



California Automotive Teachers

Fall 2018

Issue #51

CAT NEWS

www.calautoteachers.com

Newsletter Highlights

- ♦ New Diagnostic Network
- ♦ Evergreen's New Facility
- ♦ Finding the Data

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Upshift by Scott Brown

There's no question that the technology stack growth over the last decade or so has grown exponentially. It should be no surprise that the industry, as a whole, is not prepared to demonstrate and deliver the competencies needed to address the challenges moving into the pipeline. In my opinion, the same can be said for much of the products and services being delivered to the service marketplace.

As an owner of an independent automotive service facility, technician, and one who's been deeply engaged with industry at multiple levels for well over two decades, I recognize the current and pending challenges we all face in the marketplace. Recently, I left a company I had the fortunate pleasure of help build and foster for the past twenty-plus years in pursuit of focusing my efforts on what I believe to be the next dimension, Diagnostics. I believe that most agree that without the knowledge and skills education breeds, the service process becomes extremely flawed.

On May 27, 2018, I launched Diagnostic Network - diag.net which is a next-generation community platform designed to enable successful repair of modern vehicles through peer discussion, partner collaboration and education. Diagnostic Network is focusing initially on the diagnostician and the

(Continued on page 10)

**The California Automotive Teachers will meet at Rio Hondo College
for the Fall 2018 Conference on October 19 & 20.**

Hands-On Maintenance and Light Repair

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Instructor Materials	ISBN	List	School
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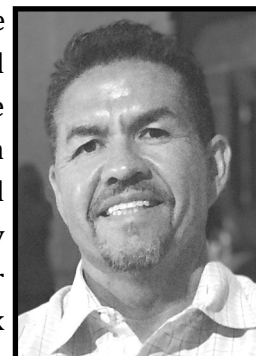


We Support

Education Foundation

President's Letter by Ruben Parra

Here we are in the middle of our Fall semester and gearing up for mid-terms. Seems like just a few days ago we were approaching the final stretch of the 2018 Spring semester and then enjoying a few restful days during summer vacation! If you are like me and most of the Educators across the state and country you were both feeling grateful anticipation and a hurried apprehension during the end of the spring semester! Anticipating a much needed and deserved break, and apprehensive because of the mountain of tasks yet to be completed by finals week and beyond. Now here we are again, negotiating our way through yet another school year. Nonetheless my experience has taught me that if I keep plucking away, one task at a time, starting with what's in front of me, all will be well.



I hope that everyone attending the Fall Conference in Pasadena, (Pasadena College) and the Spring Conference in Salinas (Hartnell College) had a great experience and enjoyed themselves. I heard many compliments and do not recall much or any negative comments from members attending the conference. Training sessions were very informative, well scheduled and on time. Tours were well conducted, of interest and well attended. My special thanks as well of those of the entire CAT board go out to Wendy Lucko and staff, and Pedro Escoto and staff for a tremendous job well done!

Earlier this year I attended, for the third time, Vision High Tech training in Overland Park, Kansas. This is a major training event that takes place the first week in March and is billed as one of the premier training events. Many top trainers from across the country converge on this training event. The event also holds a unique "Educator Think Tank" which provides exclusive training, Ideas, and methodologies specific to automotive education professionals. For those interested, registration is available in November every year.

Speaking of training, I was off to Williamsport, PA. this summer to attend NACAT. (North American Council of Automotive Teachers) representing CAT. This is always a great experience and productive meeting of educators from all over North America. I hope that if you had the opportunity to do some training this summer it is informative, helpful and got you ready to start off the new fall semester with positive energy.

Wishing everyone had great summer, and that their current semester is enjoyable as well! Looking forward to seeing everyone soon at Rio Hondo College in Whittier, Ca.

Ruben Parra, CAT President

"Our progress as a nation can be no swifter than our progress in education. The human mind is our fundamental resource."

John F. Kennedy

Executive Director's Report by George Hritz



It is hard to believe there are less than 100 days remaining in 2018. I hope this year has found you healthy and your program is thriving.

KUDOS

The Fall 2017 conference at Pasadena City College was a real winner. CAT's newly elected Vice President Wendy Lucko, Wayne Houlihan, Rowena Chan and the students in the PCC Automotive Program did everything possible to make the conference meaningful for all who attended. Pasadena's Automotive Program has an impressive teaching facility. I attended the MPA (Motorcar Parts of America) tour. MPA produces 8.8 million new and remanufactured components for domestic, import and heavy-duty use. The tour focused on innovation and quality control. It was very informative and enlightening. CAT's Friday tours have provided so many industry insights to our teachers over the years. Thanks to everyone who worked so hard to make this conference a success.

Spring 2018 at Hartnell College was another outstanding conference. Pedro Escoto, Mark DeHart, Valentin Rodriguez, Ambar Helgeson and their students worked very hard to make this conference a success. Their new facility is state of the art and provides a great learning environment. The tours were outstanding and the workshops were exceptional. Thanks to these folks for putting on such a wonderful conference,

Cuyamaca College has developed a new AS Degree program called Automotive Technology - ASCCA. Automotive Service Councils of California sponsors this degree program with unique on-the-job training opportunities to accepted students. This education program includes all Automotive Service Excellence (ASE) areas for Master Technician Certification.

Students will be required to further their studies in an ASCCA-sponsored repair facility as a paid, work experience technician. This program requires an application, a sponsor relationship with an ASCCA repair facility or affiliated member business of the Association. Successful students will gain over 1000 hours of documented and evaluated paid work experience related to the learning objectives of the program. They will be prepared to take the tests to earn Automotive Service Excellence master certifications, and California Smog Inspector and Repair Technician licenses.

This program has been in the works for more than two years. The facility, administration and ASCCA members who worked on this project are to be congratulated and I wish them much success.

FOR YOUR BENEFIT

The Automotive Service Councils of California (ASCCA) is offering free educator-level membership to any individual who is an "educator/teacher" member of CAT. I strongly encourage you to take advantage of this opportunity. When you register for the CAT conference there is a link with an option to the ASCCA application. You can complete the ASCCA application from the link on the registration confirmation page after you complete your conference registration.

There are many benefits to being a member of ASCCA. Two of these include a free subscription to "TeamTalk" an email-based group that exchanges knowledge and ideas on a wide range of industry topics. You will also have the opportunity to attend ASCCA Chapter Meetings. This provides you the opportunity to develop partnerships with local employers and industry. These partnerships can strengthen your program when employers offer

(Continued on page 6)



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internships or entry level job prospects for your students. The ASCCA Board encourages members to donate usable surplus equipment and vehicles to your programs.

Bureau Advisory Group (BAG) At their meeting on April 19, 2018, Gil DeLuna/Andrea Hightower of the BAR staff gave a presentation titled "Vehicle Retirement Survey" about vehicles retired through the Consumer Assistance Program (CAP).

