BUILDING AUTOMATION SYSTEMS (BAS), CERTIFICATE

The **Building Automation Systems (BAS) certificate** prepares a student for an entry level building or energy controls technician position. This certificate requires 37 credits in the courses listed below.

For more information about Heating, Ventilation, Air Conditioning & Refrigeration, please visit the program page (http://www.cod.edu/hvacr/).

Certificate Requirements

Field of Study Code: HVACR.CER.SYSTM

Code	Title	Credits
HVACR 1100	Refrigeration Principles	3
HVACR 1105	Introduction to Safety, Materials and Equipment	3
HVACR 1108	Refrigerant Certification	1
HVACR 1110	Introduction to Electricity and Hvacr Controls	3
HVACR 1181	Heating Principles	3
HVACR 2202	Commercial Air Conditioning	3
HVACR 2230	HVACR Control Systems	3
HVACR 2231	Building Automation Control Devices	3
HVACR 2233	Bldg Automation Systems With Object-Oriented Programming I	3
HVACR 2234	Bldg Automation Systems With Object-Oriented Programming II	3
HVACR 2235	Building Commissioning	3
HVACR 2237	Building Automation Systems Solutions	3
HVACR 2238	Building Automation System Integration with Open Protocols	3
Total Credits		**37**