YEARLY PLANNING DISCUSSION TEMPLATE
General Questions

Program Name Automotive Technology **Academic Year 2024/25**

1. Has your program mission or primary function changed in the last year?

   No

2. Were there any noteworthy changes to the program over the past year? (e.g., new courses, degrees, certificates, articulation agreements)

   No new degrees or certificates but we have seen the beginning of the impact of the 2 new concurrent enrollment courses (AT 100 at Lompoc and SMJUSD CTE Center).

3. Is your two-year program map in place and were there any challenges maintaining the planned schedule?
   Yes, the map is in place and no, there were no changes. We are working on the Innovative Scheduling core topic this semester so we will be looking closely at it.

4. Were there any staffing changes?

   No. We are currently able to staff all sections that are offered, and we are in the process of filling the vacant Lab Assistant position.

5. What were your program successes in your area of focus last year?
   We have communicated our finding from the Curriculum and Teaching Design core topic last year, namely that the GPA in our courses offered through concurrent enrollment was a full point higher than on site courses and that the 303 course appears to be a critically needed step to insure success in many of the more advanced courses

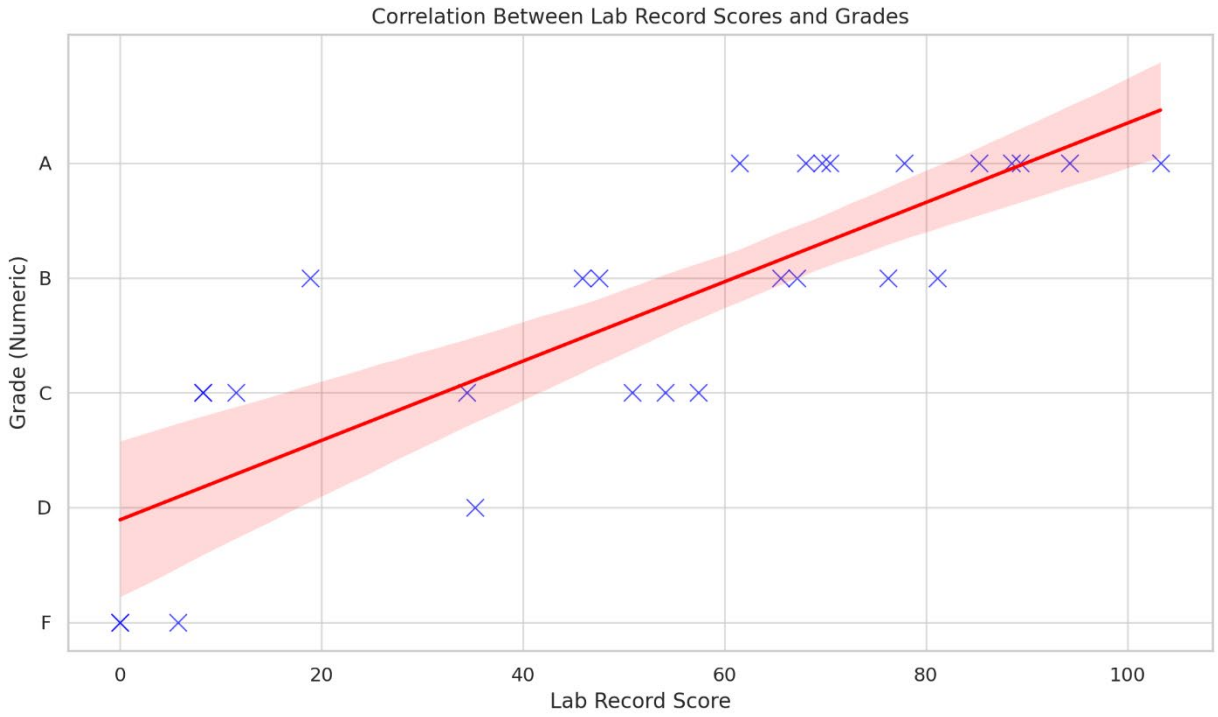
Learning Outcomes Assessment

a. Please summarize key results from this year's assessment.
   The Program Learning Outcome that was assessed this year was "1 - AT1- Demonstrate the ability to communicate effectively verbally and in writing with customers, co-workers and the employer." In both our AT 100 and AT 314 courses. Results in AT 100 were 50% were assessed at or above the standard and in AT 314 60% attained the desired outcome.

b. Please summarize your reflections, analysis, and interpretation of the learning outcome assessment and data.

