build respect, dignity, caring, equality and self-esteem in all employees and students.



Ensure a program mix that prepares graduates to obtain living wage jobs.



Respond to shifting community and workforce needs to serve adult learners.



Redefine time, place, and methods of educational delivery to create a more learner-centric environment.

## GOAL 1: BELONGING

Yavapai College's first strategic goal includes creating a sense of belonging for all students within their learning environment. In a recent research study, almost 94% of students agreed that campus space mattered in achieving a sense of belonging. This goal is critical for the Facilities Master Plan for many reasons:

- Current research suggests that minority and first-generation students have a higher sense of belonging at two-year colleges than their counterparts at four-year institutions.
- Students with especially low levels of a sense of belonging early on are extremely predictive of low student persistence later.

Factors that improve a student's sense of belonging include meeting students' basic needs, providing focused outreach efforts and activities that connect students with other students and faculty, and creating spaces to socially connect to others in their area of study. This Facilities Master Plan includes the creation of spaces and facilities to enhance Belonging.

" Student communities are constructed from a 'geography of places', campus spaces which are student friendly and facilitate interactions. "



\*Source: Belonging, The Physical Space of the Campus and How it is Perceived by Students, Journal of Learning Spaces Volume 10, Number 2. 2021



## GOAL 2: LIVING WAGE

Data from the Bureau of Labor Statistics (BLS) reveals that the unemployment rate among people who have a certificate or degree is significantly lower than that of people who have a high school diploma or less than a complete high school education. In addition, earnings increase significantly as a worker's degree of education rises.

Yavapai College's second strategic goal, Living Wage, ensures that the skills needed to secure a living wage are part of the curriculum. This includes a focus on digital literacy and acquiring a understanding of newer technologies such as Artificial Intelligence (AI), Augmented Reality (AR)/Virtual Reality (VR), and Data Analytics & Data Science.

VR technology is now being incorporated in the education and health fields because it provides immersive learning environments. It situates students in an interactive three-dimensional space where they have the flexibility to practice skills, respond to content in context, and interact with peers in real-life problem-solving situations. All skills that are needed for the new economy.

The Facilities Master Plan recommends technology enhancements to existing classrooms and a digital commons initiative that will assist students in learning relevant skills for living wage jobs.





## GOAL 3: ADULT LEARNERS

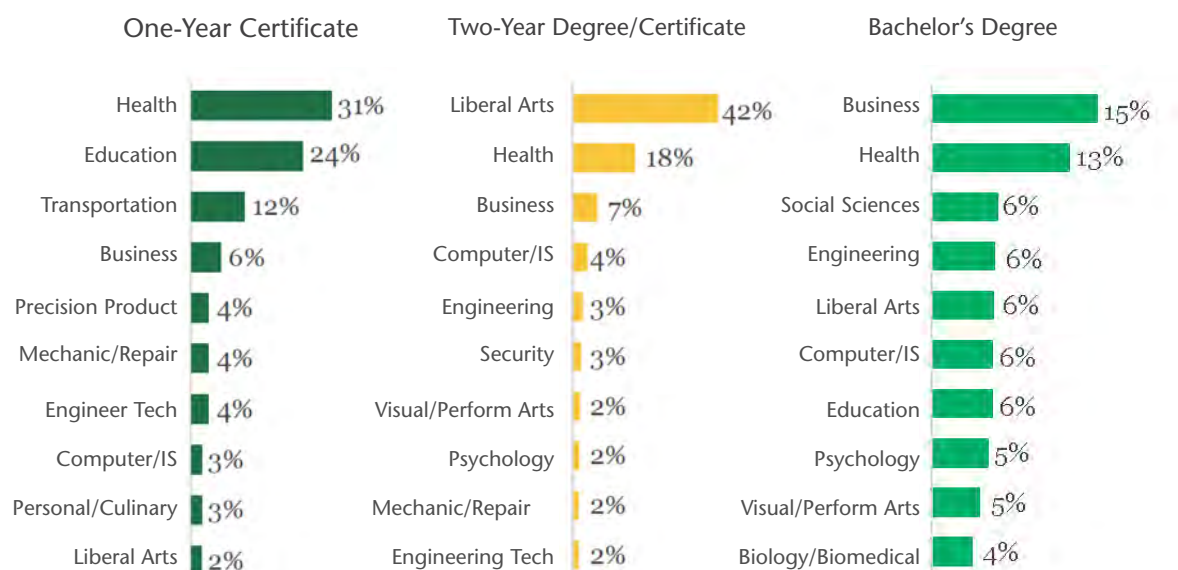
This goal includes enrollment growth of non-traditional age and Hispanic learners, with the goal of increasing educational attainment levels in Yavapai County and the State of Arizona.

Across the nation community colleges have increasingly looked to non-traditional enrollment (or re-enrollment) as there are tens of millions of adults with some college credits but no degree or credential. Based on recent enrollment reports, the number of Hispanic students in community colleges increased by 1.7% in 2020, but it decreased by 13.7% in 2021. The fall in Hispanic student college enrollment is related to the impacts of the global pandemic.

The monetary benefits of a college-level credential are large and growing, so supporting non-traditional and Hispanic students to finish college can improve their labor-market prospects. To get more students to return to higher education, will require the College to focus on finding ways to address barriers that prompted many to drop out initially, including conflicts with work and family obligations, childcare, housing, transportation and more.

Several initiatives address this third strategic goal, including enhanced spaces for supplemental support services, drop-in childcare, and the potential for affordable family housing.

## U.S. HIGHER EDUCATION ADULT GRADUATES - TOP 10 PROGRAMS



## U.S. HIGHER EDUCATION ADULT ENROLLMENT BY AGE GROUP



Source: Data from The Society for College and University Planning (SCUP)



## GOAL 4: DELIVERY

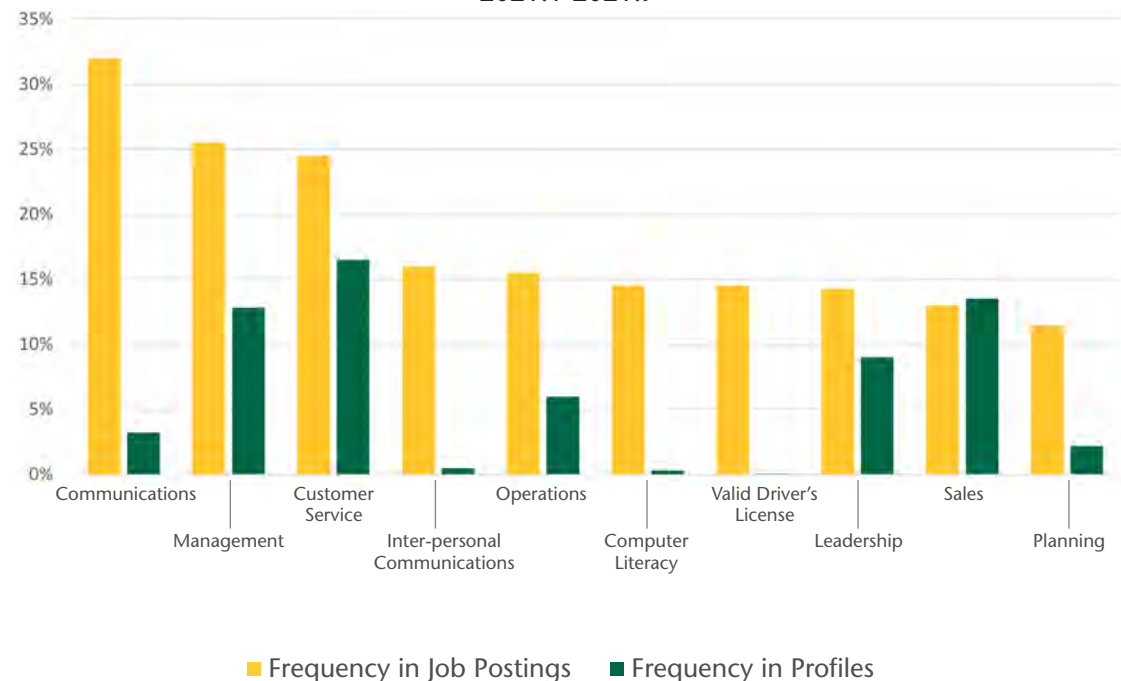
Yavapai College's fourth strategic goal focuses on providing greater flexibility in terms of course delivery and pathway options. Today's learners are juggling multiple roles that present challenges to academic study and participation in campus-based activities. This increases the likelihood they will look for programs that provide flexibility in time and location for both course completion and access to key student services.

The 2022 EDUCAUSE Horizons Report states that the pandemic has catapulted the world into a digital age of remote professional and social interactions. The normalization of hybrid and online learning models is well suited for parallel growth in personalized learning experiences and micro-credentialing programs.

The Facilities Master Plan acknowledges the movement towards digital learning and the need for student services and academic support—both virtual and in-person. Technology upgrades will be needed across the District to provide spaces that support digital learning, fast-track, and flexible on-ramps. Spaces are also needed to support the development of online content and ongoing faculty and staff development.

### YAVAPAI COUNTY JOB POSTINGS AND RESUME PROFILES ASSOCIATE DEGREE COMMON SKILLS

2021.1-2021.9



Source: EMSI Burning Glass program demand gap model

# Planning Process

## PROJECT TIMELINE

The nine-month planning process was an inclusive, transparent, and collaborative effort. It was divided into three phases with each phase building upon the previous one to develop plans that provoked the imagination and generated excitement.

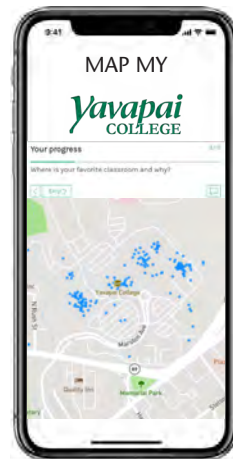
Yavapai College's Facilities Management team led the planning process with regular input and guidance from two college leadership committees, noted below.

### ■ Facilities & Technology Committee

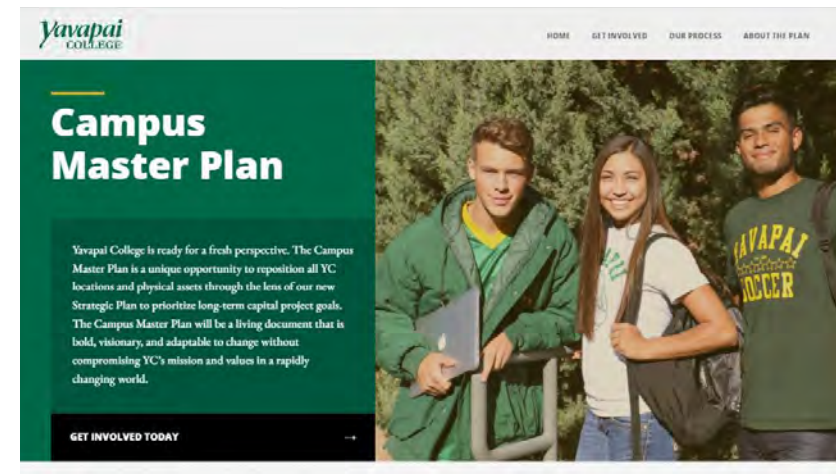
This committee was comprised of individuals representing a diverse group of faculty, staff, and administrators from across the institution. It served in an advisory capacity, providing insight and guidance on operational, programmatic, and technical aspects of the Facilities Master Plan.

