# Automotive Technology
# Canino School of Engineering Technology
# 2017Assessment Report

- Curriculum Coordinator: Brandon Baldwin
- Date of Presentation: January 17, 2018

SUNY CANTON

# What was assessed? Student learning outcomes list:

- *PSLO 1 – Communication Skills*

  – *Students are …*

- *PSLO 3 – Knowledge Management Skills*

  – *Students are …*

- *PSLO 4 - Technical Skills*

  – *Students are …*

- *ISLO # - name of ISLO*

  – *Description*

# Where were AUTO outcomes assessed?

- *PSLO 1 - Communication Skills, AUTO*
  - *101, 102, 111, 112, 141, 144, 213, 214, 220, 221, 241, and 282*

- *PSLO 3 - Knowledge Management Skills*
  - *101, 102, 122, 141, 144, 220, 230, 241, and 282*

- *PSLO 4 - Technical Skills (Safety Procedures)*
  - *101, 102, 104, 111, 122, 141, 144, 282.*

- *ISLO # - 2. Critical Thinking, 3. Professional Competency: for all Automotive courses.*

# How was the assessment accomplished?

- Student work assessed:
  - Quizzes
  - Midterm and final exams
  -- Lab Practicals
  -- Lab Performance
  -- Direct Student Artifact (Training Certificates)
- Measurement strategy:
  - Applicable rubrics used for reports
  - 70 % of questions answered correctly on quizzes, lab practicals, and midterm/final exams.
  - Observed degree of mastery for lab performance.
- Sample size:
  - All students who take the designated assessed courses.