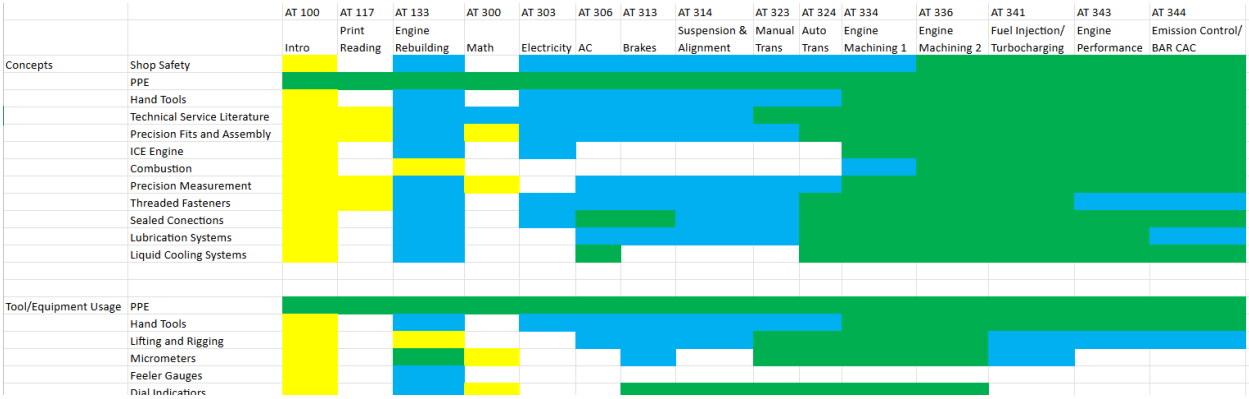
There are factors to consider such as the relatively new method of assessment (weekly written lab reports) and the growth of the students as they progress through the courses. The results illustrate the need to continue to work on this outcome in every course.

One interesting fact that emerged was that there was a strong correlation (.83) to the students' attainment in this area and their final grade in the course even though the written assignments were worth only 7% maximum towards the final grade. While there in no causation established, it is an important indicator.



Another initiative related to outcomes that we have undertaken is to map skills and tool mastery to courses. This allows students to quickly see where and when that skill or tool should be introduced, practiced and mastered and allow faculty to design effective curriculum.

This is still in process but should be finished this Fall.



	Introduction - Student is exposed to concept or tool and given appled instruction and opportunity to practice its use
	Practical Application - Student will be able to apply concept or tool in practical application
	Mastery - Student selects and uses the concept or tool in the correct manner without prompts

c. Please summarize recommendations and/or accolades that were made within the program/department.

Last year our student Gerardo Arroyo won the California SkillsUSA state contest and placed 2nd at the national contest in Atlanta. This was the highest place finish for any of our students in the last 20 years at least. This year our student Eric Ruiz has won the California State championship and will compete in June at the Nationals in Atlanta GA.

d. Please review and attach any *changes* to planning documentation, including PLO rubrics, associations, and cycles planning.

There were no changes to any of our planning documents this year.

Distance Education (DE) Modality Course Design Peer Review Update (Please attach documentation extracted from the *Rubric for Assessing Regular and Substantive Interaction in Distance Education Courses*)

We have no distance education courses.

CTE two-year review of labor market data and pre-requisite review

a. Does the program meet documented labor market demand?

Yes. According to the Lightcast Analyst (https://www.hancockcollege.edu/ie/documents/F23_Automotive_Service_Technicians_and_Mechanics.pdf) There are 75 Completions (2021) and 138 Openings (2021)

b. How does the program address needs that are not met by similar programs?

We are the only program at our level (post-secondary) in our area.

c. Does the employment, completion, and success data of students indicate program effectiveness and vitality? Please, explain.

There is limited current employment data available. The most current data comes from the California Employment Development Department from 2024

Area	Year	Period	Hourly Mean	Hourly by Percentile		
				25th	Median	75th
California	2024	1st Qtr.	$30.74	$22.51	$30.83	$37.18

Area	Estimated Year-Projected Year	Employment		Employment Change		Total Job Openings
		Estimated	Projected	Number	Percent	
California	2020 - 2030	66,800	69,400	2,600	3.9	69,050

https://labormarketinfo.edd.ca.gov/cgi/databrowsing/occExplorerQSDetails.asp?searchCriteria=Clerk&careerID=&menuChoice=occExplorer&geogArea=0601000000&soccode=493023&search=Explore+Occupation

The previously collected data (2022/23) indicated that 63% or students are employed 2 semesters after exit
https://www.calpassplus.org/LaunchBoard/Community-College-Pipeline.aspx
There was a 98% change in median earnings for students after exit:
https://www.calpassplus.org/LaunchBoard/SWP.aspx
31% of our students obtained a living wage after exit. This compares favorably to other majors (24% for Early Childhood or 30% for Culinary Arts for example)
https://www.calpassplus.org/LaunchBoard/SWP.aspx

d. Has the program met the Title 5 requirements to review course prerequisites, and advisories within the prescribed cycle of every 2 year for CTE programs and every 5 years for all others?

