

# **BAKERSFIELD COLLEGE**

## **BACHELOR OF SCIENCE DEGREE IN INDUSTRIAL AUTOMATION UPDATE**



**Presented by:  
Liz Rozell, Vice President of Instruction**

# WHO ARE OUR STUDENTS?

Upper Division	Lower Division
37 students	27 students
83% male 17% female	93% male 7% female
65% Hispanic	65% Hispanic
7 graduating May 11, 2018	



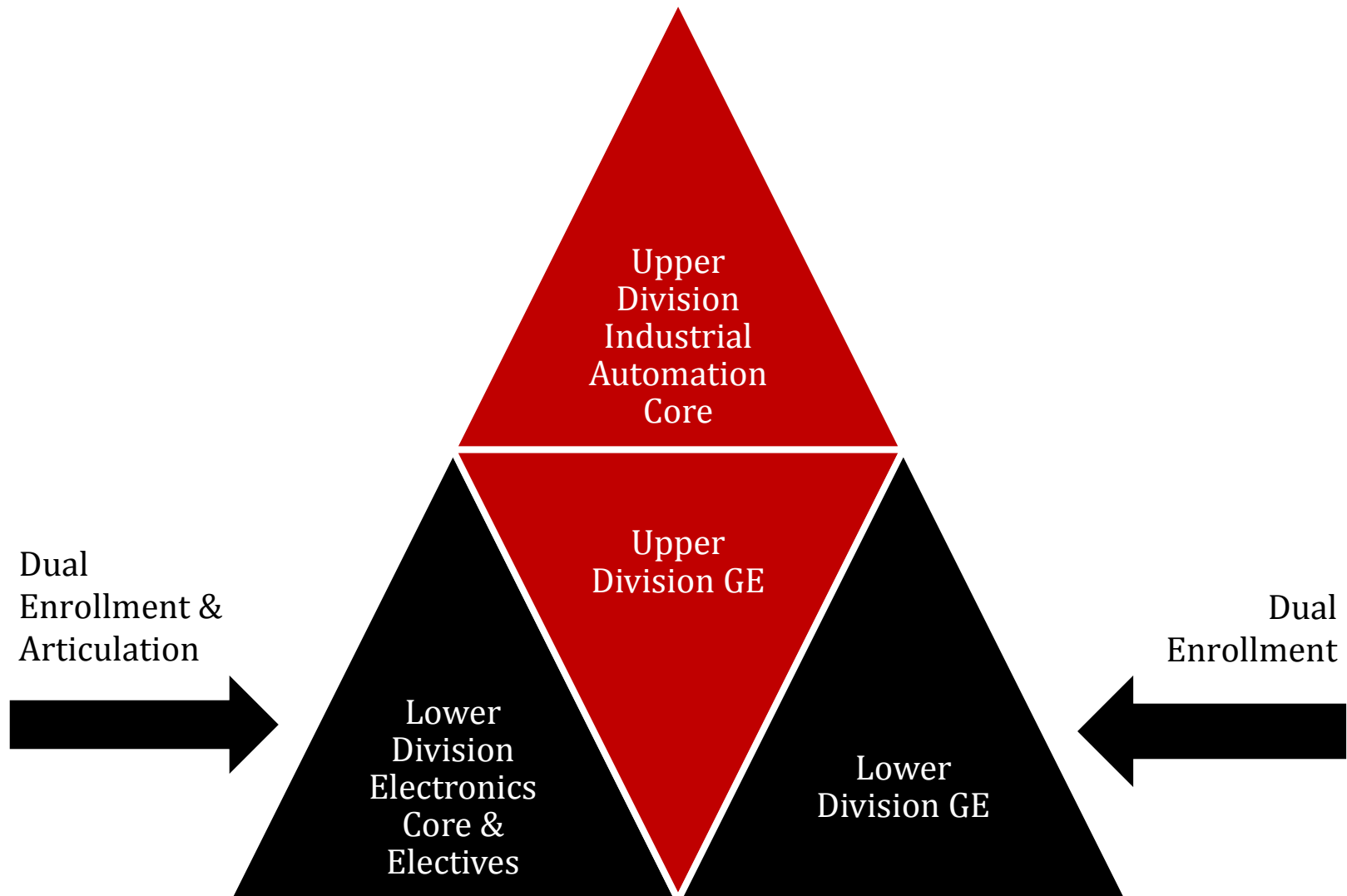
# CHANGES IN CURRICULUM

Area	Fall, 2016	Fall, 2017	Fall, 2018
Lower Division Technical Core	19	25	27
Lower Division GE	41	41	41
Lower Division Electives	0	3	2
Upper Division Technical Core	51	42	42
Upper Division GE	9	9	9
<b>TOTAL</b>	<b>120</b>	<b>120</b>	<b>121</b>