A suggestion was made to determine if some of these vehicles could be used by public education automotive technology programs throughout the State. I have been working with Gil DeLuna and Denise Cunningham to create a process to put this practice into place.

I have been tasked to gather information to determine if it is feasible for BAR to create this program. The criteria to be established include:

- What year, make, and model vehicles are needed.
- Which schools will want to participate in the program?
- How can the BAR and the auto dismantler be held free of liability associated with the use of the vehicles?

It is important to note that the vehicles can be used for instructional purposes only and cannot be driven anywhere except from the shop-yard to the lab. The vehicles would be available for the fiscal year. The school would be responsible for transporting the vehicle from the dismantler and returning it to them by mid-June. A Memorandum of Understanding (MOU) between BAR and the school district and a Bill of Sale for a minimal amount may be required. Once I provide BAR with the requested information their legal department will determine if the program is feasible.

If you need vehicles for your program and are interested in working with BAR on this program please send me the following information;

Your name, school and district names, contact information for the district person responsible for signing a MOU, what year make and model vehicles are needed and any examples of liability agreements you may have used in the past. Email the information to george4cat@yahoo.com or give it to me at the next conference.

The California Automotive Wholesalers Association (CAWA) held their Education Forum on June 21 & 22, 2018 in Newport Beach, CA. There were two presentations that were of particular relevance to automotive educators. The links to them are below.

"Driving Tomorrow's Workforce of Technicians"

<https://drive.google.com/open?id=1RvApMceZLMsfe05nTNo6Fy1m7Frvfib0>

"The Effects of Emerging Technologies on Automotive Service"

<https://docs.google.com/presentation/d/10xpJ8GxBUDnMjaS9vBPSJFzFQpCIKtAQA6-qMbo409I/edit?ts=5b32629d#slide=id.p1>

IMPACT

During the Fall of 2017, the ASCCA created a new "EDUCATOR" position to the voting membership of their Board. This reflects the Board's desire to build stronger working relationships with California automotive programs. I was elected to that position for a term of one year beginning January 2018. I have recommended to

(Continued on page 7)

the Board that the position be held by a CAT member who is currently teaching. If you are interested in learning how you can be nominated for next year's term, contact me so I can nominate you to the election committee. george4cat@yahoo.com

The California Accountability Model and School Dashboard is California's new accountability and continuous improvement system that provides information about how local K - 12 educational agencies and schools are meeting the needs of California's diverse student population, based on a concise set of measures. The measures are the "College and Career Indicators" <https://www.cde.ca.gov/ta/ac/cm/cci.asp>.

The CDE is considering adding a new level called *Well Prepared*, which would include two more indicators for CTE. These two proposed indicators are:

- Your student earned an industry certificate.
- Your program curriculum requires workplace learning.

High school instructors with strong automotive programs need to keep this in mind for planning for your future curriculum development.

The Bureau of Automotive Repair (BAR) has been working on what is a valid authorization for vehicle repairs. After many workshops, reviews and discussions of all interested parties BAR has established new regulations allowing Repair Orders to be authorized by most means of communication as in signature, telephone call, email, text or tweet. Expect a new "Write it Right" manual soon.

The Legislature passed AB 3141, Low. Bureau of Automotive Repair: automotive repair dealers: maintenance and services. The Governor signed it into law as of January 1, 2019

The Bill requires that any business that repairs a vehicle for compensation must be registered as an Auto Repair Dealer (ARD) with the Department of Consumer Affairs and must abide by the regulations established by BAR. It eliminates the "Major and Minor Repairs" provisions of the original Auto Repair Act which allowed minor repairs to be performed by non-licensed repair shops. It establishes that a dealer does not have to provide a written estimate for "Preventative Maintenance Services" see definition below.

"Preventative maintenance services" means the following maintenance services: checking tire pressure and adding or relieving pressure, as necessary; rotating tires; changing transmission fluid, transmission filter, engine oil and filter, differential fluid, power steering fluid, and transfer case fluid; changing engine or cabin air filters, and external fuel filters; changing engine coolant; performing a fuel system induction service; replacing belts and windshield wiper blades; replacing light bulbs and restoring headlamps; adding oil or fuel treatments through the designated fill points; and topping off fluids; and all of the listed services include the removal, reinstallation, and replacement of any components necessary to perform each service, and the tapping of damaged threads without removal of any fluid pan. Again, look for a revised "Write it Right"

The Fall 2018 CAT Conference will be hosted by Rio Hondo College in Whittier CA on Oct 19 & 20, 2018. Mike C. Slavich (General Planning), John Frala (Tours), Darrell (Boyd) Chirnick (Information/Vendor Setup), Steve Tomory (Presenters/Breakout Sessions), Michael Dighera (Vendors) and Eric Olson/Marius Dornean (Parking/Dinner/Lunch/Other) are working to make the conference an effective meeting. The Friday tours and dinner look to be valuable and the breakout sessions are outstanding. I hope to see you there.

"You always find something the last place you look."

George Hritz

Pennzoil and Quaker State motor oils newly licensed by API to address LSPI concerns—BY: ROB MERWIN

Houston—The American Petroleum Institute (API) has followed through on requests from automakers for the development of a supplemental motor oil specification that would address low-speed pre-ignition (LSPI) problems in turbocharged direct injection gasoline engines. As of May 1, select Pennzoil and Quaker State motor oils are licensed by API as complying with the specifications of a new API SN PLUS category and made available to the market.

“This is an issue of importance to all automakers that market TGDI (turbo gasoline direct injection) engines,” said Richard Dixon, Pennzoil Technology manager. “Which engines are affected, however, is best answered by each individual OEM. LSPI typically results in piston damage, which can be catastrophic in nature. So much so, that engine replacement is necessary in many instances.”

As OEMs continue to strive for increased fuel economy and compliance with emission regulations, many have introduced downsized engines (with a displacement volume somewhere between one to two liters) that provide greater fuel economy under normal driving conditions while delivering higher power-density and torque. To achieve that, those downsized engines are often equipped with a turbocharger and direct fuel-injection technology, he said.

The high pressures from turbocharging, combined with direct fuel injection, into the combustion chamber in those smaller TGDI engines makes them susceptible to LSPI. While the mechanism of LSPI is not yet fully understood, research has shown that motor oil properties may be a contributing factor. OEMs can mitigate LSPI by adjusting the engine operating conditions, but in doing so they inhibit some high efficiency engine operating conditions.

Amid growing concerns about LSPI among OEMs, the urgent need for a supplemental service category became evident, Dixon said, and the API licensing process is in place to ensure an acceptable quality of engine oil is widely available to the market. “This illustrates the importance of lubricants as vital components for preventing serious consequences from poor performance.”