Yes – Please see attached REVIEW SUMMARY OF PREREQUISITES, COREQUISITES, AND ADVISORIES document

e. Have recommendations from the previous report been addressed?

Yes

Use the tables below to fill in **NEW** resources and planning initiatives that **do not apply directly to core topics.** ***This section is only used if there are new planning initiatives and resources requested.***

New Program Planning Initiative (Objective) – Yearly Planning Only	
Title (including number:	Hazardous material storage

Planning years:	*2025/26*

Description:

We need to replace the Hazardous Materials storage shed that we previously had in the old O-300 building. This would consist of an outdoor rated enclosed and lockable storage container for Four 55 gallon drums. This would secure our drums from unauthorized dumping and meet Fire and Haz Mat requirements.
https://www.globalindustrial.com/p/outdoor-drum-cabinet-220-gal-capacity-manual-close-fully-assembled?_br_psugg_q=Drum%20Storage
Cost is approximately $1600 plus shipping and tax.

What college plans are associated with this Objective? (Please select from the list below):

☐ **Ed Master Plan** ☐ **Student Equity Plan** ☐ **Guided Pathways** ☐ **AB 705/1705**

☐ **Technology Plan** **X Facilities Plan** ☐ **Strong Workforce** ☐ **Equal Employment Opp.**

☐ **Title V**

New Program Planning Initiative (Objective) – Yearly Planning Only	
Title (including number:	Electric Circuit Trainers
Planning years:	*2025/26*

Description:

The purpose of this planning initiative is to allow students to utilize late model trainers for automotive electronic and electrical circuits. These models allow students to understand solid state and digital circuits as opposed to our current models which analog only. These would be utilized in our AT 100 and AT 303 courses and occasionally in other courses.
Loren Bradbury - 20250515CO.ALL - Quote
The cost is $51540.22 including shipping and taxes.

What college plans are associated with this Objective? (Please select from the list below):

☐ **Ed Master Plan** ☒ **Student Equity Plan** ☐ **Guided Pathways** ☐ **AB 705/1705**

☐ **Technology Plan** ☐ **Facilities Plan** ☐ **Strong Workforce** ☐ **Equal Employment Opp.**

☐ **Title V**

New Program Planning Initiative (Objective) – Yearly Planning Only	
Title (including number:	ROTTLER MODEL H85A Rottler CNC Automatic Vertical Honing Machine
Planning years:	*2025/26*

Description:
This planning initiative is to replace our current Rottler honing machine that is more than 20 years old and has had several failures recently that have impeded instruction in our AT 133, 334 and 336 courses and bring the lab up to current industry standards. The cost is $95,551 less tax and shipping and will be a direct replacement for the current unit and should not require any work by maintenance. Rottler Manufacturing LLC. Quote 64356-0
What college plans are associated with this Objective? (Please select from the list below): ☐ **Ed Master Plan** ☒ **Student Equity Plan** ☐ **Guided Pathways** ☐ **AB 705/1705** ☐ **Technology Plan** ☐ **Facilities Plan** ☐ **Strong Workforce** ☐ **Equal Employment Opp.** ☐ **Title V**