### ■ Executive Leadership Team

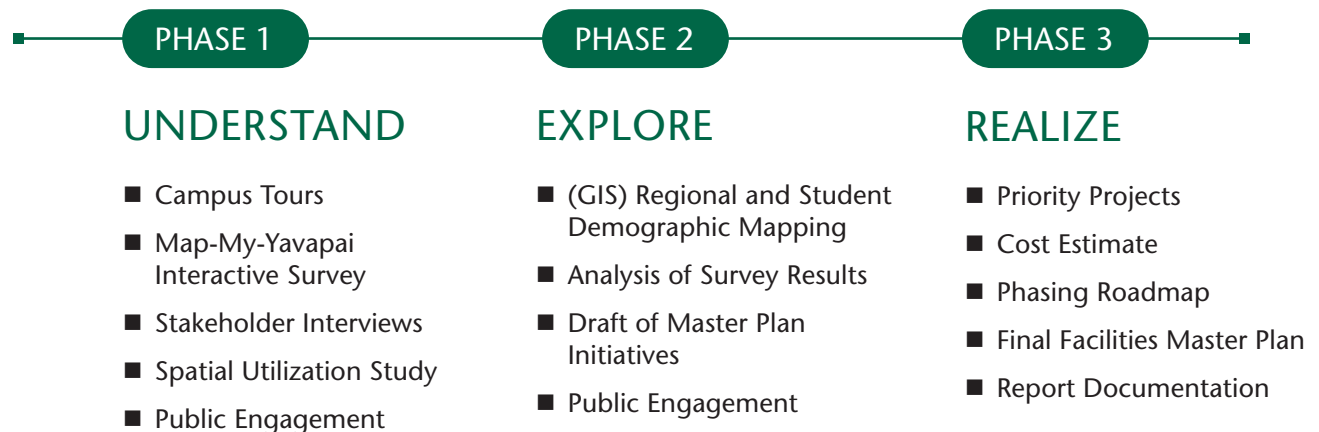
Led by Yavapai College President, Dr. Lisa Rhine, the Executive Leadership Team was engaged during each key milestone in the planning process to provide strategic guidance and decision-making.



MAP-MY-YAVAPAI INTERACTIVE SURVEY



Facilities Master Plan WEBSITE



## ENGAGEMENT SUMMARY

The planning process was transparent and provided Yavapai College constituents with the opportunity to develop a collective vision for the future. Hundreds of campus and community stakeholders shared their input to help guide identification of the proposed initiatives outlined in this Facilities Master Plan.

### ■ Virtual Meetings

As part of a robust campus engagement approach, the planning team conducted over 100 virtual meetings in small groups or one-on-one meetings with students, faculty, staff, administrators, business/ industry partners, and community members.

### ■ In-Person Open Forums

The planning team hosted six in-person open forums during critical stages of the planning process to garner stakeholder input. Valuable feedback collected from students, faculty, staff, and community members helped shape the direction of the Facilities Master Plan.

100 STAKEHOLDER  
VIRTUAL  
INTERVIEWS

1790 STUDENT  
SURVEY  
RESPONSES

6 PUBLIC  
OPEN  
FORUMS

316 STAFF &  
ADMINISTRATOR  
SURVEY  
RESPONSES

162 FACULTY  
SURVEY  
RESPONSES

18 MEMBER  
ADVISORY  
COMMITTEE

243 LIFELONG  
LEARNER  
SURVEY  
RESPONSES

### ■ Facilities Master Plan Website

To allow for online engagement and convey information to the broader public, a Facilities Master Plan website was developed. The website provided information about the overall planning process, engagement opportunities, and access to open forum presentations to allow the public to stay up-to-date on planning activities.

### ■ Map-My-Yavapai Interactive Survey

This virtual engagement tool allowed students, faculty, staff, administrators, lifelong learners, and community members to share their unique campus experiences via a mobile app. The survey successfully collected input from over 2,500 participants. The number of stakeholders reached was far greater than other engagement methods.

# Key Areas of Impact

## LEARNING/DIGITAL COMMONS

### ■ Strategic Goals: Adult Learners, Living Wage

Some of the most important skills in the workplace are analytical skills, knowledge of computer software, and digital literacy. Digital literacy is the ability to find, evaluate, utilize, share, and create content using information technology resources and the Internet. A Learning/Digital Commons is a state-of-the-art, multimedia collaboration center, curated around the idea of enriching the student experience and providing students access to books and library resources, digital tools, and

academic support systems they need to succeed in their program of study. The Facilities Master Plan identifies a series of projects to support creation of Learning/Digital Commons in Building 19 at Prescott Campus and Buidlign M at Verde Vally Campus, which include shared space for the library, information technology support, tutoring, collaboration, content creation, meetings, socialization, and studying.



## INTEGRATION AND EXPANSION OF HEALTH SCIENCES

### ■ Strategic Goal: Living Wage

Recent employment projections indicate an increase in job demand for skilled nurses and allied health technicians. Current classrooms and simulation spaces on the Prescott Campus for the Nursing and the Emergency Medical Technician (EMT) programs are at capacity and do not reflect best-practices for simulation and testing. A recent occupational demand gap analysis noted a regional need for allied health occupations not currently offered by the College.

Based on projected enrollment growth in the Health Sciences, and the advantages of bringing all Health Sciences programs together into one building, a new integrated Health Sciences center is needed, which focuses on partnerships and interdisciplinary pedagogies that provide students with an improved understanding of healthcare practices to help them secure better jobs.



## WORKFORCE DEVELOPMENT

### ■ Strategic Goal: Living Wage

An opportunity exists to expand workforce training programs to better adapt to the local labor market, and enable greater access to high-quality jobs. Three key examples are noted below:

There are more than 120 Arizona craft breweries and taproom locations in Arizona, making 40 different beer styles and employing more than 10,000 workers. Closely related, there are 48 distilleries in Arizona registered with the Alcohol and Tobacco Tax and Trade Bureau. Piggybacking on the success of the College's Viticulture and Enology program, the College's Brewing Technology program could be expanded and a related program in craft spirits could be established at the Verde Valley Campus.

Truck drivers with commercial driver's licenses represent a high demand job throughout the county. The College's Chino Valley Center is home

to the Commercial Driver Training (CDT) program and the ADOT-authorized road-testing site. The Facilities Master Plan recommends expansion of the CDT program to the Verde Valley Campus to accommodate additional enrollments and enlarge the size of the testing area to accommodate multiple tractor/trailers.

Lastly, Yavapai College is one of the first colleges in the nation to offer a 3D Construction Program. The program features the emerging technology of 3D printing to construct houses by printing the interior and exterior walls of homes using a special concrete mixture. The College's academic program trains students to operate and perform maintenance on the machines. As the program is in its infancy, additional resources and space at the Chino Valley Center are feasible to accommodate future enrollment growth.



## STUDENT HOUSING

### ■ Strategic Goal: Belonging

Yavapai College has a longstanding tradition of student housing at the Prescott Campus. However, the lack of student housing at the Verde Valley Campus may be limiting the VVC's ability to grow both general enrollment and destination programs such as Culinary, or Viticulture & Enology. In Spring of 2020, the college received a report from Brailsford & Dunlavey consultants indicating that YC could support an additional 74 beds at the Prescott Campus and 56 beds at the Verde Valley Campus. This issue has been

compounded over the past decade with the rapid rise in local community housing prices which have far outpaced the local and regional increase in wages. Anecdotal evidence indicates this may be affecting the college's ability to recruit qualified candidates to fill job vacancies, in addition to the unmet student demand.

To address this challenge, and in support of the 2023-2025 Strategic Plan, the Facilities Master Plan recommends exploring housing

options. Furthermore, the Facilities Master Plan recommends beginning by incrementally adding up to 60 beds of student housing at the Verde Valley location, followed by meeting student housing at the Prescott campus. Finally, the college should explore the financial viability of creating affordable college employee housing options in both the East and West county.

## ON-CAMPUS EARLY COLLEGE ACADEMY

### ■ Strategic Goal: Belonging

The Early College Academy (ECA) model is a program that allows students to earn a significant amount of college credit, and in some cases an associate degree or credential, by the time they graduate from high school. Projects described in

the Facilities Master Plan create a partnership with the local school district to create a ECA on both the Prescott and Verde Valley Campuses. Existing classroom space can be used for this program.





## SECTION 2

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# Yavapai College Today

- YAVAPAI COLLEGE LOCATIONS
- ENROLLMENT TRENDS & ASSUMPTIONS
- GIS DEMOGRAPHIC MAPPING
- EMSI | BURNINGGLASS PROGRAM DEMAND GAP ANALYSIS
- ACADEMIC SPACE UTILIZATION





# Yavapai College Locations



## PRESCOTT CAMPUS

The Prescott Campus is the largest Yavapai College location situated on the west side of the county. It offers a wide variety of facilities including academic buildings, a student center, residence halls, a performing arts center, art gallery, athletic facilities, the OSHER Lifelong Learning Institute (OLLI), a library and computer laboratory, veterans services, and more, within close proximity to downtown Prescott.



## VERDE VALLEY CAMPUS

The Verde Valley Campus in Clarkdale is the largest Yavapai College location situated on the east side of the county. This campus provides academic facilities, OLLI and Community Education programming, a library, art gallery, and student center. It is especially unique in that it supports Yavapai College's Southwest Wine Center which offers comprehensive education from "vineyard-to-bottle" directly on the campus.



## PRESCOTT VALLEY CENTER

Located in the emerging population hub of Prescott Valley, the Prescott Valley Center houses most of Yavapai College's Allied Health programs such as Phlebotomy, Nursing Assistant, Medical Assistant, and Medical Records Technician. The Regional Economic Development Center is based here. An addition to the original building was completed in 2019.



## CAREER & TECHNICAL EDUCATION CENTER

Yavapai College's Career & Technical Education Center (CTEC) is home to the College's Trade and Technical programs. A recent facility expansion established a 108,000 square foot facility near the Prescott Airport. Programs include Welding, Advanced Manufacturing, Diesel Technology, Automotive and Auto Body, Fire Science, Aviation, Advanced Pre-engineering and more.



