

AUTOMATED BUILDING CONTROLS ASSOCIATE IN SCIENCE DEGREE

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PROGRAM CODE: 1S41721

Financial Aid Eligible

The **Automated Building Controls Associate in Science Degree** provides students with a career path for attaining the communication skills, practical knowledge, and technical training necessary for pursuing a career in controls and energy management. This training also prepares students to install, service, operate, maintain, and troubleshoot building automation systems (BAS) in commercial buildings, controlling Heating, Ventilation, and Air Conditioning (HVAC) Systems, energy management systems, as well as lighting, life safety, and security systems. Students who complete this program can significantly impact building operation and energy consumption. To earn an Associate Degree students must complete: (1) all major course requirements with a grade of C or better; (2) Cypress College Native General Education requirements; California State University General Education Breadth requirements (CSU GE Breadth) or IGETC General Education requirements; (3) the social justice, equity and sustainability and reading requirements; (4) any elective courses to complete a minimum of 60 units; and, (5) have a minimum GPA of 2.0. At least 50% of all major course work must be completed at Cypress College. This degree requires a total of 41 units in the major, in addition to general graduation requirements.

Code	Title	Units
Required courses are listed in a suggested sequence: (41 units)		
AC/R 100 C	Principles of Thermodynamics and Heat Transfer	3
AC/R 220 C	Introduction to Air Conditioning Controls (formerly A/C Controls and Energy Management)	2
AC/R 272 C	Fundamentals of Direct Current Electricity	3
AC/R 273 C	Introduction to Personal Computer Hardware and Software	2
AC/R 105 C	Electricity for Air Conditioning and Refrigeration I	3
AC/R 137 C	Blueprints and Dimension Analysis (formerly AC/R 037 C)	2
AC/R 276 C	Automation Hardware	2
AC/R 277 C	Control Logic Programming	3
AC/R 215 C	Codes and Commissioning (formerly Estimating for HVAC)	3
AC/R 106 C	Electricity for Air Conditioning and Refrigeration II	3
AC/R 275 C	System Networking	3
AC/R 274 C	Instrumentation for Hydronic and Air Distribution	2
AC/R 205 C	Commercial Air Conditioning	3
AC/R 278 C	Building Performance and Energy Auditing	3
AC/R 279 C	Building Automation Control Systems	2
AC/R 280 C	Automation Capstone Project	2
Total Units		41