## HOW DOES THIS AFFECT THE COST OF THE PROGRAM?

Area	Fall, 2016	Fall, 2017	Fall, 2018
Lower Division Technical Core	\$874	\$1,150	\$1,242
Lower Division GE	\$1,886	\$1,886	\$1,886
Lower Division Electives	0	\$138	\$92
Upper Division Technical Core	\$6,630	\$5,460	\$5,460
Upper Division GE	\$1,170	\$1,170	\$1,170
<b>TOTAL</b>	<b>\$10,560</b>	<b>\$9,804</b>	<b>\$9,850</b>

# CURRICULAR PATHWAY



# STACKABLE PATHWAY

## Industrial Automation Bachelors of Science Degree

### Technical Core

INDA B100 INDA B105 INDA B110 INDA B114 INDA B120 INDA B121 INDA B122  
INDA B125 INDA B132 INDA B135 INDA B140 INDA B143 INDA B144 INDA B150

### CSU GE

COMM B5  
SPAN B1  
PHIL B10  
ECON B1

### Upper Division GE

ENGL B100  
PSYC B100  
PHIL B100

### Industrial Automation AS Degree

ELET B55a ELET B56  
ELET B61 INDR B12  
STDV B1

3-4 units Electives  
(Electronics,  
Manufacturing,  
Welding, & Automotive)

### Suggested BC GE

COMM B8, HIST B17A,  
ENGL B1A, POLS B1,  
PHYS B2A, MATH B1A,  
CRPS B5, PSYC B1A,  
ART B4, PHED

### Industrial Automation Certificate

ELET B1

### Industrial Automation Job Skill Certificate

ELET B5  
ELET B4  
ELET B58

# PATHWAY STRATEGIES – DUAL ENROLLMENT & ARTICULATION

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### Technical Core

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**SPAN B1**  
PHIL B10  
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**ELET B4**  
ELET B58

# CURRENT DUAL ENROLLMENT STATISTICS

School	Type	Course	Enrollment
Independence (17-18)	Dual	ELET B1	26
Robert F Kennedy (17-18)	Dual	ELET B1	30
ROC (17-18)	Articulation	ELET B5	55
ROC (16-17)	Dual	ELET B1	6
Independence (16-17)	Dual	ELET B1	10



# PATHWAY STRATEGIES – ONLINE & HYBRID OPPORTUNITIES

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ELET B4  
ELET B58

# WHAT ARE THE SENIOR PROJECTS?

Senior Project Title	Industrial Sponsor	Contact Person	Tech. required	Student Team
Vision-Guided Robotic Packaging – Case Packing Systems at Tasteful Selections	Tasteful Selections Arvin	Samuel Gomez Engineering Manager	FANUC robot, Vision, PLCs, and HMI Programming	Armando Gutierrez Kori Masilon Richard Van Horne
Sunseal Adhesive Measurement for Asphalt Shingle Line	GAF Roofing Shingles Shafter	Nigel Abraham Plant Manager	2-D vision profiler systems (non-contact), HMI Programming	Dawn Mosley Timothy Carrillo
Human Machine Interface (HMI) Redesign for Nestle Production Operators	Nestle Dreyer's Ice cream Bakersfield	Raj, Srinivas Manager Factory Engineering	Allen Bradley ControlLogix PLC and HMI programming	Miguel Ceja Griselda Flores

# WHAT IS THE FUTURE OF THE BACCALAUREATE DEGREE?

<b>Current Legislation</b>	<b>Impending Legislation</b>	<b>Impending Legislation</b>
SB 850: Pilot Program	SB 769: Pilot Program	SB 1406: Pilot Program
Sunset Date: July 1, 2023	Sunset Date: July 1, 2028	Effective Sunset Date: July 1, 2025
Last Graduating Class in 2023	Last Graduating Class in 2028	Last Graduating Class in 2025
Last Upper Division Cohort Fall, 2021	Last Upper Division Cohort Fall, 2026	Last Upper Division Cohort Fall, 2022
Last Lower Division Cohort Fall, 2019	Last Lower Division Cohort Fall, 2024	Last Lower Division Cohort Fall, 2020