Area of Focus Discussion Template
INNOVATIVE SCHEDULING

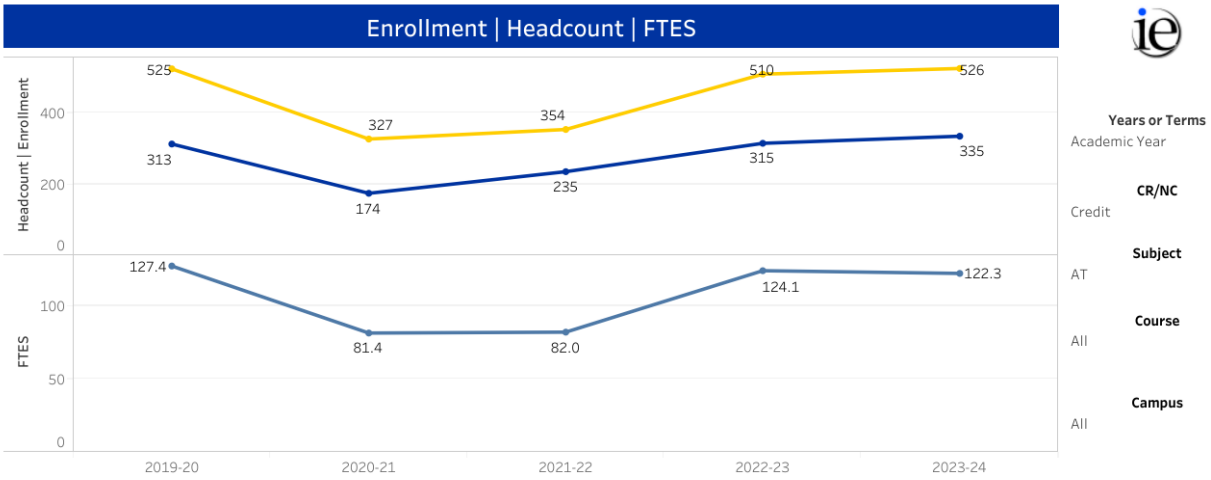
Innovative Scheduling embraces mapping, scheduling, and student outcomes. This focus includes a review of modalities, times, days, and sequence of courses. It supports areas of interest. It is based on student success, retention, and completion/graduation data. Sample activities include the following:

Possible topics:

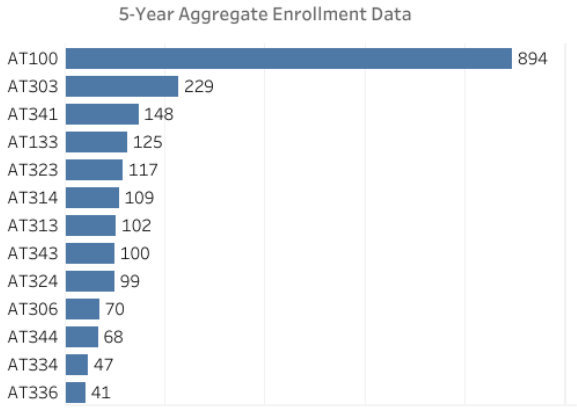
- Review scheduling matrices – program map alignment, successes, and challenges.
- Collaborate with guided pathways success teams to assess scheduling conflicts and bottlenecks within and across disciplines that impact student completion.
- Assess mix of teaching modalities – mornings-afternoons-evenings; weekends; face-to-face, hybrid, and distance learning. NOTE: Hybrid is the combined use of various teaching modalities.
- Address scheduling conflicts or dependencies across disciplines or general education areas.
- Student access – cultivate majors, support cohorts and interdisciplinary connections.
- Review units and time to course and program completion.

1. What data were analyzed and what were the main conclusions?

Enrollment, Headcount and FTES – Our program enrollments recovered fully last year to pre-pandemic levels and for AT 100 are higher than pre-pandemic levels. In looking at the issues around enrollment I analyzed the following data:

