

## First Read Curriculum Review

### Programs 4/27/23

| Meeting Date | Program Title                           | Program Description   | Program Type (B, ADT, AA, AS, CA, JSC, NC) | Request Type | Units / Hours | Start Semester |
|--------------|---|---|--|--------------|---------------|----------------|
| 4/27/2023    | Academic Research Skills                | <p>The Certificate of Competency in Academic Research Skills (NC) prepares students to navigate college-level research and to develop key information-seeking and evaluative strategies for successful source finding and utilization. This 18-hour certificate guides students through two courses, beginning with starting research strategies and finding information, and culminating in evaluating information. This program allows students to gain the preliminary college-level research skills of developing strategies to find information, finding and evaluating a range of sources relevant to research, and using information ethically.</p> <p>To achieve the Certificate of Competency:<br/>Upon completion of the following courses with a grade of 'P', the student will be awarded a Certificate of Completion.</p>  | Certificate of Competency                  | New          | 0             | Summer 2023    |
| 4/27/2023    | Research Laboratory Technology          | <p>Bakersfield College's Baccalaureate Degree Program in Research Laboratory Technology will train students in key skills, scientific theory, and laboratory practices to equip them for technician careers utilizing: (1) modern instrumentation for qualitative and quantitative sample analyses, (2) "good laboratory practice", cleaning, and laboratory maintenance, (3) documentation skills for OSHA and other laboratory regulations and standards, and (4) computer systems for program management and reporting.</p> <p>Upon completion of graduation requirements and the required degree courses with at least a "C" grade in each course, the student will be awarded a Bachelor of Science degree.</p>  | Bachelor of Science                        | New          | 120 - 130     | Fall 2023      |
| 4/27/2023    | Automotive Heating and Air Conditioning | <p>The Automotive Heating and Air Conditioning Certificate signifies that the student has developed skills to diagnose and repair several types of heating and air conditioning systems found in automotive, agriculture, and industrial applications. Students can implement the skills in daily employment throughout the associated industries, such as automotive and heavy-duty dealerships, independent repair shops, performance shops, construction companies, agriculture companies, government agencies, etc.</p> <p>Students earning this certificate will be prepared to further pursue certification through ASE in the A7, T7, H7, and S7. Students will have earned MACS Section 609 certification under Section 609 of the Environmental Protection Agency (EPA) Clean Air Act.</p> <p>Career Opportunities:<br/>Automotive Technician, Automotive HVAC Technician.</p> <p>Upon completion of the required courses with at least a 'C' or 'P' grade in each course, the student will be awarded a Certificate of Achievement.</p> | Certificate of Achievement                 | Revision     | 12            | Summer 2024    |
| 4/27/2023    | Construction Technology                 | <p>The requirements for the Construction Technology Certificate of Achievement are intended to provide students with the opportunity to develop skills and knowledge to enter into the diverse residential construction field. So each student can explore and design their respective career path, emphasis is placed on blending technical skill development, industrial safety with practical lab activities. Students can obtain these courses from within the Construction Technology area and from the various related disciplines (architecture, industrial drawing, industrial technology and wood technology).</p> <p>To Achieve the Certificate of Achievement:<br/>Upon completion of the required courses with at least a "C" or "P" grade in each course, the student will be awarded a Certificate of Achievement.</p>  | Certificate of Achievement                 | Revision     | 40 - 41       |                |