He explained that certain combinations of fuel and lubricant mixtures in TGDI engines can result in pre-ignition that may cause engine damage. LSPI arises from interactions between lubricants, fuels and engine design/operation. Engine oils can be formulated specifically using a combination of components that will prevent LSPI events.

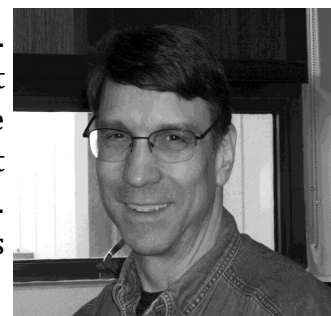
“Pennzoil and Quaker State participated in the Industry Consortium studying LSPI, and have also worked with individual OEMs developing LSPI knowledge and engine tests,” he said.

The API SN PLUS specification has added a single, fired-engine test — known as the Sequence IX engine test — for qualifying oils that measures a lubricant’s ability to prevent LSPI from occurring. Pennzoil and Quaker State have reformulated products, most significantly in the types and amounts of detergents used.

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WEBMASTER Report by Tom Broxholm

As your webmaster the website has been working well with very little to update. I try to upload pictures from the past conference as soon as possible and past conference photos can always be viewed. Cvent registration continues to make registration easier for everyone and the implementation of only accepting credit cards made a huge difference in our ability to keep accurate payment records. Thank you everyone who have had to make adjustments to these changes it is greatly appreciated.



As usual I wish to remind you that you can Split your Payment so you can pay your registration separate from your membership. We also offer Group Registration for colleges who will be paying for several members to attend. You can find instructions on our website at:

<http://www.calautoteachers.com/conferences.html>

As always any website or registration questions can be directed to me using the "Contact the webmaster" link on our homepage.

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(Continued from page 8 - New Motor Oils)

"The repair and service community can help by ensuring the appropriate lubricant is in use," Dixon said. "Secondly, repairers should stay vigilant in following any new developments or recommendations as they pertain to LSPI."


As a supplemental category, API SN PLUS was a way to quickly provide licensing for new oil introductions that offer protection against LSPI under API guidelines.

"The alternative would have been to wait for the next API category, known as API SP, to issue, though it is still more than a year from launching," he said.


API SP will contain a number of new tests, including a chain wear test and new engine wear test. "Introducing a single new requirement (LSPI) under a supplemental category allowed this issue to be addressed more quickly."

API SN PLUS products can be easily identified by the words SN PLUS in the API "donut," generally found on the back of a bottle.



industry partners who provide the tools, equipment, software, and training for the vehicle service industry, by creating a bi-directional channel between all parties.




Info ▾ Partners ▾



Driveability ▾


 

 **EGR flow P0401 & P0402**
Michael Del Toro, Owner/Technician at D&S Automotive LLC

6 3h

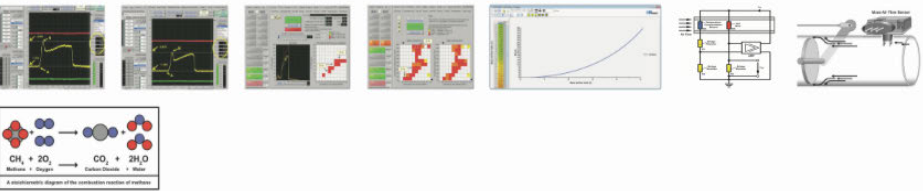
Good afternoon fellow automotive technicians, The guys at the shop passed this vehicle on to me after they've replaced a couple of items already and also are out of ideas in the meantime. I have gone over the EGR hose routing and everything looks good. I've noticed while test driving that when going up any steep hills the vehicle bogs down tremendously. The parts that have been replaced to try

Question Driveability 1997 Toyota RAV4 2.0L (P 3SFE) 5-spd (E250F) P0401 P0402 Stalls When Decelerating Intermittently


 **Mass Air Flow – The Science Behind It**
Bernie Thompson, Diagnostician at Automotive Test Solutions

14 6 2h

We are all living at the bottom of an ocean; an ocean made of air instead of salt water. The earth has a vast ocean of nitrogen and oxygen encompassing it. This ocean of air is being pulled toward the earth by gravity. Gravity is the force that is created between two objects with mass that are attracted to one another. This force is proportional to the product of their masses and inversely




Demonstration Education Driveability Maf Sensor Volumetric Efficiency (V.E.) Speed-Density Stoichiometric

 **Pico education series**
Tanner Brandt, Instructor at Tanner's Auto Clinic, Trained by Techs, Carquest Technical Institute

7 2 11h

The Trained by Techs group will be introducing a series of videos on how to use the pico scope software. We will start with basic tests and move up to advanced testing. We will be posting the videos shortly. Please stay tuned.

Demonstration Driveability


 **Two Diagnostic Issues Resolved - 08 Grand Caravan**
Ray Yergeau, Diagnostician at Mobile technician

3 8 15h


The shop replaced head gaskets because of coolant leaks and then they could not test drive the vehicle because the throttle wouldn't open. APP1 ranged from .445v to 4.565v APP2 ranged from .205v to 2.27v TPS1 was at 4.9v and never moved TPS2 was at .002v and did not move The Throttle Body connector fell off when I pulled on it and I could not push the connector all the way in. I sprayed

Tech Tip Driveability 2008 Dodge Grand Caravan C/V 3.3L (H Flex) 4-spd (41TE)

P2111 Etc Unable To Close P0222 Tps 2 Circuit Low P0123 Tps/App High C2116 - Abs Pump Low Voltage Supply

 **Update process for 2013 and newer Subarus**
Louis Jeune, Diagnostician at Connie & Dick's Auto Service Center Inc.

8 1h



Vehicle communications products with a core focus in OEM diagnostics and reprogramming.

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Trending Topics

Driveability
Parts
Education
Electrical
Diagnostic Network

BROWSE TOPICS

(Continued on page 11)

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We strongly believe that through deeper industry collaboration, stakeholders can gain a deeper understanding of the wants and needs of the diagnostician, which will result in the delivery of the products, services, and training the market demands. Additionally, we hope to inspire others to take the ini-



tiative to push their diagnostic proficiency forward in order to better service the deep, technology-rich vehicles rolling into today's service departments. Within this new, modern community platform, we plan to deploy features needed to support knowledge expansion for today and tomorrow's technician operating in the automotive service, collision repair, medium and heavy-duty vehicle markets.

We all need to raise the bar several notches from where we stand today and in order to accomplish this, I believe that we need to break out of the mold of doing the same and begin a new era by disrupting the norm and make this an attractive and prosperous industry for the real talent of today and tomorrow.

I'd love to hear from you with how you'd like to help move the bar.