# Assessment results: What have the data told us?

- *PSLO 1 - Communication Skills*

  *Insufficient data …*

- *PSLO 3 - Knowledge Management Skills*

  *All related courses in this SLO have …*

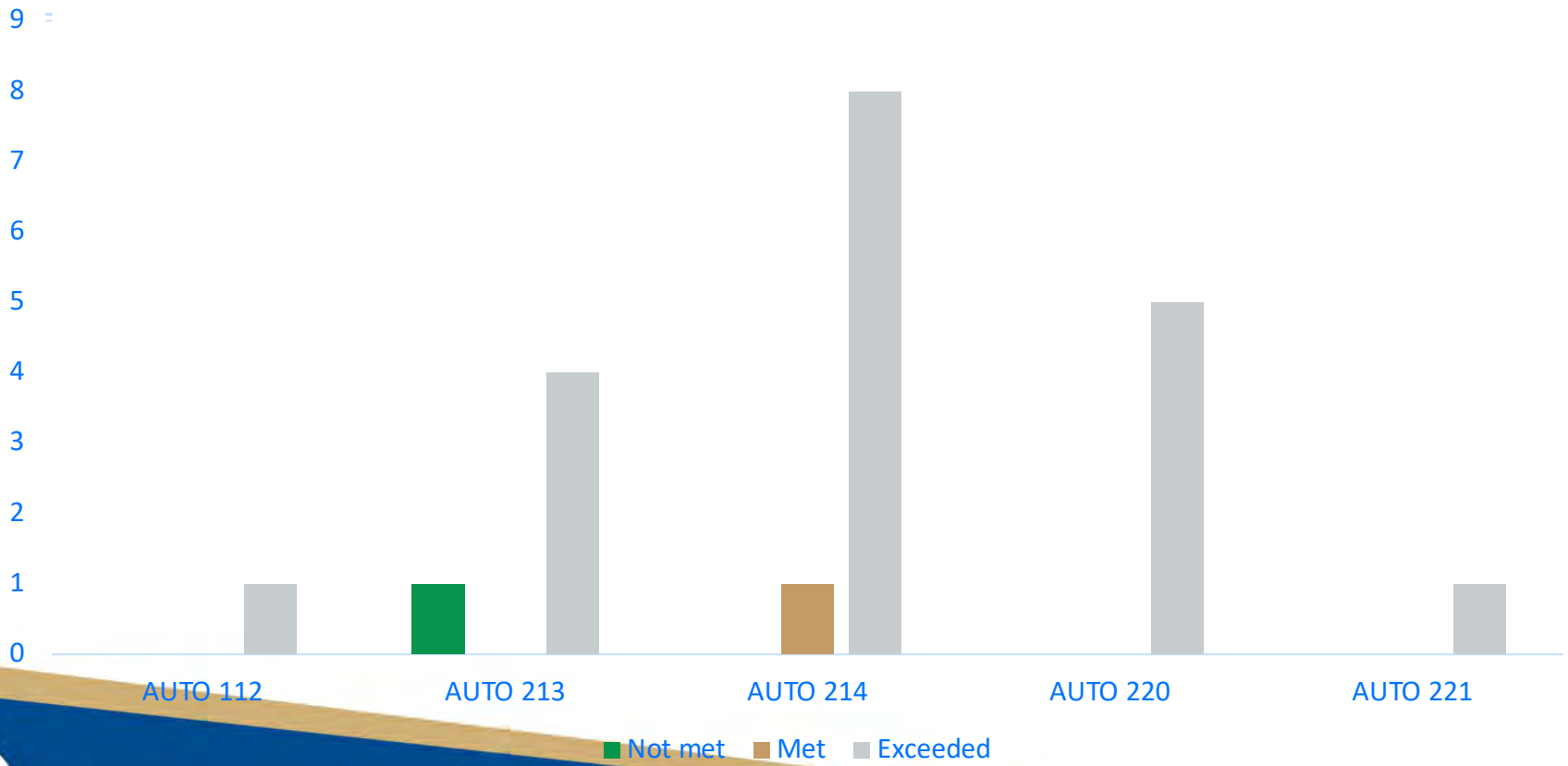- *PSLO 4 - Technical Skills*

  *31% of students in …*

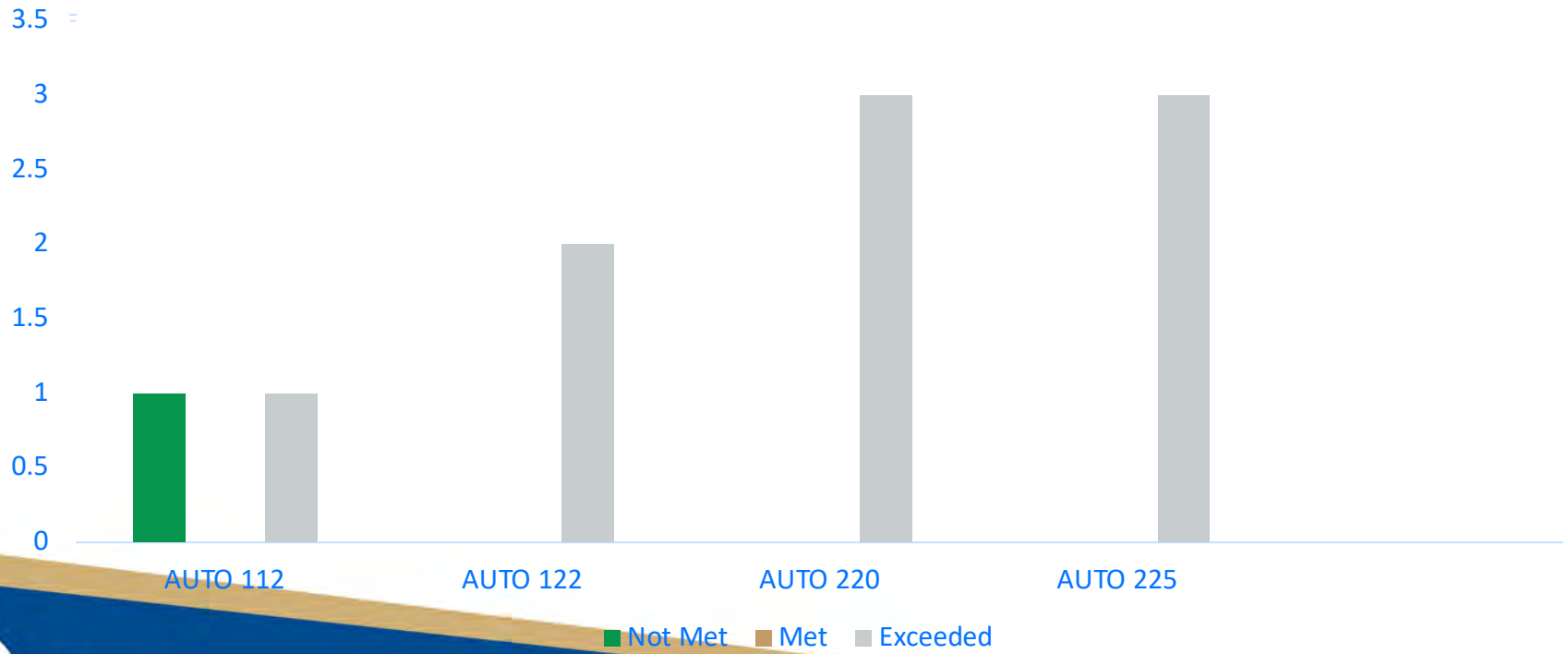- *ISLO # -  name of ISLO*

  *25 % of students in…*

# Actual Assessment Data

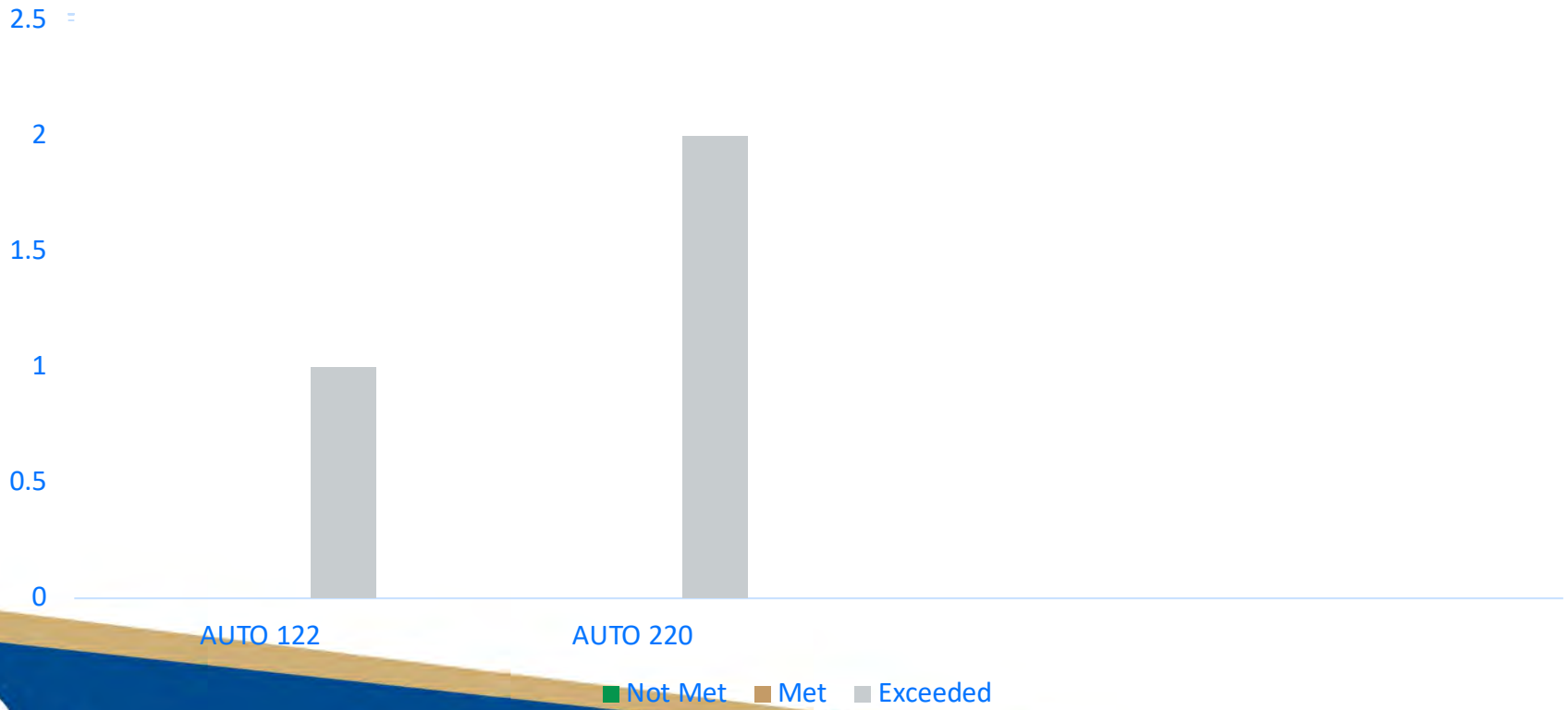ALO1: Diagnose and repair all automotive systems.

# Actual Assessment Data

ALO2: Demonstrate the ability to find all related system diagnostic/repair information within Auto service publications, electronic database, web based search engines, etc.

# Actual Assessment Data

ALO3: Utilize the 8 point service procedures to diagnose and solve problems.

# Actual Assessment Data

- ALO4: Demonstrate safety procedures while conducting automotive service activities.
  - Courses for measurement: AUTO 101, 102, 111, 141, 144, and 282.
    - These courses were not assessed in 2017 due to new faculty *in* 2017.