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| 4/27/2023    | Industrial Automation Associates Degree | <p>The Associate of Science (AS) in Industrial Automation includes hands-on coursework in basic electronics (DC and AC), programmable logic controllers (PLC's), instrumentation and process control, electric motors, telecommunication systems, AutoCAD, and chemistry. This degree teaches essential skills that can be put to use as an industrial technician, electronics technician, field service representative, or a technical salesperson. Graduation with the AS degree requires students to complete the Bakersfield College general education pattern, the CSU Breadth general education pattern, or the IGETC general education pattern. Students completing the AS in Industrial Automation with either CSU Breadth or IGETC general education will be prepared to apply for admission to the Bachelor of Science degree in Industrial Automation at Bakersfield College.</p>  | Associate of Science                       | Revision     | 68-79.5       | Fall 2023      |
| 4/27/2023    | Industrial Automation Bachelor Degree   | <p>Industrial automation represents the technology-driven business model of the 21st century. In today's industry, engineers involved in developing new products or processes work closely with technologists who apply scientific and technical knowledge in the design, manufacturing, and repair of automation systems. The Bachelor of Science degree in Industrial Automation equips students with the skill set those technologists require in a wide range of industries. Lower division core required courses include DC electronics, AC Electronics, computer integrated manufacturing, programmable logic controllers, instrumentation/process control, electric motors, and AutoCAD. Upper division technical courses cover a broad range of technical topics including industrial networks, process control, and robotics, courses in project management, quality management, facilities planning, and safety management.</p> <p>The program builds upon the college's associate degree program in electronics, allowing students who complete the associate degree or equivalent coursework from other colleges to enter as juniors and earn a baccalaureate.</p> <p>Student must complete either the CSU Breadth or the IGETC general education pattern to be graduate with a bachelor's degree in industrial automation. In addition, the following nine units of upper division general education are required:</p> <p>ENGL B100 "Technical Writing"<br/>                     PHIL B100 "Industry Ethics"<br/>                     PSYC B100 "Industrial and Organizational Psychology"</p> <p>To Achieve the Bachelor of Science<br/>                     Upon completion of graduation requirements and the required degree courses with at least a "C" grade in each course, the student will be awarded a Bachelor of</p> | Bachelor of Science                        | Revision     | 120 - 129.5   | Fall 2023      |

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| 4/27/2023    | Industrial Drawing          | <p>Students who complete the Industrial Technology degree with the Industrial Drawing option will acquire information, skills, and training in a variety of fields that will enable them to apply their knowledge in an array of situations, including engineering and manufacturing settings. Students will acquire the practical knowledge and skills to successfully enter industry employment or to advance within their organization. Career opportunities include architecture, engineering, industrial technology draftsman, CAD Technician, engineering technician, CAD Manager, and detailer.</p> <p>Career Opportunities: Architectural and Civil Drafters, Electrical and Electronics Drafters, Engineering Technician, Mechanical Drafters</p> <p>To Transfer Coursework, a minimum of 31 semester units in the major with a grade of 'C' or better while maintaining a minimum grade point average of at least 2.0 in all California State University transferable coursework.</p> <p>Upon completion of graduation requirements and the required degree courses with at least a "C" or "P" grade in each course, the student will be awarded an Associate of Science degree.</p> | Associate of Science                       | Revision     | 60 - 71       | Summer 2024    |
| 4/27/2023    | Industrial Drawing AutoCAD  | <p>This certificate covers the principles of industrial drawing/CAD with the emphasis on using the AutoCAD software package from basic 2D principles through 3D solid modeling to obtain graphic solutions, design refinements, modifications and delineations. Software customization is also emphasized.</p> <p>Career Opportunities: Architectural and Civil Drafters, Electrical and Electronics Drafters, Mechanical Drafters. Upon completion of the required courses with at least a "C" or "P" grade in each course, the student will be awarded a Job Skills Certificate.</p>   | Job Skills Certificate                     | Revision     | 9-Sep         | Summer 2024    |
| 4/27/2023    | Woodworking & Cabinetmaking | <p>This certificate covers the principles of woodworking to include materials, hand tools, wood cutting machinery and wood finishing. Emphasis will be put on designs to include modular construction, new materials and processes. Advanced bidding techniques are discussed.</p> <p>Career Opportunities:<br/>Cabinetmaker, Carpenter</p> <p>To Achieve the Job Skills Certificate:<br/>Upon completion of the required courses with at least a "C" or "P" grade in each course, the student will be awarded a Job Skills Certificate.</p>   | Job Skills Certificate                     | Revision     | 7-Jul         | Fall 2023      |