Regards,
Scott Brown
sbrown@diag.net

ASE Education Foundation News

As you might have heard, the NATEF and AYES organizations have merged into one: The ASE Education Foundation.

What does that mean to you? First off, nothing really has changed. The standards and processes to do an initial accreditation, compliance review, and renewals will remain the same. Accredited programs will now be known as ASE Accredited Training programs and we will be sending every accredited program a new sign!

For those programs involved with AYES, it will now be known as the ASE Education Foundation Student Career Development program. Again, no real change, just the name. And any accredited program is welcome to participate; secondary or post-secondary!

The name change helps us leverage the ASE logo which is much more familiar to our industry partners, parents and the educational community.

Our online accreditation and student career development portal and accounts are now open. You will be able to manage your accreditation status and information from start to finish including getting your ETL assignments. In addition, you will be able to manage your student rosters, employers, mentors and internship opportunities just like today, all in one place.

We urge you to visit www.ASEeducationfoundation.org and click on the Dashboard tab on the homepage. This will take you to a login page. Here you will enter your email address and program ID. Once we receive this, we will email you back a new password to enter the portal.

In other news, registration for the ASE Instructor Training Conference is now open. The conference is in Frisco, TX, July 22-25, 2019 and will have over 60 technical and professional development sessions. The required 20 hours of update training will be available. The conference fee is \$450 for accredited programs and \$550 for non-accredited programs. Visit <http://www.cvent.com/events/ase-instructor-training-conference/event-summary-9c1a3a5736ee4b7daf5aca9d2e55a7c0.aspx> to register!

Please feel free to reach us with any questions or comments. We look forward to working with all our instructors.

A Message from the Newsletter Editor!

We always need technical articles to share with our members.

If you have an article for the newsletter
(it is never too early) please email them to:

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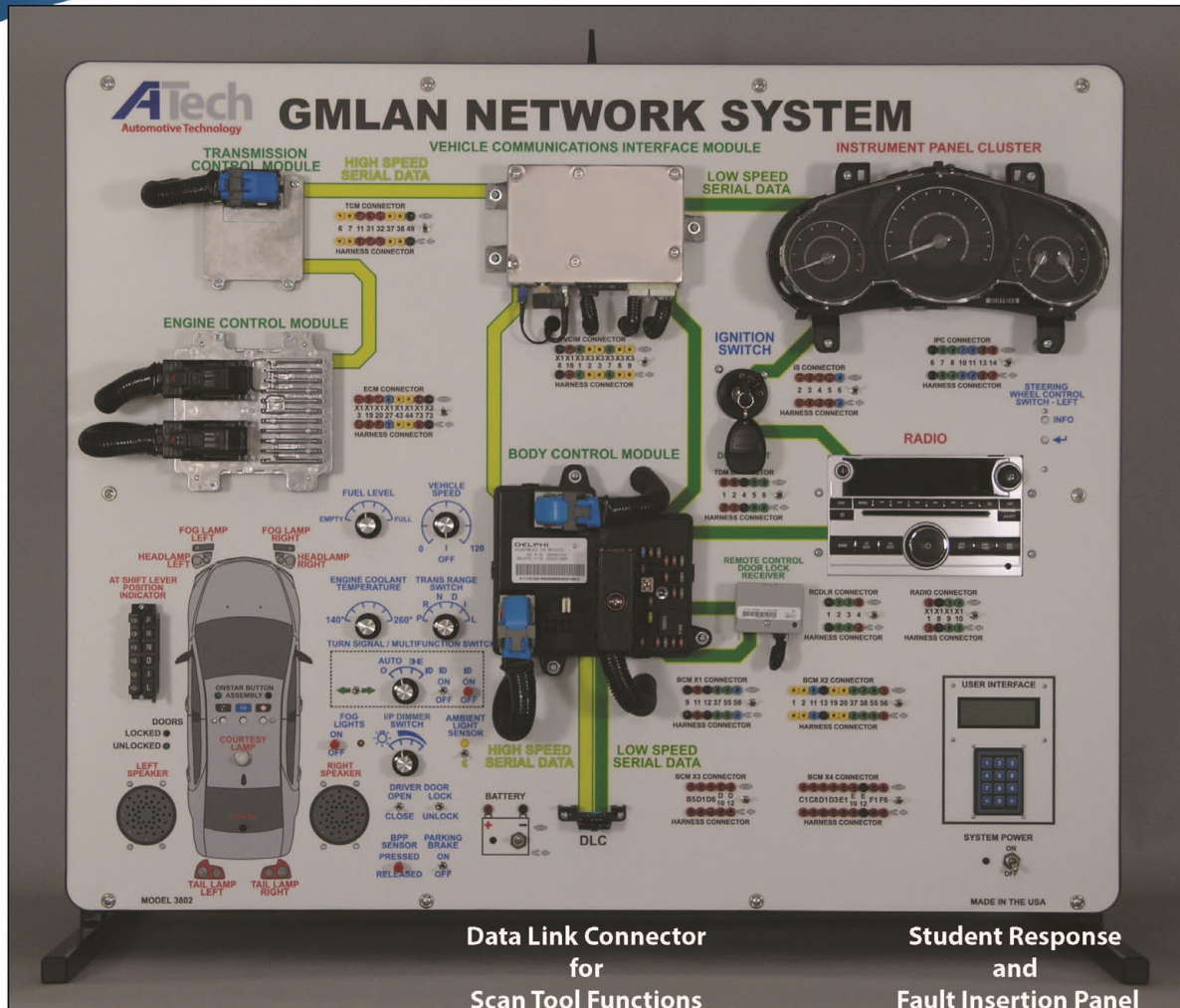


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eSCOPE ELITE4 - 4 Channel scope

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- ▶ **Dual Time Base:** This allows two different frequencies to be displayed on one screen with two different scope displays, simultaneously.
- ▶ **Pull Down Circuit:** A Controlled pulse that sinks power from vehicle circuit to ground. Control circuits like ignition coils, fuel injectors and solenoids.
- ▶ **TTL Output:** Sends a 0-5v square wave signal out of scope. Turn on devices such as ignition coil drivers, test vehicle's circuits, and test vehicle's circuits for loading.
- ▶ **Automatic Test Lead Connection Detection:** This unique feature allows you to know the scope lead has a good connection. "Red"= Bad connection. "Green"= Good connection. It's that easy!
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- Ability to perform actual service manual test procedures.



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AASSCA Free Educator Membership for Members of the Association of California Automotive Teachers

In its effort to strengthen relationships with industry educators, the Automotive Service Councils of California (ASCCA) is pleased to announce that they are offering free educator-level membership to any individual who is an **educator/teacher member** of California Automotive Teachers (CAT).