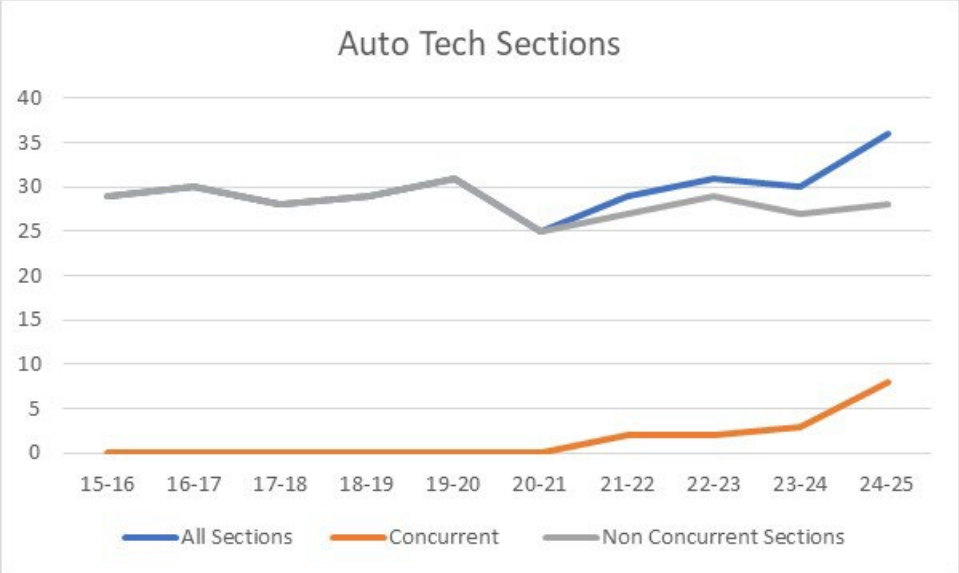


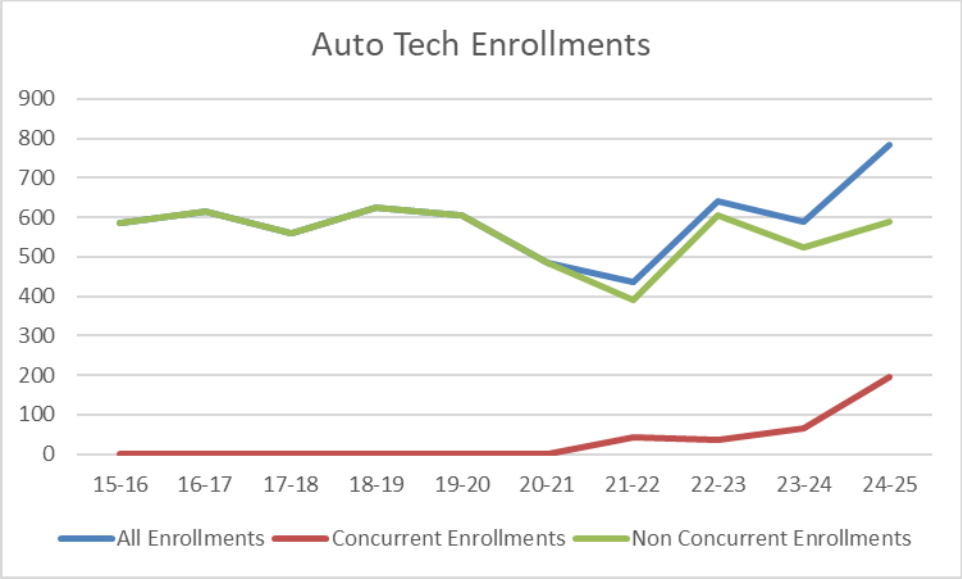
5-Year Enrollment by Course



	2019-20	2020-21	2021-22	2022-23	2023-24
AT100	193	77	176	210	238
AT303	46	48	26	59	50
AT341	22	40	18	47	21
AT133	49	15	15	22	24
AT323	26	20	16	24	31
AT314	27	20	14	24	24
AT313	25	18	13	22	24
AT343	25	21	11	20	23
AT324	28	9	14	26	22
AT306	21		13	19	17
AT344	22	21	16	9	
AT334	9	8	5	11	14
AT336	15	9	7		10

	2019-20			2020-21			2021-22			2022-23			2023-24		
	Enroll	Max Enroll	Fill%	Enroll	Max Enroll	Fill%	Enroll	Max Enroll	Fill%	Enroll	Max Enroll	Fill%	Enroll	Max Enroll	Fill%
AT133	49.0	48.0	102.08	15.0	24.0	62.5	15.0	15.0	100.0	22.0	24.0	91.67	24.0	24.0	100.0
AT300	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
AT303	46.0	48.0	95.83	48.0	72.0	66.67	26.0	30.0	86.67	59.0	72.0	81.94	50.0	48.0	104.17
AT306	21.0	24.0	87.5				13.0	15.0	86.67	19.0	24.0	79.17	17.0	24.0	70.83
AT313	25.0	24.0	104.17	18.0	24.0	75.0	13.0	15.0	86.67	22.0	24.0	91.67	24.0	24.0	100.0
AT314	27.0	24.0	112.5	20.0	24.0	83.33	14.0	15.0	93.33	24.0	24.0	100.0	24.0	24.0	100.0
AT323	26.0	24.0	108.33	20.0	24.0	83.33	16.0	15.0	106.67	24.0	24.0	100.0	31.0	24.0	129.17
AT324	28.0	24.0	116.67	9.0	24.0	37.5	14.0	15.0	93.33	26.0	24.0	108.33	22.0	24.0	91.67
AT334	9.0	24.0	37.5	8.0	24.0	33.33	5.0	15.0	33.33	11.0	24.0	45.83	14.0	24.0	58.33
AT336	15.0	24.0	62.5	9.0	24.0	37.5	7.0	15.0	46.67				10.0	24.0	41.67
AT341	22.0	24.0	91.67	40.0	48.0	83.33	18.0	15.0	120.0	47.0	48.0	97.92	21.0	24.0	87.5
AT343	25.0	24.0	104.17	21.0	24.0	87.5	11.0	15.0	73.33	20.0	24.0	83.33	23.0	24.0	95.83
AT344	22.0	24.0	91.67	21.0	24.0	87.5	16.0	15.0	106.67	9.0	24.0	37.5			
AT389	4.0	4.0	100.0	3.0	3.0	100.0	1.0	1.0	100.0	2.0	2.0	100.0	6.0	7.0	85.71
Total	**536.0**	**605.0**	**88.6**	**326.0**	**484.0**	**67.36**	**358.0**	**435.0**	**82.3**	**514.0**	**641.0**	**80.19**	**532.0**	**590.0**	**90.17**
	536.0	**605.0**	**88.6**	**326.0**	**484.0**	**67.36**	**358.0**	**435.0**	**82.3**	**514.0**	**641.0**	**80.19**	**532.0**	**590.0**	**90.17**