Data-driven decisions: How the program has or plans to "close the loop" based on these results.

– Continue to revise the course curriculum to better align with the program's objectives according to the SLO outcomes

– Continue to revise the related courses to better align with the student learning outcomes

– Advise students in the program to seek for additional instructional support when needed, e.g. tutoring.

# Data-driven decisions: How the department has or plans to "close the loop" based on these results.

- Given these findings, what will the department do differently?
  - Change teaching methods
    - **Lab Capacity:** Need to expand the capacity for all students to clearly view and hear lab demos when lab group size exceeds 6 students. Use lapel microphones and video monitors to improve audio and visual access to instruction.
    - **Tutoring and Review:** Need to create task videos to review specific methods, techniques, and diagnostic processes that are frequently difficult to grasp.
    - **Skill Building Practice Sessions:** Provide students an opportunity to practice and gain confidence when using tools, equipment and service information.

# Data-driven decisions: How the department has or plans to "close the loop" based on these results.

- Increase instructional support
  - **Practice Time:** Continue to give students time to practice on their personal car when the task relates to the automotive program i.e. Auto Club.
  - **Student Recruiting:** Request more help identifying motivated students for the program when recruiting students.

- Change assessment methods and/or measures
  - **Outcome Targets:** Automotive faculty will review, revise and evaluate learning outcome targets each semester.

# What resources are currently used to close the loop?

- Faculty and Instructional Support time:

    - Different auto courses are taught each semester. Resetting visual aids/props, moving equipment in and out of storage, and maintaining program NATEF standards all require substantial time and effort.

    - Student advising, tutoring, administrative duties and advising Auto Club all preformed by two faculty and one instructional support associate.

# What resources are being requested to close the loop?

- Potential resources that you might identify:
    - Adjust curriculum to align with NATEF standards in TaskStream.
    - Perhaps add course materials to BlackBoard and create online course.
    - Produce video instruction for students.
  - Increase program budget to maintain instructional equipment: ie: to obtain a 2012 or newer car in the lab with ESC, Mode 6, VVT, and CAN which all current cars have, but we don't: approximately $19,000
  - video streaming equipment for lab demonstrations.

# Attachments: 2017 SLO Findings

# SLO 1 - *Communication Skills*
## Assessment Findings Data

SLO 1 - Communicate clearly, concisely, and correctly in the written, spoken visual, and electronic form that fulfills the purpose and meets the needs of audiences.

| | Measures | Not Met | | Met | | Exceeded | | No Findings | |
|---|---|---|---|---|---|---|---|---|---|
| | N | N | % | N | % | N | % | N | % |
| All Courses | 78 | 5 | 6% | 14 | 18% | 41 | 53% | 18 | 23% |
| BSAD 340 | 2 | 0 | 0% | 0 | 0% | 1 | 50% | 1 | 50% |
| ENGL 101 | 69 | 5 | 7% | 9 | 13% | 38 | 55% | 17 | 25% |
| SOET 477 | 7 | 0 | 0% | 5 | 71% | 2 | 29% | 0 | 0% |

# SLO 3 - *Knowledge Management Skills*
## Assessment Findings Data

SLO 3 - Interpret, produce, and present work-related documents and information effectively and accurately.

|  | Measures | Not Met | | Met | | Exceeded | | No Findings | |
|---|---|---|---|---|---|---|---|---|---|
|  | N | N | % | N | % | N | % | N | % |
| All Courses | 28 | 0 | 0% | 13 | 46% | 5 | 18% | 10 | 36% |
| BSAD 340 | 2 | 0 | 0% | 0 | 0% | 1 | 50% | 1 | 50% |
| MATH 141 | 16 | 0 | 0% | 8 | 50% | 0 | 0% | 8 | 50% |
| SOET 377 | 3 | 0 | 0% | 0 | 0% | 2 | 67% | 1 | 33% |
| SOET 477 | 7 | 0 | 0% | 5 | 71% | 2 | 29% | 0 | 0% |

# SLO 4 - *Technical Skills*
## Assessment Findings Data

SLO 4 - Use a variety of technological tools appropriate & necessary for the performance of tasks.

| | Measures | Not Met | | Met | | Exceeded | |
|---|---|---|---|---|---|---|---|
| | N | N | % | N | % | N | % |
| All Courses | 20 | 4 | 20% | 9 | 45% | 7 | 35% |
| BSAD/SOET 361 | 13 | 4 | 31% | 4 | 31% | 5 | 38% |
| SOET 477 | 7 | 0 | 0% | 5 | 71% | 2 | 29% |