## CHINO VALLEY CENTER

The Chino Valley Center is home to the Horticulture, Aquaculture, Agribusiness, Equine, and Canine programs. The center features greenhouses, a horse paddock, classrooms, and teaching laboratories. This center also houses the Construction Building Technology laboratory, which is currently building a house using 3D printer technology on the site.



## SEDONA CENTER

Set in the Red Rocks of beautiful Sedona, the Sedona Center is a stunning architectural gem that serves as home to the College's Culinary Arts program, where students have access to two state-of-the-industry teaching kitchens: one savory and one pastry. The Sedona Center also offers programming for active adults via OLLI and Community Education program.

# Enrollment Trends & Assumptions

The College provided actual, estimated, and nine-year full-time student equivalent (FTSE) enrollments for each campus and center.

As online enrollment is reported separately, enrollment assumptions at each location are based on the numbers of students physically present at each location.

Numeric enrollment changes between Fall 2019 and Fall 2021 are the direct result of the global pandemic and the migration to remote learning in March 2020. Between Fall 2019 and 2021, the College increased enrollment by 54 FTSE or 1.6%, with significant fluctuations between the Prescott Campus and online.

The College has projected that enrollment will increase by 428 FTSE between Fall 2021 and Fall 2030, a 12.1% increase over the planning period. Despite this increase, some campuses and centers will have lower enrollments than in the past. For example, the Prescott Campus had 1,248 FTSE in Fall 2019 with a projected enrollment of 943 FTSE by Fall 2030 as many courses continue in a hybrid or remote delivery format.

YAVAPAI COLLEGE ENROLLMENT ASSUMPTIONS  
FTSE BY LOCATION: 2019 TO 2030

Location	Actual Fall 2019	Actual Fall 2020	Estimated Fall 2021	Numeric Change 2019-21	Projected Fall 2030	Numeric Change 2021-30
Chino Valley	70.9	48.3	72.0	1.1	81.0	9.0
CTEC	275.7	197.2	258.0	-17.7	289.0	31.0
Offsite	387.3	325.1	442.0	54.7	496.0	54.0
Online	1120.3	2318.6	1598.0	477.7	1792.0	194.0
Prescott	1248.1	124.0	841.0	-407.1	943.0	102.0
Prescott Valley	104.6	31.4	79.0	-25.6	88.0	9.0
Sedona	19.3	21.1	24.0	4.7	27.0	3.0
Verde Valley	239.9	49.5	206.0	-33.9	232.0	26.0
<b>Grand Total</b>	<b>3466.0</b>	<b>3115.2</b>	<b>3520.0</b>	<b>54.0</b>	<b>3,948</b>	<b>428.0</b>

Source: Office of Institutional Effectiveness & Research

It must be noted that enrollment assumptions do not take into account program initiatives noted in this document. For example, Nursing and Allied Health programs at the Prescott Campus are proposed to migrate to a new Health Sciences

facility at the Prescott Valley Center. This move will impact FTSE between these two locations if the College moves forward with this initiative.

# GIS Demographic Mapping

## REGIONAL INFLUENCES

Population and economic changes in Yavapai County have a direct influence on the College. These changes affect occupational demand and the availability of resources. As part of the planning process, the planning team considered a wide range of current and projected demographic datasets for Yavapai County to better understand the context in which the College currently operates. It also helps predict future trends and target areas of expansion. All Geographic Information System (GIS) Mapping utilized 2020 US. Census data and projections provided through ArcGIS.

A full report of regional mapping is included in the Appendix. Analysis included the following:

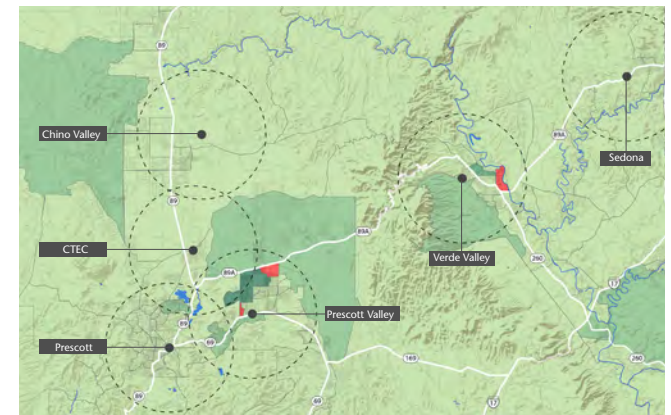
- Population Density
- Population Growth
- Median Age
- Diversity
- Hispanic Population
- Educational Attainment
- Social Vulnerability
- Poverty
- Income
- Housing Prices
- Mobility

## COLLEGE COMPOSITION

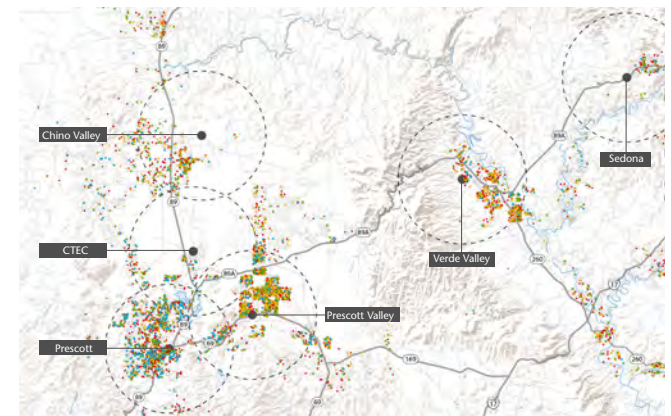
Parallel to the regional demographic mapping, the planning team also analyzed the College's current student composition during the Fall 2021 semester by attributes such as program enrollment, age, race, and ethnicity. This analysis provided a greater understanding of the College's current student body and distribution across the district.

A full report of student demographic mapping is included in the Appendix. Analysis included the following:

- On-Site Student Enrollment
- Online Student Enrollment
- Age Group
- Ethnicity
- Financial Aid Needs
- Distribution by Location
- Distribution by Program



REGIONAL GIS MAPPING EXAMPLE - POPULATION GROWTH



FALL 2021 ENROLLMENT GIS MAPPING EXAMPLE - AGE GROUP

# EMSI | burningglass Program Demand Gap Analysis

Yavapai College partnered with EMSI | burningglass, a leading provider of labor market data, to complete a program demand gap analysis. This analysis compares regional job demand to current program offerings and reveals potential areas of program expansion or contraction. The analysis focused on the gaps and surpluses in academic programs by award level. Programs with significant gaps were reviewed to ensure that adequate classroom and laboratory space would be available to accommodate potential growth.

## OCCUPATIONAL GAPS IN THE REGIONAL ECONOMY

The table on the next page notes the outcomes of the gap analysis. The graph excludes occupations that pay below a living wage and that require a high school/GED or lower level of formal education at the county and sub-county level (East and West).

Nursing Assistants, Bookkeeping, Accounting, and Auditing Clerks and Heavy and Tractor-Trailer Truck Drivers have significant gaps at the Certificate level. General and Operations Managers represents a great employment opportunity at the bachelor's degree level. Occupational opportunities vary between the East and West portions of the county. As an example, there is a larger occupational gap for Heavy and Tractor-Trailer Truck Drivers in the West (28 openings) versus the east (9 openings). At the bachelor's level, there is more opportunity for business professionals in the West.

The findings suggest the following:

- Program expansion of the Commercial Driver Training program beyond the current Chino Valley Agribusiness & Science Technology Center.
- The Medical Assistant certificate is offered at two locations (Prescott Valley Center and Verde Valley Campus) with adequate capacity for growth.
- Business and management certificate programs are typically offered online. If the College decides to offer business and management certificate programs in-person or develop a bachelor's degree, classrooms and computer labs have adequate availability at multiple campus and center locations.

## LARGEST JOBS THAT PAY A LIVING WAGE IN YAVAPAI COUNTY BY UNMET DEMAND

	Occupation	*Cert Gap	*Assoc Gap	*Bach Gap	Median Hourly Wage	Entry Level of Ed	Automation Index
Yavapai County	Heavy and Tractor-Trailer Truck Drivers	41	8	7	\$18.01	CERT	110
	General and Operations Managers	28	(4)	24	\$32.29	BACH	82
	Nursing Assistants	27	11	8	\$16.08	CERT	97
	Bookkeeping, Accounting, and Auditing Clerks	14	7	22	\$17.99	CERT	104
	Medical Assistants	13	9	6	\$16.30	CERT	97
West	Heavy and Tractor-Trailer Truck Drivers	29	6	5	\$18.00	CERT	110.1
	Bookkeeping, Accounting, and Auditing Clerks	6	5	15	\$17.99	CERT	103.6
	Nursing Assistants	14	7	5	\$16.08	CERT	97
	General and Operations Managers	19	(6)	9	\$32.30	BACH	82.2
	Medical Assistants	8	6	5	\$16.30	CERT	97.3
East	General and Operations Managers	9	1	15	\$32.28	BACH	82.2
	Nursing Assistants	13	4	3	\$16.09	CERT	97
	Bookkeeping, Accounting, and Auditing Clerks	7	2	7	\$17.99	CERT	103.6
	Heavy and Tractor-Trailer Truck Drivers	12	2	2	\$18.03	CERT	110.1
	Massage Therapists	5	3	2	\$18.19	CERT	86.5