For 23/24 our time to completion was less than the institutional average (2.8 years versus 3 years). We have seen a decline in awards (33 in 2022/23 versus 29 in 2023/24).

All data indicates a very healthy demand for our course and currently our students can enroll in our courses and stay on track with their education plans.

2. Based on the data analysis and looking through a lens of equity, what do you perceive as *challenges* with student success or access in your area of focus?

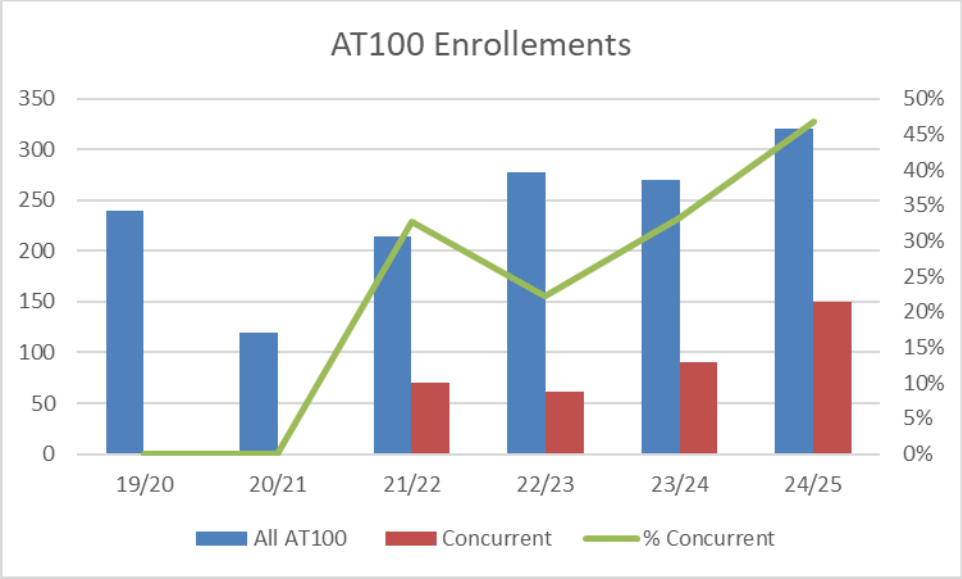
We have noticed an emerging problem that has the potential to grow into a crisis very soon if action is not taken.

This semester we noticed that nearly all of our advanced sections were full prior to the end of priority enrollment, and many had wait lists very early. After investigating the issue these are our conclusions:

AT 100 and Auto Tech enrollments

Our AT 100 course is designed to expose students to the basics of auto repair and working in a shop environment and successful completion has been shown to be critical to student success in subsequent Auto Tech courses. Beginning in 2021 we began offering AT 100 concurrently at San Ynez High School and in 2022 at Lompoc and last year at the SMJUSD CTE Center. In addition, moved out of O-300 building and were forced to reduce our class sizes for most of our on-site AT 100 courses from 24 to 15 due to the size of the available lab space.

As a result, next year we will probably see most of our AT 100 students come from the concurrent enrollment offerings.



These students will have priority registration for the advanced courses that require AT 100 as a prerequisite (all except 2 courses). This means that this large cohort of continuing AT 100 students could fill the seats in the advanced courses.