Led by dedicated and passionate volunteers, ASCCA's Mission Statement is to provide business resources and to advance the professionalism of the Automotive Repair *Industry*. ASCCA understands the important role that CAT members play in the automotive industry, teaching young men and women the knowledge and skills necessary to be successful in their career.

ASCCA educator members have access to all the benefits of being an ASCCA member, including:

- Subscription to TeamTalk—an email-based community of ASCCA's 500+ members who regularly exchange information and ideas on a wide range of topics
- Exclusive ASCCA member benefits from our corporate partners
- Members-only legislative updates from our lobbyist in Sacramento on legislation and regulations that directly impact the auto repair industry
- Invitation to quarterly Team Weekends to network with your peers and participate in committee meetings
- A front-row seat to the decisions ASCCA leaders will be making in the coming years in shaping a new automotive training degree program in California

ASCCA leaders also welcome and encourage any CAT educator member who joins ASCCA to help advance the industry by participating in any of ASCCA's committees, including: Government Affairs, Connected Cars, Membership, Revenue & Benefits, and Public Relations.

CAT educator members will also be eligible to renew their membership for free, as long as they maintain an active CAT educator/teacher membership. ASCCA reserves the right to discontinue the free membership with a 90-day notice.

Join your local chapter today and get involved!

EAST BAY (16) Meetings held second Tuesday, 6:30 p.m. Call Art Ratner: (510) 540-7093
FOOTHILL (5) Meetings held first Tuesday, 6:30 p.m. Call Joseph Appler: (626) 296-6961
FRESNO (25) Meetings held second Thursday, 7 p.m. Call Zarkis Martirosian: (559) 268-6359
INLAND EMPIRE (14) Meetings held third Tuesday, 7 p.m. Call Rory Balmer: (909) 337-0082
LONG BEACH (18) Meetings held third Tuesday, 7 p.m. Call Kristen Bunting: (562) 424-8726
MOUNT DIABLO (20) Meetings held third Thursday, 7 p.m. Call Steve Elstins (925) 676-8376
NORTH ORANGE COUNTY (48) Meetings held third Wednesday, 6:30 p.m. Call Denise Pina (714) 990-1500
PENINSULA (23) Meetings held last Tuesday of every other month, 7 p.m. Call Angi Roberts: (408) 266-9658
REDDING (99) Meetings held last Wednesday, 6:30 p.m. Call Ken Breshears (530) 222-2572
SACRAMENTO (34) Meeting times vary Call ASCCA Office (800) 810-4272
SAN DIEGO (24) Meetings held third Tuesday, times vary Call Mitch Mendenhall: (619) 334-6005
SAN FRANCISCO (21) Meetings held last Wednesday, 7:30 p.m. Call Paul Grech: (415) 286-6747
SAN JOAQUIN VALLEY (6) Meetings held second Thursday, 6:30 p.m. Call Paul La Berge (209) 466-5364
SAN JOSE (42) Meetings held second Wednesday, 7 p.m. Call Angi Roberts: (408) 266-9658
SANTA ROSA (28) Meetings held third Thursday of every other month Call Robert Toepp: (707) 546-2851
SOUTH BAY (1940) Meetings held quarterly, 6:30 p.m. Call Michelle Sprokkereef: (424) 206-1646
TULARE/VISALIA (26) Meetings held fourth Thursday, 6:30 p.m. Call John Camara: (559) 688-5721
WEST LOS ANGELES (12) Meeting times vary Call Jo Ann Fischer: (909) 939-0332

Evergreen CC is on a roll with a New Facility

EVC is building on previous momentum with a brand new \$13M 25,000 square foot Automotive Technology Building. Nestled in the hills of San Jose it contains three large labs, four classrooms, one lecture-lab classroom along with a dedicated two-bay Smog Referee lab. EVC also offers hybrid vehicle training. It also has a generous helping of new equipment and ATECH simulators. EVC has added FCA MOPAR and local Subaru programs to the existing Honda/Acura PACT Program. It also has an internship alliance with Del Grande Dealership Group (DGDG). In the works are new Collision Technical courses as well as thoughts of a mobile training van for dual enrollment courses at nearby high schools. New and innovative administration support is fueling additional internship programs and creative Dual Enrollment ventures. Guided Pathways assist students in successful and



timely automotive completions. Classes are packaged to serve morning, afternoon, and evening students.

With 5 full-time automotive factory trained instructors, dedicated automotive counselors, a friendly student atmosphere, and a supportive administration EVC is the place to go for automotive training.

Beside numerous Automotive Certificates and Degrees, EVC is Honda PACT certified, NATEF certified, and is a BAR Certified Smog Training Institution. www.evc.edu.



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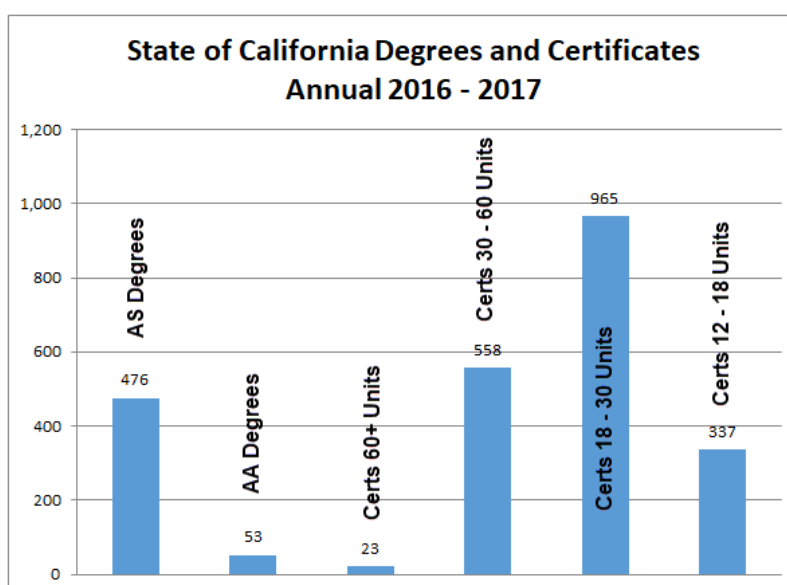
Where is the Data? By Tom Broxholm

Do you want hard data, the facts! Do you want to see how community college automotive education is doing as a whole all across California? How about just in your region or how about the other schools that are close to you. How do you compare?

I have recently discovered two websites by the State Chancellor of California Community Colleges that can give you that exact data. The first is the "Management Information System Data Mart" which can be found at: <http://datamart.cccco.edu/>. On this site use the Query link to find information like "Retention and Success Rate", "Program Awards" and "Student Success Scorecard Metrics". When you search for data you want to filter so you only get Automotive data. You will need to know the Automotive TOP code (Taxonomy of Programs). Automotive is 0948 The tricky part on this site is that Automotive is tucked away under "Engineering and Industrial Technology". If you have auto body your TOP code is 0949. All reports can be exported to Excel, CVS or Text format so you can sort and create graphs.