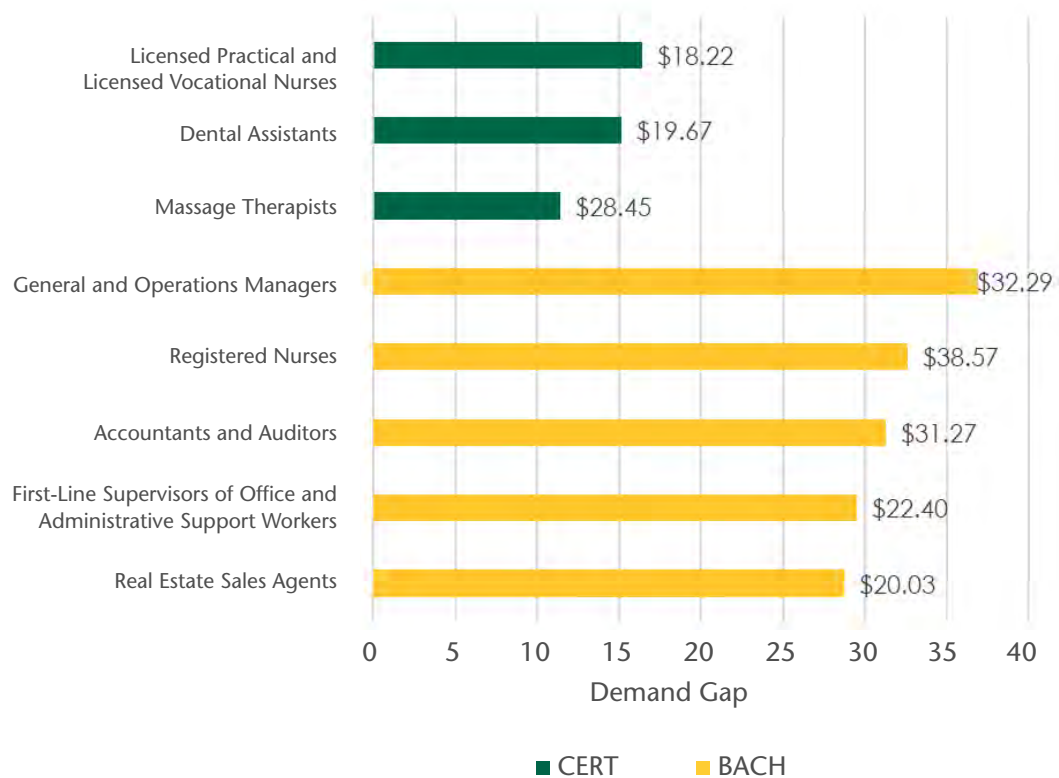
Source: Yavapai County Environmental Scan &amp; Program Demand Gap Analysis, EMSI | Burningglass, Feb 2022

## POTENTIAL PROGRAM FOR YAVAPAI COUNTY

The EMSI | burningglass report identified multiple areas of opportunity with above average living wages. Programs at the certificate level are noted by the green bars in the following chart. The lighter yellow bars represent potential programs at the bachelor's level.

Registered Nurses at the bachelor's degree level earn an excellent wage and are more in demand today given the focus on health as the U.S. emerges from the pandemic. Another possibility is to look at offering a bachelor's degree in Operations Management & Supervision program to provide job opportunities for General & Operations Managers at that award level, given that the college currently offers the program at the Certificate and Associate degree level. The Licensed Practical/Vocational Nurse and Dental Assistant job categories have notable gaps and pay livable wages. These could be great opportunities for new programs and partnerships.

### NEW PROGRAM ADDITIONS



Source: Yavapai County Environmental Scan & Program Demand Gap Analysis, EMSI | Burningglass, Feb 2022

As part of the Facilities Master Planning process, the planning team reviewed potential new programs in related healthcare and business occupations. Health occupations provide critical services to residents in Yavapai County and completers could likely find employment in the county or other areas of the state. As a result, new healthcare programs were factored into the master plan for the Prescott Valley Center.



# Academic Space Utilization

## UTILIZATION METRICS

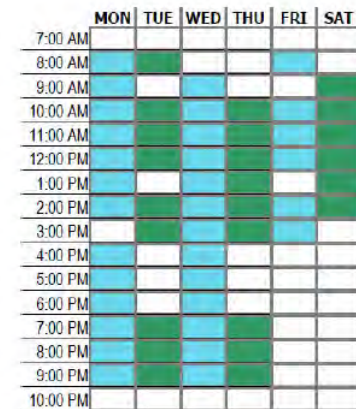
During the planning process, a utilization analysis was completed for each campus and center for the Fall 2019 (pre-COVID) and Fall 2021 (Post-COVID) semesters. The purpose of the utilization analysis was to understand how efficiently the College was using classrooms and laboratory spaces at each location. The analysis was also used to determine the quantity of classrooms needed at future enrollment levels.

The utilization analysis was completed using two primary data sets supplied by the College: facilities and course data. Portions of the facilities inventory were field verified for accuracy and space discrepancies were reviewed and modified accordingly.

These quantitative data sets were analyzed with space modeling software. Several reports were generated to review the variances so that an acceptable level of accuracy could be achieved.

There are three key metrics of utilization:

- The **Average Weekly Room Hours (WRH)** is the number of hours (averaged over the semester) that classrooms and laboratories are used for scheduled instruction.
- The **Seat Fill** is the average percentage of seats or stations occupied during scheduled use.
- The **Average Assignable Square Feet (ASF) per Station** equates to ASF of space per student station or seat. It is calculated by dividing the size of the room by the number of stations. The College averages 30 ASF per station for Fall 2021 with a low of 24 ASF per station (Prescott) and a high of 35 ASF per station (Verde Valley). ASF per station varies based on the type of technology in the room and the type of furnishings.



WEEKLY ROOM HOURS



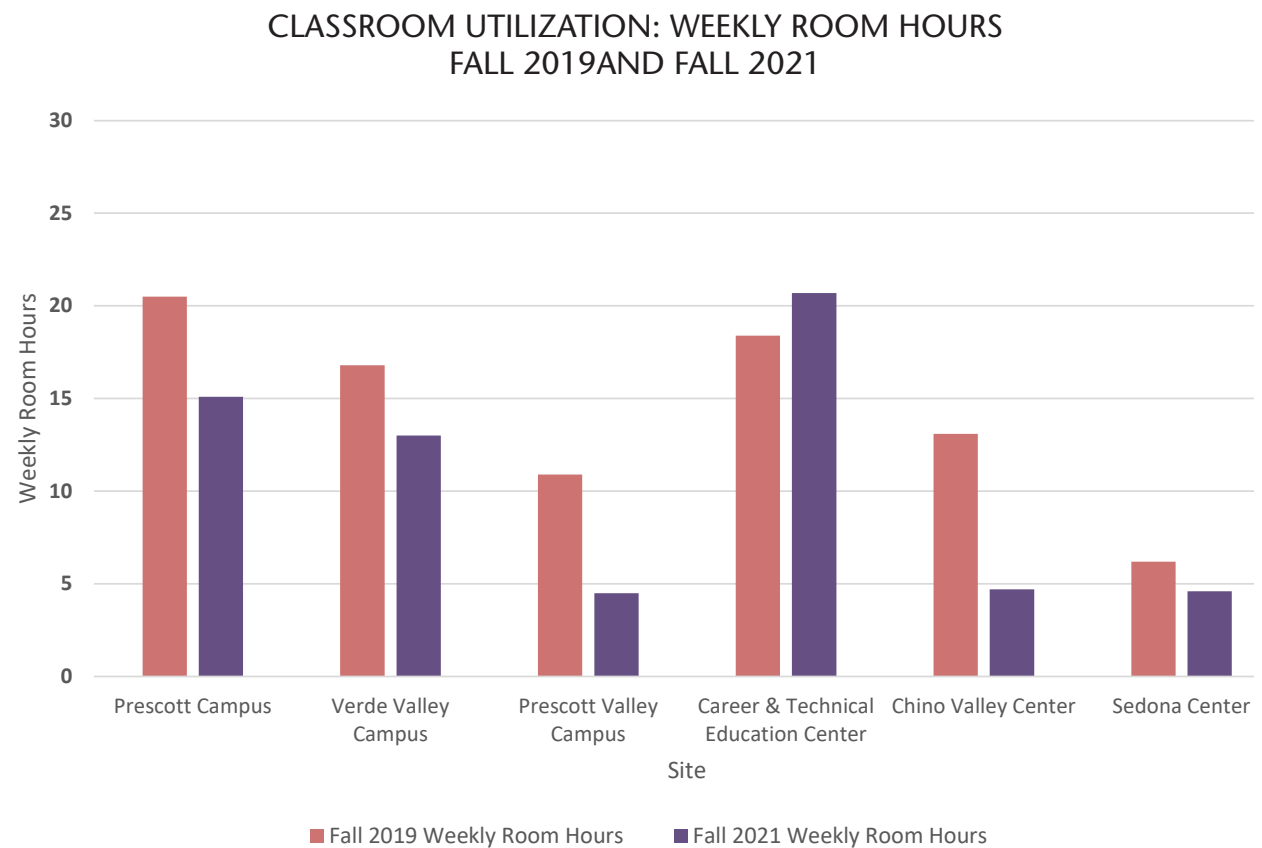
SEAT FILL OR OCCUPANCY

## CLASSROOM UTILIZATION BY CAMPUS AND CENTER

### AVERAGE WEEKLY ROOM HOURS

A total of 55 classrooms were noted in the facilities inventory. On average, classrooms were utilized 14 hours per week during the Fall 2019 semester and 10 hours per week during the Fall 2021 semester, well below accepted guidelines. The graph notes WRHs by location. Differences between the two data points can be attributed to a larger number of hybrid and online courses.

The most common classroom utilization guideline currently in use (pre-COVID) is 30 hours per week. However, two-year colleges are still recovering from the impact of the global pandemic and enrollment declines. More recent studies suggest that actual WRH utilization may be lower.

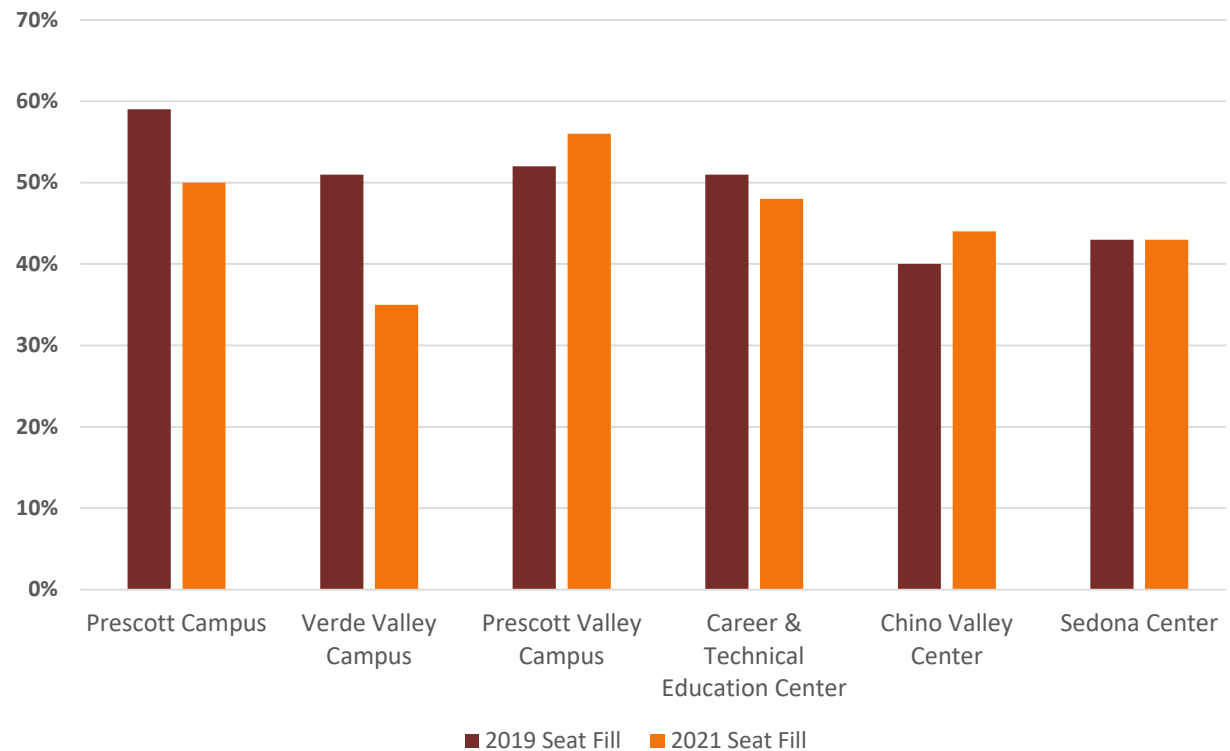


## SEAT FILL

The percentage of seats filled during scheduled use averaged 49% for Fall 2019 and 46% for Fall 2021 for all locations. The outcomes varied by location but suggest that approximately half of the number of seats in each room were occupied during scheduled use.