Prior to the increase due to concurrent enrollment were better balanced with 144 seats and 116 incoming students (average AT 100 enrollment past 5 years *65% retention rate). With the increase due to concurrent enrollment, we are enrolling about 310 students per year in the AT 100. The total capacity of the advanced courses is 144 students per semester (6 courses x 24 students with each student taking an average of 2 courses per semester). So about 202 AT 100 students can be expected to continue into advanced Auto Tech courses leaving a deficit of 58 seats per semester to accommodate the increase in continuing AT 100 students. This is roughly 3 more advanced courses we need to offer to keep students on track. The addition of advanced course offerings as concurrent enrollment at the CTE center and Lompoc High School buys us one semester of relief but does not change the basic fact that demand for advanced courses has outstripped supply.

3. What are your plans for change or *innovation*?

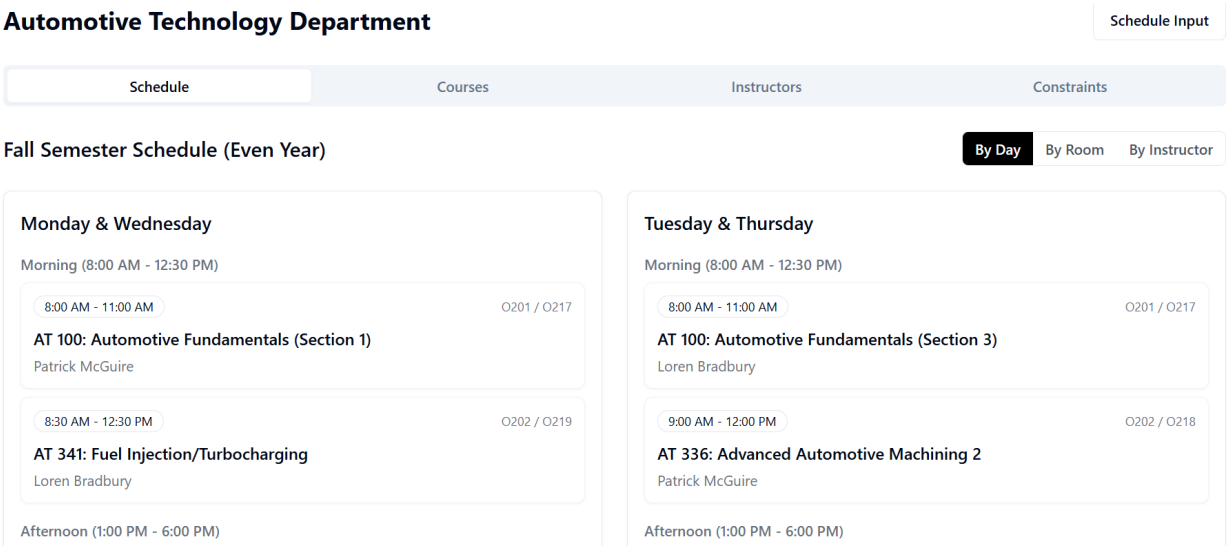
Given the complexity of programming courses and predicting demand, students will need us to do better at balancing offerings to demands and this leads to the conclusion that we need to build a predictive model for course demand and a program to build scheduling scenarios that accommodate all the constraints we are under. This will require to new processes and/or computer programs.

1. Demand Scheduling: This process or program would involve adding sections to our schedule that is based on our 2-year completion plan. The additions would be based on AT 100 enrollments from the prior semesters and would most likely have to be added to the schedule long after the catalog deadline (Fall is due at the beginning of Spring

semester and Spring is due at the beginning of Fall). An ideal feature would be to incorporate the Student Educational Plans of our students to help predict this demand.

2. Schedule Optimization Application: This software would incorporate the many constraints that have to be considered. These include room availability, instructor availability, the 2-year completion plan and compatibility of courses (AT 313 cannot be scheduled at the same time as any other course that needs the main lab)

I have cataloged the constraints and experimented with a simple application to help with schedule optimization, but the problem is far beyond my capabilities and available time.



I understand that the college has purchased the Ad Astra software, and I have inquired about being included in any pilot for it but have not been contacted about this. Assuming it is not able to solve either of our problems I have reached out to a professional and been given an approximate quote of $2500 to develop the Scheduling Optimization application.

4. How will you *measure* the results of your plans to determine if they are successful?

Students should be able to maintain their SEP.

Validation for Program Planning Process: If you have chosen to do the Validation this year, please explain your process and the findings.

Validation will not be done this year.