For example this graph shows 2016-2017 Chancellors office approved degrees and certificates.

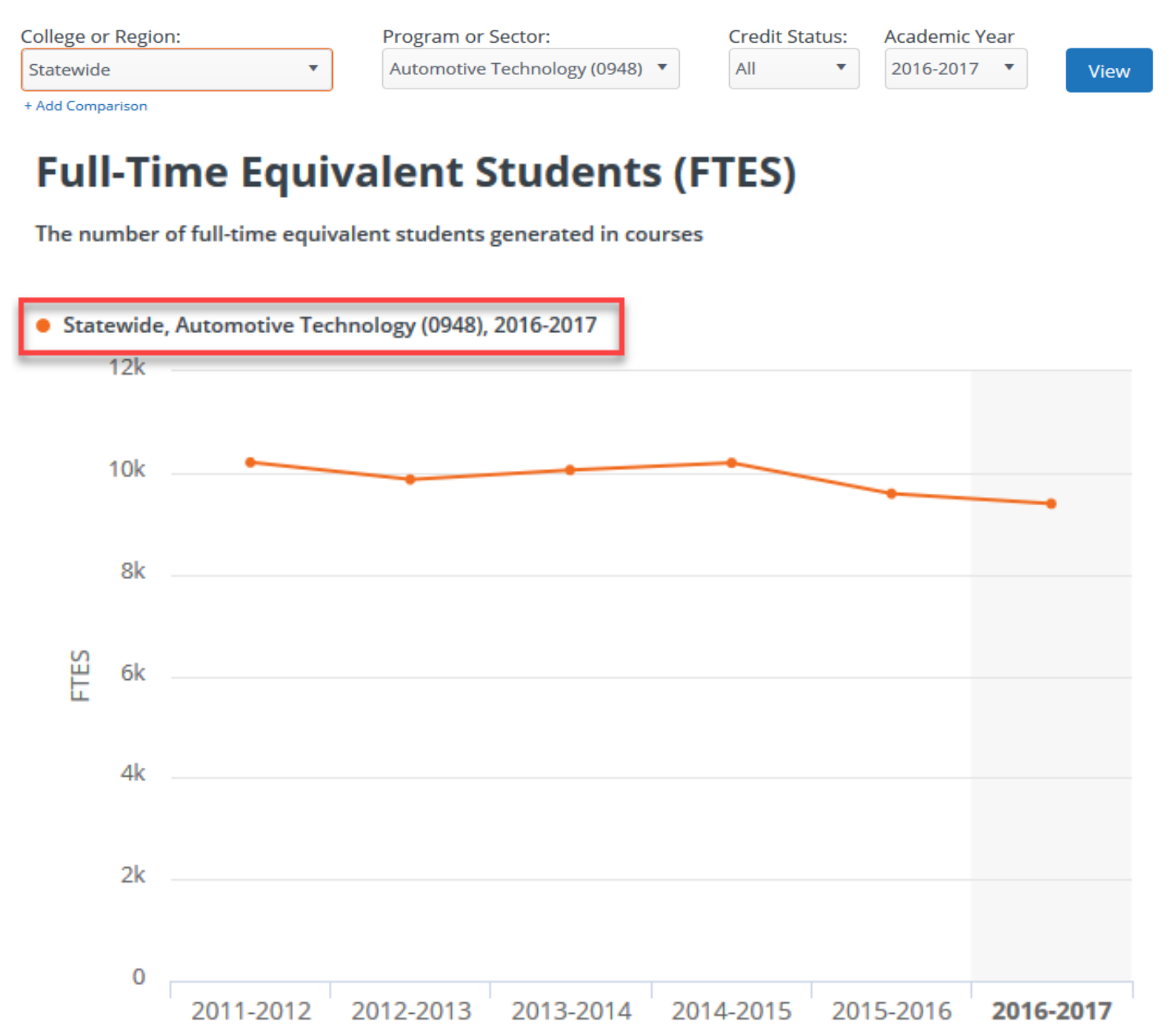
Program Awards Summary Report - Parameter Selection Area			
Select State-District-College Statewide Search	Select District-College 	Select Academic Year Annual 2016-2017	Select Award Type Chancellor's Office Approver
Select Program Type 0948	View Report		Program Awards Summary for Special Population/Group, please click here .



(Continued on page 21)

The second great resource is: Cal-PASSPlus located at: <https://www.calpassplus.org/> which is a data location for the Chancellors Strong Workforce Development and Doing What Matters initiative. You will need to request a login from the administrators which takes a few business days. Just click the “Log-In” link and fill out the “New Users” section and click the “Request Login” button. Once logged in you have access to the Community College Launch Board. This is where you can find all kinds of data. For example I’m able to see a trend in FTES statewide and in specific regions such as the bay area. I can even filter this data by school and compare schools in my local area.

I’m able to see a trend in FTES statewide and in specific regions such as the bay area. I can even filter this data by school and compare schools in my local area.



College or Region:

Bay Area

+ Add Comparison

Program or Sector:

Automotive Technology (0948)

Credit Status:

All

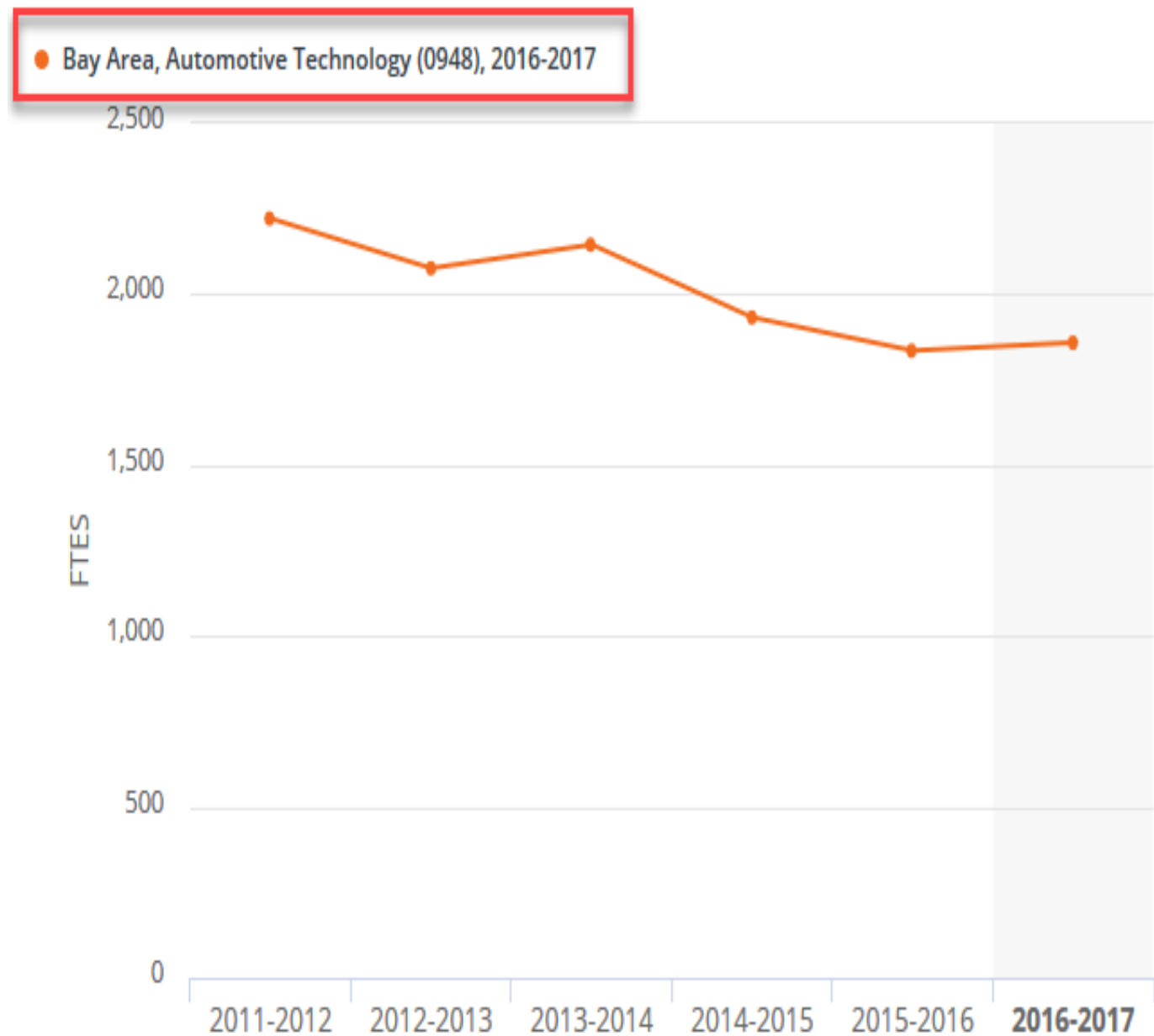
Academic Year

2016-2017

View

Full-Time Equivalent Students (FTES)

The number of full-time equivalent students generated in courses



College or Region:

Program or Sector:
Automotive Technology (0948) ▾

Credit Status:
All ▾

Academic Year
2016-2017 ▾

View

College or Region:

Program or Sector:
Automotive Technology (0948) ▾

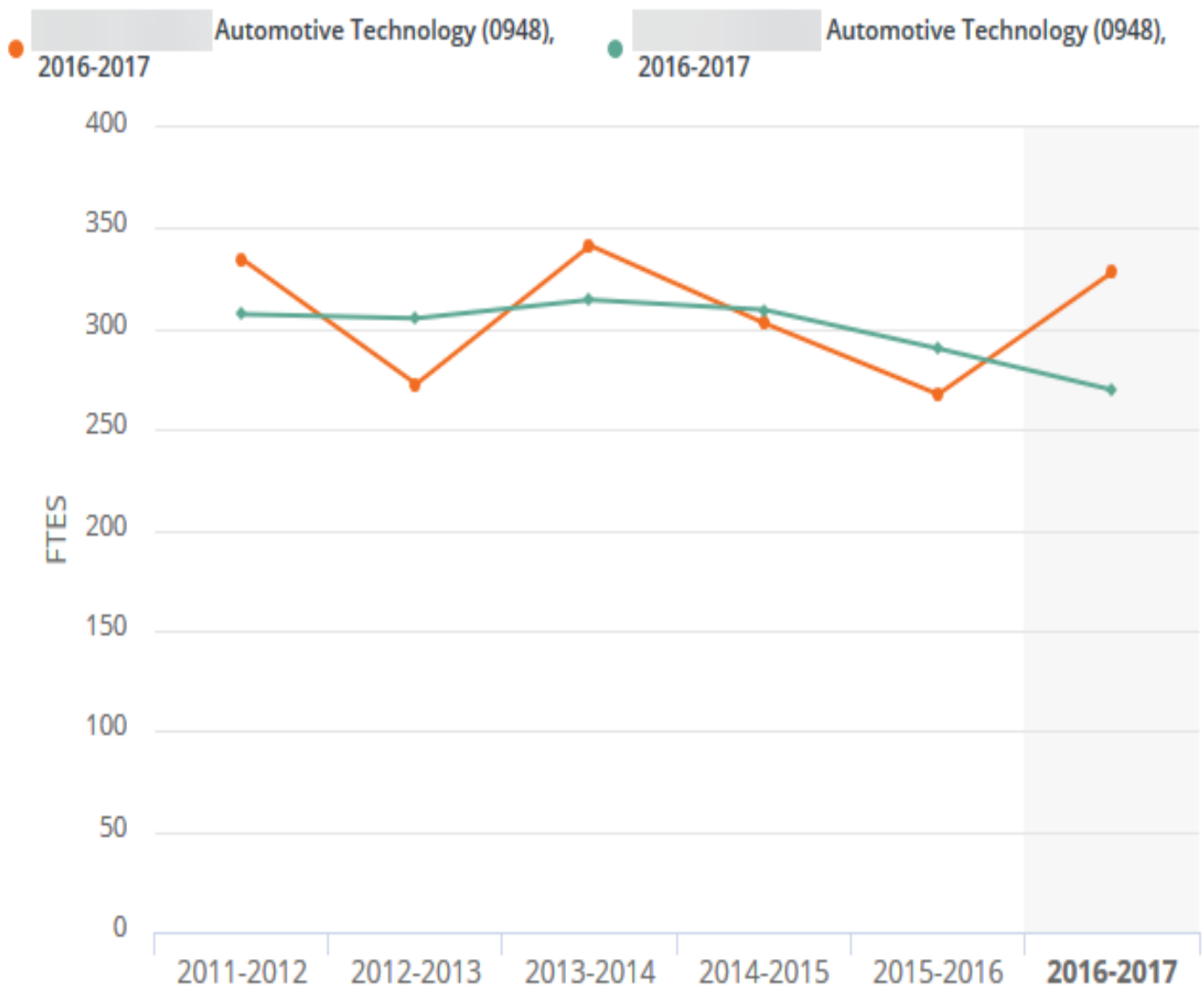
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Full-Time Equivalent Students (FTES)

The number of full-time equivalent students generated in courses



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The integrated touch screen display can be easily changed to explain the various driving modes and energy flow. The system uses actual voltage levels to ensure the student is confident and prepared to work on these vehicles safely in an actual shop.