The most widely used seat fill guideline is 65%. The impact of the global pandemic and the requirement of social distancing in classrooms has lowered the occupancy metrics in the short-term. Results are inconclusive if this trend will continue in the long-term.

CLASSROOM UTILIZATION: SEAT FILL PERCENTAGE  
FALL 2019 AND FALL 2021



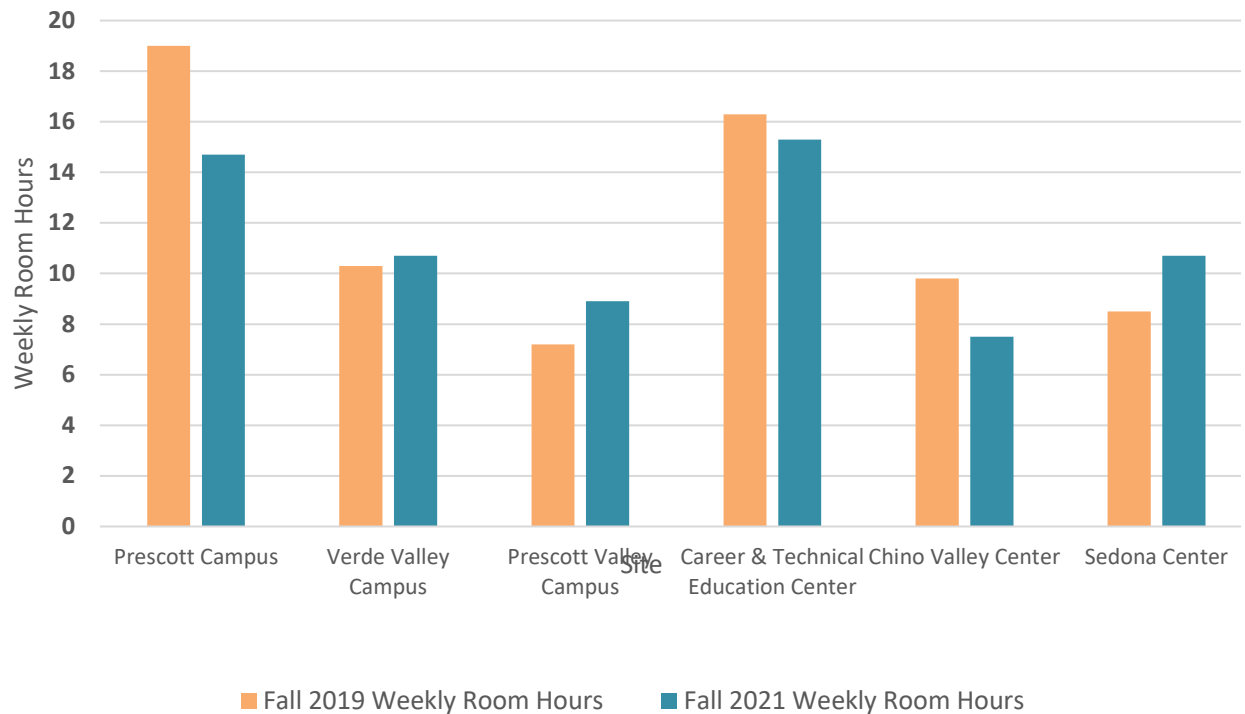
## TEACHING LABORATORY UTILIZATION

### AVERAGE WEEKLY ROOM HOURS

The College has 75 teaching laboratories at six instructional locations, comprising a total of 151,116 ASF. Utilization averaged 12 hours per week for Fall 2019 and 11 hours per week for Fall 2021. As noted in the graph, outcomes varied widely between the different campuses and centers. Seat fill percentages trended downward between 2019 and 2021 at three of the six locations, mostly due to the global pandemic.

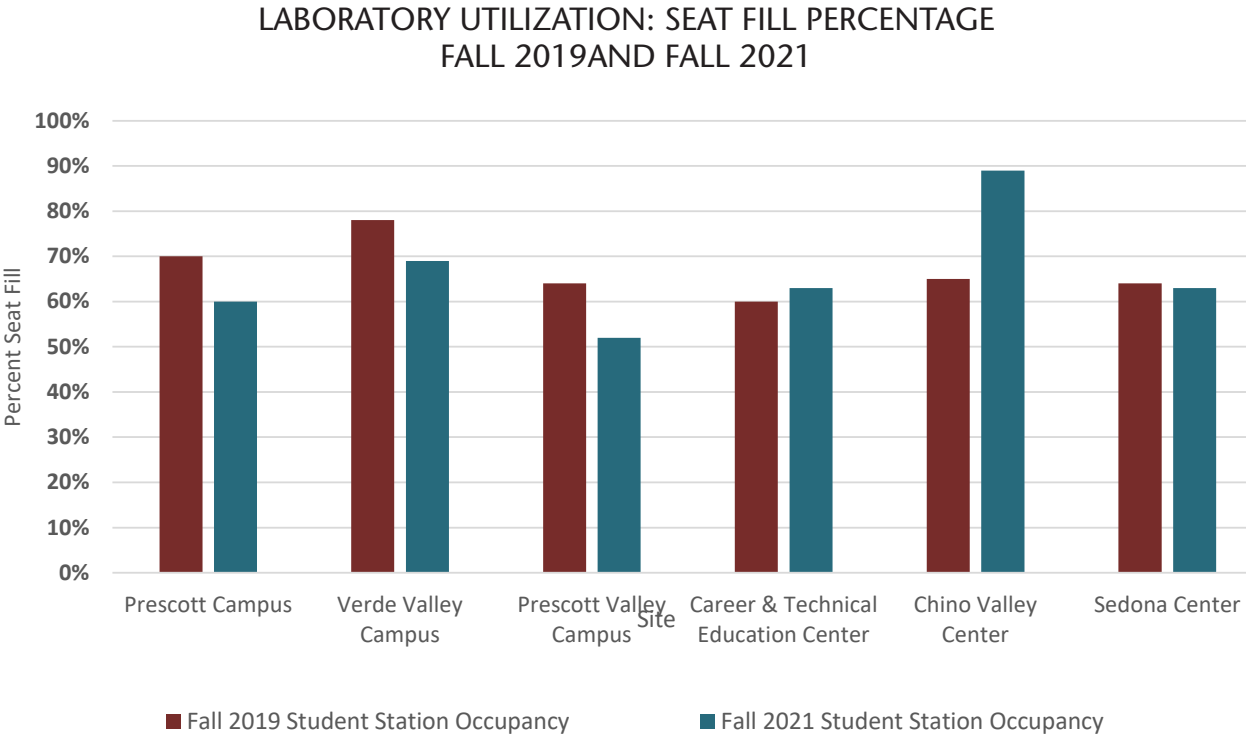
Guidelines suggest a range of 20 to 28 hours per week, depending on the program. Overall, the College is utilizing approximately half of their teaching laboratories efficiently. As a result, there is capacity to add additional courses or sections in many programs.

LABORATORY UTILIZATION: WEEKLY ROOM HOURS  
FALL 2019 AND FALL 2021



### SEAT FILL

The percentage of seats filled across all sites averaged 67% in Fall 2019 and 66% in Fall 2021. As noted in the graph, seat fill at the Chino Valley Center averaged 89% and skewed the average for 2021. The seat fill capacity in many laboratories was close to established guideline metrics, indicating that these laboratories were at, or approaching, course seating capacity. While 80% seat fill is the most used rate in guideline targets, most colleges rarely achieve it. A range between 70% to 76% is more common.





## SECTION 3

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# Planning Initiatives

- LIST OF PLANNING INITIATIVES
- PRIORITY PROJECTS





# Planning Initiatives

Yavapai College linked strategic, academic, enrollment, and financial master plans to develop tailored planning initiatives. Each of these opportunities translate strategy into physical recommendations and facilities improvements. Listed on the following pages, the Planning Initiatives are color keyed to the four Strategic Goals: Belonging, Living Wage, Adult Learners, and Delivery.

## PRIORITY PROJECTS

### On-Campus Early College Academy

This initiative aims to create a partnership with the local school district to create a ECA on the Prescott and Verde Valley Campuses. Existing classroom space will be used for this program.

### Renovation of the Old Learning Center Space

This initiative includes renovating the vacant space on the 2nd floor of Building 1 for classrooms and offices after the Learning Center is moved to Building 19.

### Student Housing

This initiative includes new construction of 60 beds of student housing at the Verde Valley Campus.

### Integration and Expansion of Health Sciences

This initiative establishes a new Health Sciences Center at the Prescott Valley Center, including the construction of a new building.

### Electric/Hybrid Vehicle Program Laboratory

This initiative provides funds to re-purpose space and acquire related technologies at CTEC to train students to maintain and repair the most common hybrid and electric vehicles. There is also an opportunity for a high school partnership near the Verde Valley Campus.

### Regional Economic Development Center Relocation

This initiative relocates the Regional Economic Development Center offices at Prescott Valley Center to the 1st floor for greater visibility and public access.

### Commercial Driver Training Program & Testing Site Expansion

This initiative expands the CDT program to the Verde Valley Campus to accommodate additional enrollments and enlarges the size of the testing area to accommodate multiple tractor/trailers.

### Fermentation Expansion with Craft Brewing and Distilling Program

This initiative expands the College's Brewing Technology program, creates a related program in craft spirits, and provides additional space for the College's Viticulture program at the Verde Valley Campus.

### Learning/Digital Commons

This initiative includes shared space for the library, information technology support, tutoring, collaboration, content creation, meetings, socialization, and studying at the Prescott and Verde Valley Campuses.

### Acoustical/Technology Upgrades for Meeting Rooms

This initiative provides acoustical and technology solutions to improve voice recognition at the Sedona Center.