Based on the narratives for the prompts above, what are some program planning initiatives and resources needed for the upcoming years? Use the tables below to fill in **NEW** resources and planning initiatives. ***This section is only used if there are new planning initiatives and resources requested that pertain to the Core Topic only.***

New Program Planning Initiative (Objective) – Core Topic Only	
Title (including number:	Demand Based Scheduling Application
Planning years:	*2025/26*

Description:

This process or program would involve adding sections to our schedule that is based on our 2-year completion plan. The additions would be based on AT 100 enrollments from the prior semesters and would most likely have to be added to the schedule long after the catalog deadline (Fall is due at the beginning of Spring semester and Spring is due at the beginning of Fall). An ideal feature would be to incorporate the Student Educational Plans of our students to help predict this demand. Cost is estimated at $2500

What college plans are associated with this Objective? (Please select from the list below):

☒ **Ed Master Plan** ☒ **Student Equity Plan** ☐ **Guided Pathways** ☐ **AB 705**

☐ **Technology Plan** **Facilities Plan** ☐ **Strong Workforce** ☐ **Equal Employment Opp.**

☐ **Title V**

New Program Planning Initiative (Objective) – Core Topic Only	
Title (including number:	Schedule Optimization Application
Planning years:	*2025/26*

Description:

This software would incorporate the many constraints that have to be considered. These include room availability, instructor availability, the 2-year completion plan and compatibility of courses (AT 313 cannot be scheduled at the same time as any other course that needs the main lab).
Cost is estimated at $2500

What college plans are associated with this Objective? (Please select from the list below):

☒ **Ed Master Plan** ☒ **Student Equity Plan** ☐ **Guided Pathways** ☐ **AB 705/1705**

☐ **Technology Plan** ☐ **Facilities Plan** ☐ **Strong Workforce** ☐ **Equal Employment Opp.**

☐ **Title V**

Resource Request Excel template completed and sent along with completed program view core topic for signature.

Program Review Signature Page:

Patrick McGuire (May 27, 2025 08:42 PDT)

05/26/2025

Program Review Lead | Date

Thomas Lamica

Thomas Lamica (May 27, 2025 09:00 PDT)

05/27/2025

Program Dean | Date

07/21/2025

Vice President, Academic Affairs | Date

Automotive Technology 2025 REVIEW SUMMARY OF PREREQUISITES, COREQUISITES, AND ADVISORIES
(to be included in comprehensive program review document)

1. List all courses in discipline which included a review of any of the following: prerequisites corequisite, advisory, or limitation on enrollment.
2. Be sure content review results and actions are made in the course outline of record via CurriQunet course review proposal.

Course Prefix & No	**CURRENT REQUISITE COURSE AND REQUISITE TYPE** (Prerequisite/Coreq/Advisory/Limitation on Enrollment	**VALIDATION PROCESS (LEVEL OF SCRUTINY)** (Content Review, Content Review w/ Statistical data, UC/CSU Comparison, Student Survey – list all that apply)	**CONTENT REVIEW RESULTS** (i.e., current PCA is established, or should be dropped/modified or new PCA is established)	**ACTION TO BE TAKEN (CurriQunet Course Review Proposal)** (re-align/modify entrance skills, add new, etc.)	**ACTION TO BE TAKEN (CurriQunet Course Review Proposal)** (re-align/modify entrance skills, add new, etc.)
(example) ACCT 200	*Prerequisite: ACCT 100*	*Content Review*	*Should be dropped*	*Remove requiste from COR*	
AT 100	None	Content review, statistical analysis	No changes	None	
AT 133	AT 100	Content review, data analysis	No Changes	None	
AT 303	AT 100	Content review, data analysis	No changes	None	
AT 306	AT 100	Content review, data analysis	No changes	None	
AT 313	AT 100	Content review, data analysis	No changes	None	
AT 314	AT 100	Content review, data analysis	No changes	None	
AT 323	None	Content review, data analysis	No changes	None	
AT 324	AT 100	Content review, data analysis	No changes	None	
AT 334	AT 100, AT 133	Content review, data analysis	No changes	None	
AT 336	AT 100, AT 133, AT 334	Content review, data analysis	No changes	None	
AT 341	AT 100	Content review, data analysis	No changes	None	
AT 343	AT 100	Content review, data analysis	No changes	None	
AT 344	None	Content review, data analysis	No changes	None	

Submit completed form in comprehensive program review document.

Auto Tech 2425 Program Review_Innovative Scheduling Discussion

Final Audit Report 2025-07-21

Created:	2025-05-27
By:	Kara Mushegan (kara.mushegan@hancockcollege.edu)
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Transaction ID:	CBJCHBCAABAAalEAFnCx5dcfVa70dDvLEOCmUJE-Ut2L

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Agreement completed.

2025-07-21 - 10:49:13 PM GMT