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- Fault switches for troubleshooting
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For more information please visit our website <http://labcorpedu.com/automotive-hybrid/> or contact us directly: David Bjurlin David@labcorpedu.com or Larry A. Bjurlin Larry@labcorpedu.com

S.T.E.M. Basics Part 2 - Phil Jelinek

This is the second of many articles about S.T.E.M. to help students/learners understand the basic concepts of what everyone is talking about, in easy to understand terms. I have attended many S.T.E.M. symposiums, only to discover that after the students explain their projects, they are unable to separate which part of their project is either the Science part, Technology Part, Engineering part, or the Math part. You see, S.T.E.M. is an acronym that stands for **S**cience **T**echnology **E**ngineering and **M**athematics.

Science!

Many people believe they know what science is but few can put it into words. They believe that science has variables and is subject to opinions and/or preferences. Nothing could be farther from the truth. Science has to do with the Laws of the Universe that have **NO** exceptions!!! If there are any exceptions, it just is not a Science Law (rule).

There are a few examples I will use to highlight the point. Let's take the English Language, considered by many to be a difficult language to learn because there are so many exceptions to the rules. I was taught "The Exception makes the rule" in learning the English Language.



I before E, except after C, or when sounding like A, as in neighbor or weigh is a mnemonic rule of thumb for English spelling that gives both the rule and all the exceptions to that rule.

Let us use an analogy to explain what I mean. Consider the simple question: **Can we change Time???** Most people's first response would be to say no!! Then I ask them what we do each November and March???? We change time. In fact, in 1592 we lost 10 days. See the article below:

Imagine waking up tomorrow and finding out that the calendar date is now 10 days later than when you went to bed! Sound like a movie right? Truth is stranger than fiction. Europeans went to bed on Thursday, October 4, 1582 and awoke the next morning to learn that the date is now Friday, October 15, 1582. Where did 10 days go?!

We know that a year measures how long it takes the Earth to make one complete revolution around the Sun. In the 16th century, whether the Earth was at the center of the Solar System or it was the Sun, was still a controversial question. But what was known to even earlier cultures was that the pattern of stars you would see repeats every 365 days or so. We know that a year is roughly 365.25 days meaning that unless we add a leap day every 4th year (or so), our civilian calendar will slowly drift with respect to the stars.

(Continued on page 26)

The Julian calendar, introduced by Julius Caesar in 46 BC has a regular year of 365 days divided into 12 months. Although Greek astronomers had known that the solar year was a few minutes shorter than 365.25 days, the Julian calendar did not compensate for this difference. So the calendar year gained about three days every four centuries compared to observed equinox times and the seasons. But so what? The calculated date of Easter gradually moved out of alignment with the March equinox. By 1582, Easter was ten days out of alignment from where it supposedly had been in 325 during the Council of Nicaea. Because the celebration of Easter was tied to the spring equinox, the Roman Catholic Church considered the steady drift in the date of Easter too long to be undesirable. So the Gregorian calendar was introduced in 1582 and 10 days were removed from the calendar! Our civilian calendar is now again in synch with the stars.

Some people say yes!!! To them I ask, Can we change the physical time the Earth rotates one revolution and we call that a Day. We could change the 24 divisions of that day we call Hours into 10, 20 or 50 if we all could agree but we can't change the time of the actual 24 hour day. The correct answer would be another question, What do you mean by changing Time???



These are the laws I am talking about. Laws that have no exceptions, opinions or preferences!!! Some of these Laws include but are not limited to: The Laws of Fluid Dynamics, The Three Laws of Motion, The Four laws of Thermodynamics and the Laws of Gravity just to name a few.

So what is Science? **Science is a systematic and logical approach to discovering how things in the universe work.** It is derived from the Latin word "scientia," which translates to knowledge. Unlike the arts, science aims for measurable results through testing and analysis. **Science is based on fact, not opinion or preferences.**

According to Webster's New Collegiate Dictionary, the definition of science is "knowledge attained through study or practice," or "knowledge covering general truths of the operation of **General Laws**, esp. as obtained and tested through scientific method [and] concerned with the physical world."



So here is a simple sentence to help you understand what Science is: **Science deals with the Physical Laws of the Universe where there are no Exceptions, Opinions or Preferences.**

California Automotive Teachers & Facebook!



The Mission of the California Automotive Teachers is ***“To promote the best interests of automotive instruction throughout the State of California”***.

To help promote the organization’s Mission Statement, CAT now has a Facebook page. It can be found at: <https://www.facebook.com/calautoteachers>. The purpose of the Facebook page is to allow automotive instructors to share their program successes with their peers and industry partners in California, United States, and around the world. At the present time, many of our followers on Facebook are industry partners who play a role in our success. Please feel free to post innovative teaching techniques, program highlights, facility improvements, and anything else that will help promote the best interest of your program and automotive instruction.

If you experience any problems with our Facebook page please send a message to our page, or email rick@calautoteachers.com Help to make this page a success!

Looking for a new Newsletter Editor—Rick Escalambre

It has been 10 years and almost 20 issues since I took over the responsibility of Newsletter Editor. During this time, the newsletter has grown in size and quality. I would now like to begin training someone to takeover as Newsletter Editor for fall 2019. It has been a wonderful experience.

Everything is in place to train the next Newsletter Editor. The advertisers have been terrific in their support of CAT and the Board Members are always on-time with their articles. The most difficult part of the job is getting quality articles to fill the newsletter. I currently have the newsletter printed at Office Max at a very good price, quality, and in a timely manner. I use Publisher to format the newsletter, but other formats, like In-Design, could be used. Since most members receive their newsletter electronically, only 100 newsletters need to be mailed in an envelope.

If you are interested and attending the conference please let a Board Member know or contact me at rescalambr@aol.com.

Note: I would like apologize for not getting a spring 2018 issue of the newsletter published. Between some health issues, everything is fine now, and family it just didn’t happen.

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rick@calautoteachers.com

WEBMASTER: Tom Broxholm,
Skyline College,
tom@calautoteachers.com

The CAT Newsletter is always looking for technical articles and advertisements! The deadline for submitting articles and ads is March 25th for the spring issue and September 25th for the fall issue. Articles should be submitted in Word. It is preferred that ads be submitted in JPEG or EPS formats, PDF will work but sometimes the text is distorted once it is placed into the newsletter. The cost and sizes for advertisements can be found on our Website.

**For additional information about the California Automotive Teachers' organization,
future conferences, job announcements, training opportunities, and much more:**

visit our WEBSITE at

www.calautoteachers.com

CAT Conference
Spring 2019
Solano College
April 26 & 27

Conference Host Information:

Paul Hidy

Paul.Hidy@solano.edu

Mailing Address:

VALLEJO CENTER
545 Columbus Parkway
Vallejo, CA 94591