### District ITS Workspace & Front Service Desk

This initiative relocates the helpdesk and staff to the core of the Prescott Campus, allowing for the repurposing of space in Building 6.

## LONG-TERM PROJECTS

### Partnership Community Housing Development

This initiative explores a variety of innovative housing options at the Verde Valley Campus and the Chino Valley Center.

### Athletics Indoor Space Expansion

Office space is needed for new coaches and assistants. Growth in competitive athletics will require expansion of the College's Fitness Center.

### NCAA Soccer Field with Restrooms, Concessions and Bleachers

The number of competitive sports is expanding at the Prescott Campus, including men's and women's basketball, and women's soccer. A lighted soccer field is needed on the campus.

### 3D Construction Program

Yavapai College is one of the first colleges in the nation to offer a 3D Construction program. This initiative provides additional resources and space at the Chino Valley Center to accommodate future enrollment growth.

### Student Services Onboarding Improvements & Virtual Learning & Testing Center Upgrades

Student services are being downsized or rightsized as hybrid and digital technologies are implemented. This initiative includes minor renovations of student onboarding areas at the Prescott and Verde Valley Campuses.

### Campus Signage & Wayfinding Improvements

This initiative standardizes building identification and installs appropriate directional signage on the Prescott and Verde Valley Campuses.

### Single Stop Space For Wraparound Services & Drop-In Childcare

This initiative includes renovation existing space into food pantry, clothes closet, community room, and drop-in childcare at the Prescott and Verde Valley Campuses.

### Bookstore Relocation & Service Center

This initiative relocates the bookstore from Building 1 to Building 7, creating a consolidated service center at the Prescott Campus.

### Collaboration Areas & Student Study Spaces & Student Center

This initiative includes the renovation of student center and dining areas on the Prescott and Verde Valley Campuses.

### Multicultural Center & C-Store

Create a multicultural center on the Prescott and Verde Valley Campuses, and a convenience or C-Store at the Prescott Campus.

### District Central Warehouse

Based on current space guidelines, the College has a deficit of warehouse space. This initiative re-purposes one of the older buildings on the Prescott Campus into a warehouse facility.

### Classroom Technology for Hybrid Flexibility

This initiative includes upgrading technology in up to 30% of classrooms to accommodate both hybrid and HyFlex learning formats at all campus and center locations.

# Priority Projects

The following section presents an implementation roadmap for the Facilities Master Plan. All projects are organized into categories highlighting project type, location, description, and cost. Additionally, each project opportunity requiring is further organized with a floor plate or site plan and written description, providing the rationale and tactical implementation steps. Careful consideration has been taken to ensure that these projects utilize available fiscal resources and reflect responsible sequencing.

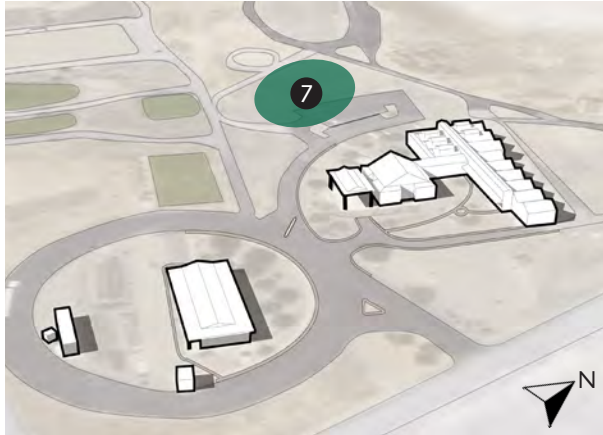
## Legend

- R Remodel Existing Building
- N New Building Construction
- O New Outdoor Construction

#	TYPE	CAMPUS/CENTER	BUILDING	PROJECT	ESTIMATED COST
1	R	Prescott	Building 1	On-Campus Early College Academy	Minor
		Verde Valley	Building G		
2	R	Prescott	Building 1	Renovation of the Old Learning Center Space	784K
3	N	Verde Valley	New	Student Housing	9.25M
4	N	Prescott Valley	New	Integration and Expansion of Health Sciences	14.52M
5	R	Verde Valley	N/A	Electric/Hybrid Vehicle Program Laboratory	Minor (V)
		CTEC	Building 70		507K (CT)
6	R	Prescott Valley	Building 40	Regional Economic Development Center Relocation	Minor
7	O	Verde Valley	N/A	Commercial Driver Training Program & Testing Site Expansion	608K
		Chino Valley	N/A		608K
8	N	Verde Valley	NEW	Fermentation Expansion with Craft Brewing and Distilling Program	8.04M
9	R	Verde Valley	Building M	Learning/Digital Commons	3.09M (V)
		Prescott	Building 19		12.15M (P)
10	R	Sedona	Building SC	Acoustical/Technology Upgrades for Meeting Rooms	146K
11	R	Prescott	Building 1&19	District ITS Workspace & Front Service Desk	430K
Total Estimated Construction Cost*					50.14M
Total Estimated Project Cost**					77.13M

\* Construction cost only, excludes costs for audio visual, furnishings, fixtures and equipment without fixed connections to building utilities, design fees, and permit fees. Pricing is based on April 2022 costs.

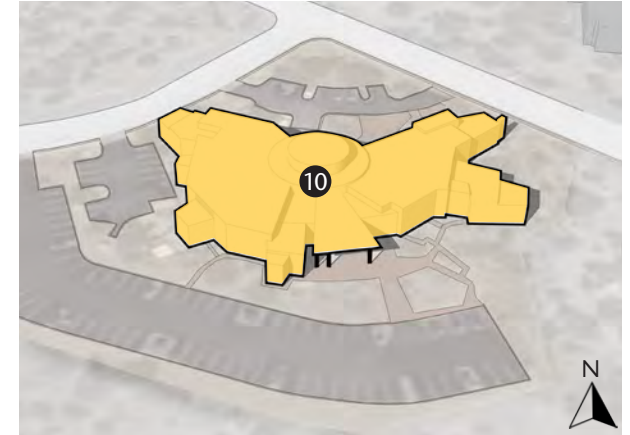
\*\*Construction cost typically comprise 65% of the total budget.



CHINO VALLEY



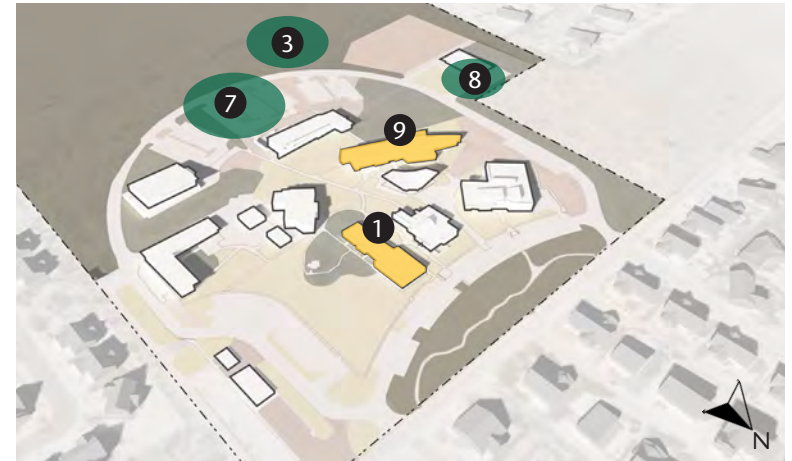
CTEC CENTER



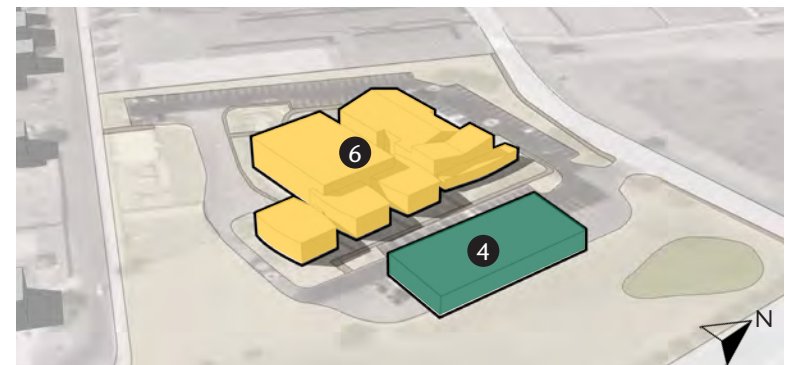
SEDONA CENTER



PRESCOTT CAMPUS



VERDE VALLEY CAMPUS



PRESCOTT VALLEY

PRESCOTT

Building 1

Building 1 on the Prescott Campus contains a welcome center, bookstore, student services desk, and offices on the 1st floor. The 2nd floor includes the Learning Center, design laboratories, server rooms and office space for ITS. This is one of the students’ favorite buildings on the Prescott Campus as students come here to study, hangout, and access student services.

On the 2nd floor, the Learning Center is proposed to move to Building 19 to be incorporated into the Learning Commons. Vacated space can be renovated for classrooms and offices, of which some could be used for the ECA program (Area 1). ITS staff are then proposed to move from Building 6 into adjacent instructional space (Area 2).



2nd Floor

- Renovation to Classrooms and Study Areas
- Proposed ITS Workspace

# Building 19

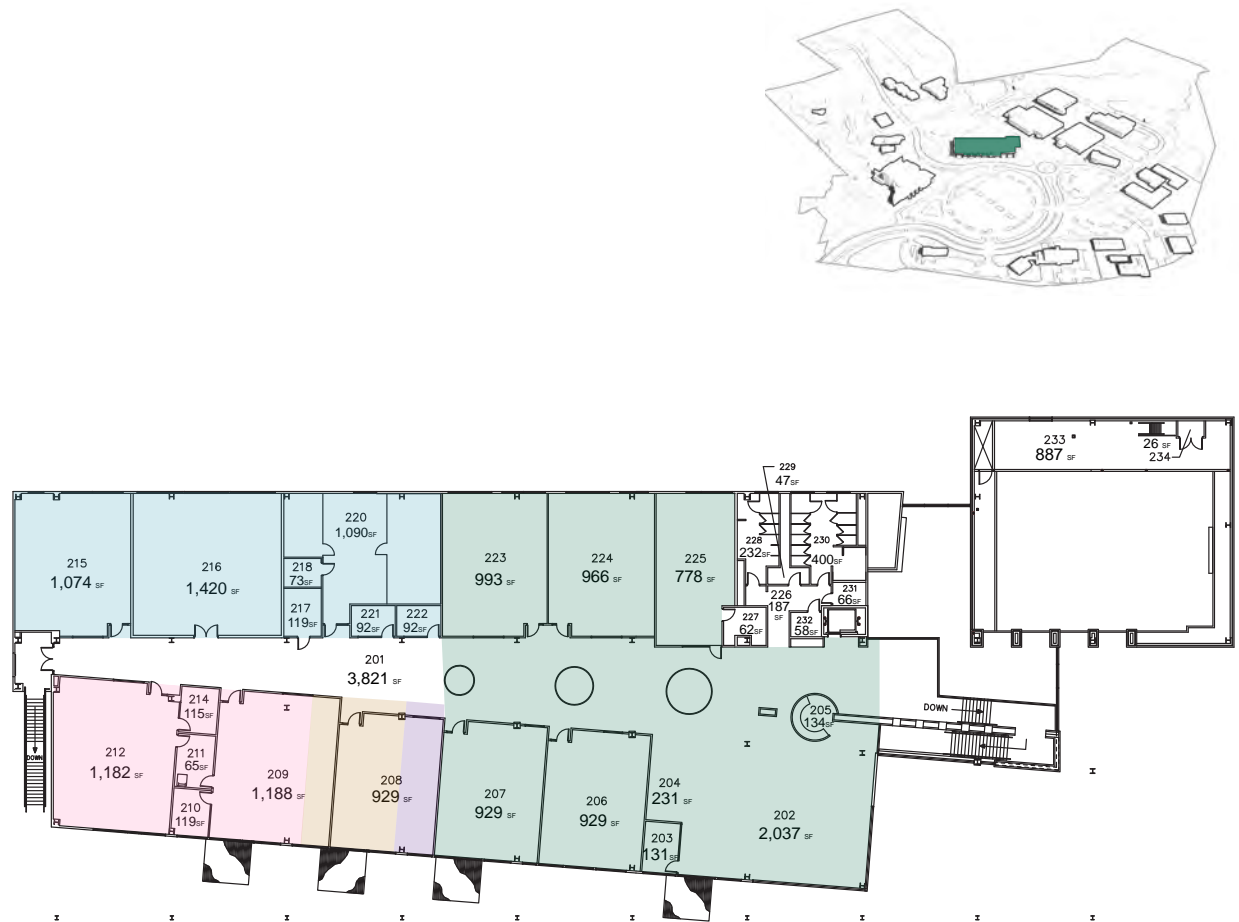
Proposed Learning/Digital Commons  
 Expansion of Community Meeting Room

43

Classrooms and laboratories on the 2nd floor are proposed to be re-purposed into a modern Learning Commons for tutoring and academic support with open collaboration areas, study rooms, and staff offices. Adjacencies may include a digital media studio, TELS staff offices, and a technology helpdesk, managed by ITS. Decisions regarding the final location of the Computer Networking Technology program and eSports play area will be made during the programming phase.



EXAMPLE OF MEDIA PRODUCTION STUDIO



2nd Floor

- Proposed Learning Commons
- Proposed Cyber Networking Program
- Proposed TELS Production Offices
- Proposed ITS Front Service Desk
- Proposed Media Production Studio

EXAMPLE OF PROPOSED DIGITAL LEARNING COMMONS SPACE

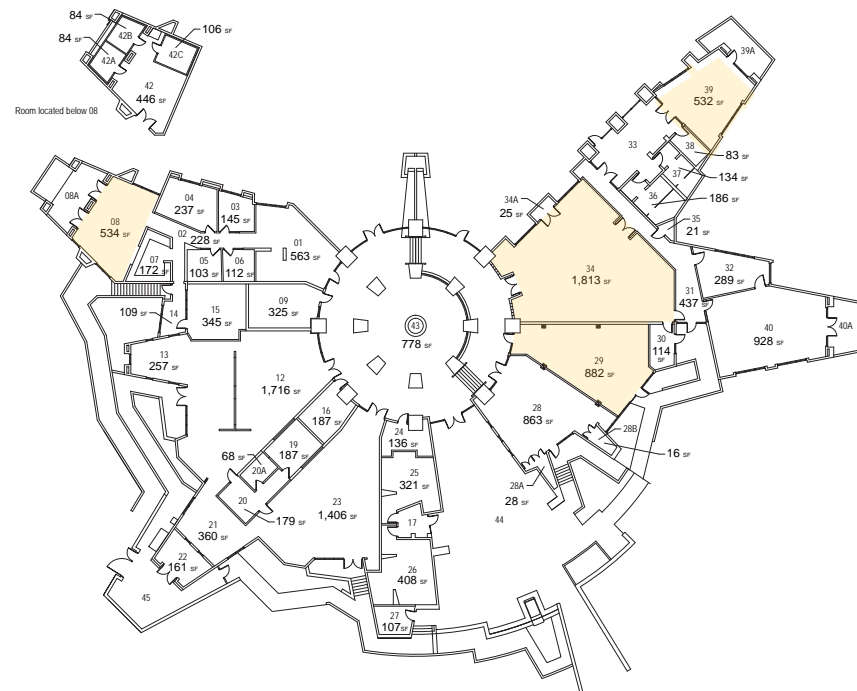


# Sedona Center

The Sedona Center provides credit and non-credit courses in multiple classrooms, including offerings from OLLI to adults over age 50. Some seminar rooms and classrooms at the Sedona Center have high ceilings and masonry walls, making hearing difficult for older students.

This project provides technology upgrades and furnishings for hybrid course flexibility (Livestream or HyFlex). Multiple rooms have been identified but other rooms are suitable for adaptation.

Four rooms comprising of 3,760 ASF at the Sedona Center have been identified for acoustical/sound and visual display improvements. During design, other rooms may be suitable for adaptation based on acoustical testing and utilization rates.



Proposed Classrooms for  
Acoustical/ Technology Upgrade



# Electric/Hybrid Vehicle Program Laboratory

In 2021, Arizona had 28,770 electric vehicles registered in the state. On a related note, hybrid sales have grown faster than electric-vehicle sales for two years, according to state-wide data. High gas prices, stricter fuel-efficiency standards, and an executive order calling for half of new cars to be electric or plug-in hybrids by 2030 are fueling continued growth.

The College's Automotive Technology program prepares students for a variety of careers in the automotive and machining industry, including auto repair and sales. This initiative provides funds to re-purpose space and acquire related technologies at CTEC to train students to maintain and repair the most common hybrid and electric vehicles. There is also an opportunity for a high school partnership near the Verde Valley Campus. The high school automotive laboratory could be used for electric and hybrid vehicle skills training.



CURRENT AUTOMOTIVE TECHNOLOGY PROGRAM AT CTEC

**VERDE VALLEY AND CHINO VALLEY**

# Commercial Driver Training Testing Site Expansion

There is high demand for truck drivers with commercial driver's licenses. The College's Chino Valley Center is home to the CDT program and the ADOT-authorized road-testing site. The Facilities Master Plan recommends expansion of the CDT program to the Verde Valley Campus to accommodate additional enrollments and enlarge the size of the testing area to accommodate multiple tractor/trailers.

This project includes site grading and construction of an ADOT approved asphalt lot and track for commercial driver license skills testing. Lot and test track dimensions should be confirmed during the design phase.

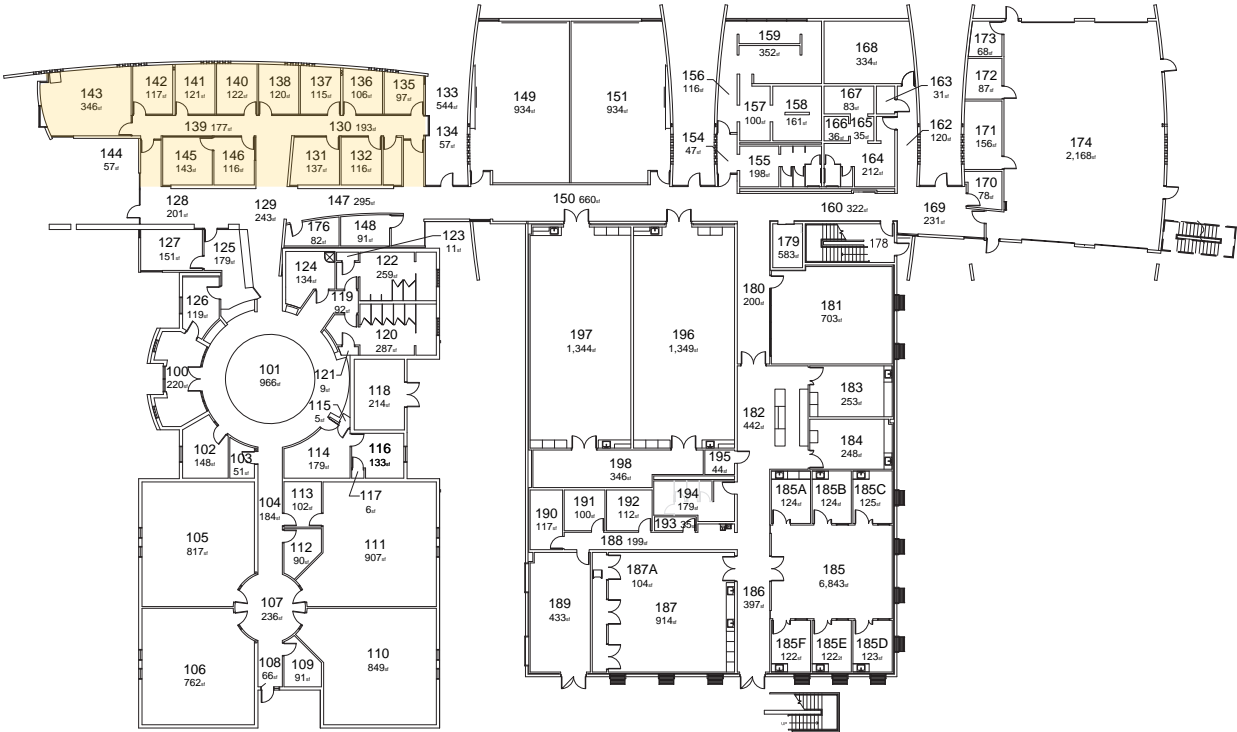


CURRENT COMMERCIAL DRIVER TRAINING PROGRAM AT CHINO VALLEY CENTER

## PRESCOTT VALLEY

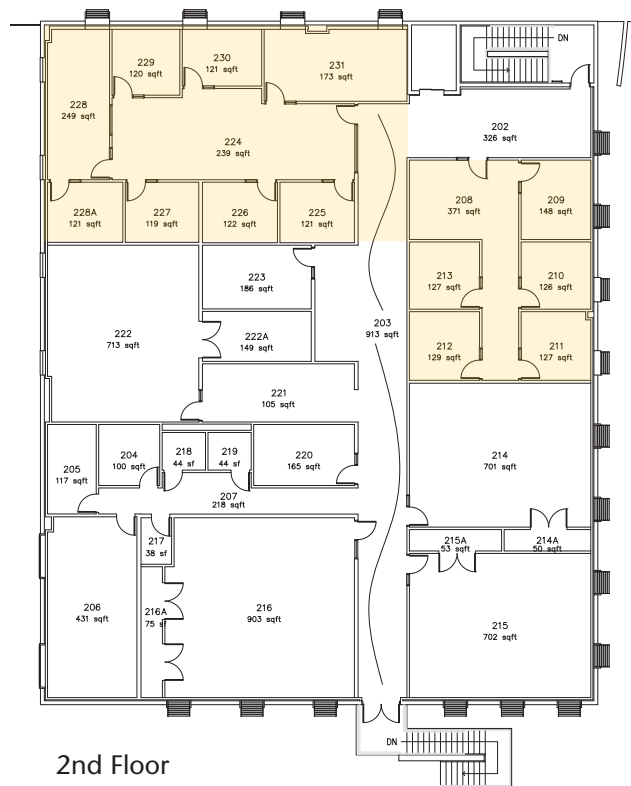
# Building 40

At the Prescott Valley Center, the Regional Economic Development Center (REDC) has offices located on the 2nd floor of Building 40. As the program is a catalyst for regional collaboration with local, state and federal economic development entities, visibility and accessibility are critical for its success. This proposed project relocates existing site administrators and faculty to 2nd floor offices, with REDC staff relocating to existing 1st floor offices. This project also includes building and internal wayfinding signage.



1st Floor

Proposed Space for REDC Relocation



CURRENT REDC MEETING SPACE IN BUILDING 40, PRESCOTT VALLEY

## PRESCOTT VALLEY

# Integration and Expansion of Health Sciences

Yavapai College offers one of the best Nursing programs in Arizona at both the Prescott and Verde Valley Campuses. Other health-related programs at the Prescott Campus include a Para-medicine AAS, and certificates in Para-medicine and EMT. Nursing laboratories and simulation areas at the Verde Valley Campus were recently renovated to accommodate best practices in Nursing Education. At the Prescott Campus, the classrooms, laboratories, and simulation spaces for Nursing and Para-medicine programs are not sufficient to accommodate best practices or program expansion. In addition, there is not adequate space for new Health programs in Building 2.

The separation of Nursing and Allied Health programs between the Prescott Campus and Prescott Valley Center has made it difficult to integrate inter-professional education (IPE) concepts into the curriculum and provide a robust interdisciplinary simulation experience on a day-to-day basis.

Following careful consideration, the College has decided to relocate Prescott Campus Nursing and Para-Medicine programs to the Prescott Valley Center. The Facilities Master Plan recommends



existing Allied Health programs remain in Building 40 while current Nursing/EMT programs relocate from the Prescott Campus into a new building adjacent to Building 40 (see site plan on Page 50). This new facility would also include space for several new health-related programs. Space is proposed to include demonstration classrooms, skills laboratories, an interdisciplinary simulation center, laundry and supply rooms, resource and study areas, and faculty and staff offices.

The Prescott Valley Center is presently home to nine Allied Health programs. These include the following:

- Medical Assistant - AAS
- Radiologic Technology - AAS
- Assisted Living Facility Caregiver Certificate
- Computed Tomography Certificate
- Magnetic Resonance Certificate
- Medical Assistant Certificate
- Medical Office Assistant Certificate
- Nursing Assistant Certificate
- Phlebotomy Technician Certificate

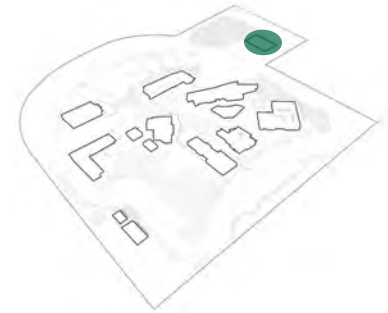


EXAMPLE OF A NURSING SIMULATION LABORATORY

## VERDE VALLEY

# Fermentation Expansion

The Southwest Wine Center is a successful program and needs additional space for program growth, including bottling and product storage. A Brewing Technology program has started, but lacks the proper equipment and partnerships to sustain growth. Closely aligned to brewing is the art of distillation. This initiative proposes a new building on campus that includes space for fermentation expansion, a craft brewery and distilling room, a tap and tasting room, and community space for hosting college and community events. A portion of this space could be used for art exhibits and guest lectures. As the campus is situated in an area with beautiful vistas, a lighted outdoor event space is also proposed for college and community gatherings.



SOUTHWEST WINE CENTER, VERDE VALLEY CAMPUS



## VERDE VALLEY

# Student Housing

The Verde Valley campus currently features unique destination programs to prepare students for high-demand, living wage jobs. As the College expands these unique programs at this location, there will continue to be an unmet demand for student housing. As a result, additional campus housing should be considered for these students – particularly those travelling great distances and/or in need of access to services and support infrastructure. The Facilities Master Plan recommends adding up to 60 beds, apartment style of student housing at the Verde Valley.



EXAMPLE OF STUDENT HOUSING AT NAU, FLAGSTAFF, AZ

## SECTION 4

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# Implementation

### ■ COST SUMMARY

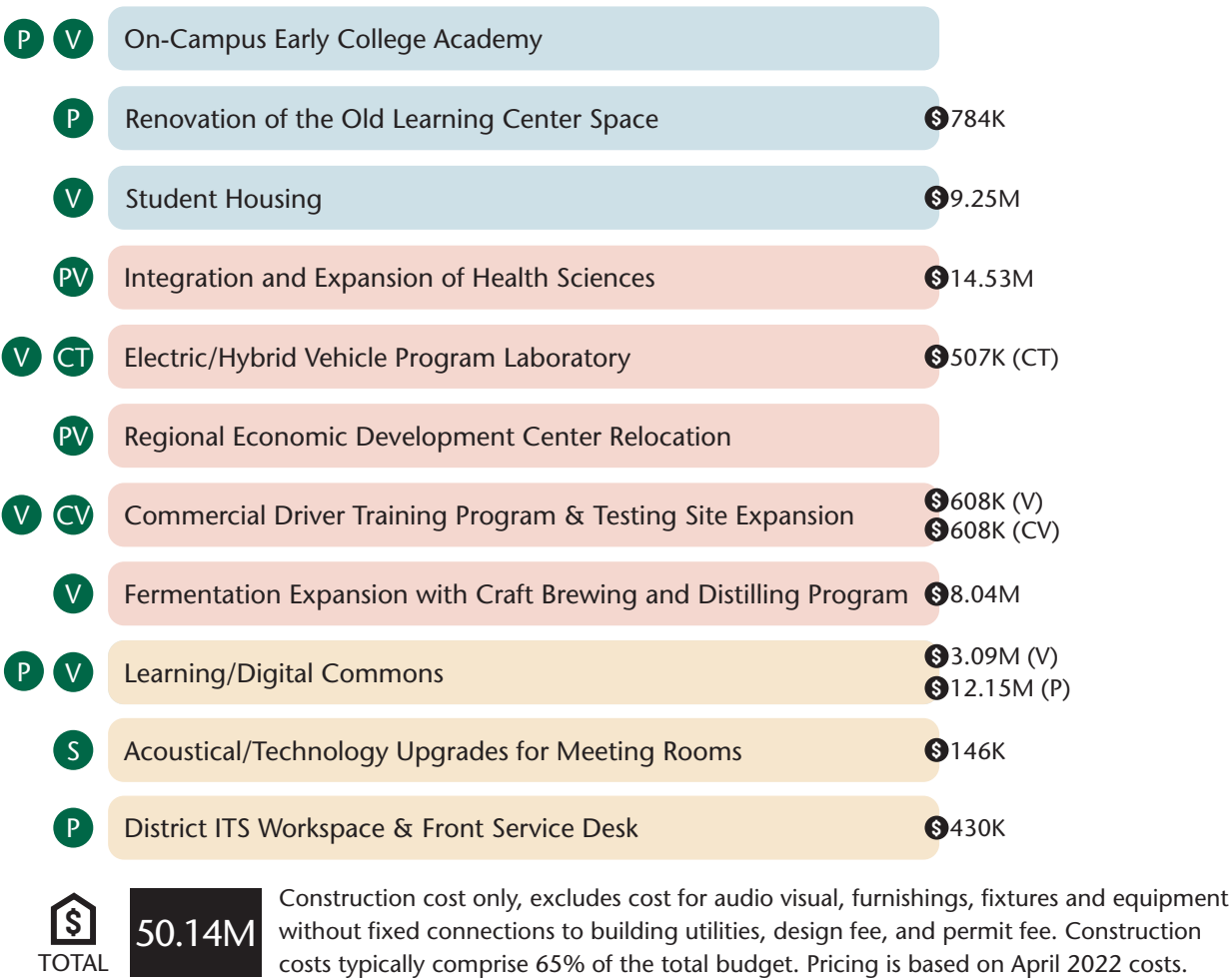




# Cost Summary

For each project, the proposed campus location(s) and the estimated construction costs are labeled. It is worth noting, that all construction costs are based upon April 2022 unit pricing, and do not include fees such as design fees, permit fees, and equipment fees.

## PRIORITY PROJECTS



Belonging

Living Wage

Adult Learners

Delivery

P Prescott Campus
 V Verde Valley Campus
 PV Prescott Valley

CT CTEC

CV Chino Valley

S Sedona

## LONG-TERM PROJECTS

<span>V</span> <span>CV</span>	(Owner's Project) Partnership Community Housing Development	
<span>P</span>	Athletics Indoor Space Expansion	\$1.70M
<span>P</span>	NCAA Soccer Field with Restrooms, Concessions and Bleachers	\$5.27M
<span>CV</span>	3D Construction Program	
<span>V</span>	Student Services Onboarding Improvements & Virtual Learning Testing Center Upgrades	\$1.06M
<span>V</span>	Campus Signage & Wayfinding Improvements	
<span>P</span> <span>V</span>	Single Stop Space for Wraparound Services & Drop-in Childcare	\$826K (P) \$327K (V)
<span>P</span>	Bookstore Relocation & Service Center	\$1.13M
<span>V</span>	Collaboration Areas & Student Study Spaces & Student Center	\$306K
<span>P</span>	Multicultural Center & C-Store	\$870K
<span>P</span>	District Central Warehouse	\$2.58M*
<span>ALL</span>	Classroom Technology for Hybrid Flexibility	\$338K (P) \$150K (V) \$150K (PV) \$187K (CT) \$60K (CV) \$67K (S)



TOTAL

12.49M

Construction cost only, excludes cost for audio visual, furnishings, fixtures and equipment without fixed connections to building utilities, design fee, and permit fee. Construction costs typically comprise 65% of the total budget. Pricing is based on April 2022 costs.



# Acknowledgments

---

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**SMITHGROUP**

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Design a  
Better Future