BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY
MANUFACTURING SYSTEMS & AUTOMATION TRACK

TRANSFORMING MANUFACTURING THROUGH AUTOMATION

The Manufacturing Systems & Automation program is designed to provide students with comprehensive knowledge and practical skills in the field of modern manufacturing processes and automation technologies. This program focuses on integrating advanced automation systems with manufacturing operations to enhance productivity, efficiency, and quality in industrial settings.

This well-rounded degree can prepare you for jobs such as:

- *Manufacturing Engineer*
- *Automation Engineer*
- *Process Improvement Specialist*
- *Robotics Engineer*
- *Production Planner*
- *Quality Assurance Engineer*
- *Manufacturing Systems Analyst*
- *CAD/CAM Engineer*
- *Industrial Engineer*
- *Computer Systems Analyst*

WHY MANUFACTURING SYSTEMS & AUTOMATION?

- Technological Advancements: Automation and advanced manufacturing technologies are revolutionizing the manufacturing industry, creating a growing demand for professionals with expertise in this field.
- Enhanced Productivity: The program equips students with skills to optimize manufacturing processes, integrate automation systems, and improve overall productivity and efficiency.
- Industry 4.0 Focus: The program prepares students for the era of Industry 4.0, where automation, data analytics, and connectivity are transforming traditional manufacturing operations.
- Problem-Solving Skills: Students develop critical thinking and problem-solving abilities to tackle complex manufacturing challenges and implement innovative solutions.
- Hands-On Experience: Many programs offer practical training and access to state-of-the-art manufacturing facilities, allowing students to gain hands-on experience with automation technologies.
- Industry Collaboration: Collaborations with industry partners provide opportunities for internships, industry projects, and networking, enhancing students' career prospects.networking, enhancing students' career prospects.

+ WELL-ROUNDED CURRICULUM

+ DEDICATED AND HIGH QUALITY FACULTY

+ EXTENSIVE ENGAGEMENT OPPORTUNITIES

PROGRAM COORDINATOR

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TOTAL MAJOR COURSEWORK: 71 HRS

REQUIRED CORE COURSEWORK: 53 HRS

CMG 2953 Statics and Strength of Materials
EGT 1303 Engineering Technology Applications
EGT 1323 Computers for Engineering Technology
EGT 1413 Introduction to Engineering Technology
EGT 2004G Materials Science and Evaluation
EGT 2043 Computer-Aided Engineering Drawing
EGT 2324 Electricity and Electronic Controls
EGT 2424 Manufacturing and Fabrication Processes
EGT 2773 Safety for Engineering Technology Professionals
EGT 3414 Engineering Technology Project Management
EGT 4503 Engineering Technology Cost Analysis
EGT 4704 Engineering Technology Capstone
EGT 4753 Lean Manufacturing
EGT 4843 Statistical Quality & Reliability
EGT 4943 Manufacturing Management
ODL 4835 Supervision in Organizations

MANUFACTURING SYSTEMS & AUTOMATION: 18 HRS

CIT 1813 Introduction to Programming (C++)
CIT 4843 Human Computer Interaction
EGT 3103 Robots & Control Systems
EGT 3763 Automation & Data Capture

+ SELECT 6 HOURS OF THE FOLLOWING:

EGT 3663 CNC & Rapid Prototyping
EGT 3703 Machine Design
EGT 4803 Plant Layout & Material Handling
EGT 4903 OSHA Certification for General Industry
OSC 3430 Enterprise Resource Planning Systems
TEC 4275 Internship. *Credits: 1 to 10*

EMPLOYMENT OF MANUFACTURING SYSTEM ENGINEERS IS PROJECTED TO GROW 9% FROM 2021 TO 2031, FASTER THAN THE AVERAGE FOR ALL OCCUPATIONS.
U.S. Bureau of Labor Statistics

SUGGESTED 4-YEAR SEQUENCE

FALL		YEAR 1 SPRING	
EGT 1303	3	CIT 1813	3
EGT 1323	3	EGT 2043	3
EGT 1413	3	EGT 2004G	4
ENG 1001G	3	ENG 1002G	3
Humanities	3	Social & Behavioral	3
Total	15	Total	16

FALL		YEAR 2 SPRING	
EGT 2324	4	Social & Behavioral	3
CMG 2953	3	EGT 2424	4
EGT 2773	3	Social & Behavioral	3
CMN 1310G	3	Biological Science	3
Math	3	Fine Arts	3
Total	16	Total	16

FALL		YEAR 3 SPRING	
ODL 4835	3	EGT 4503 *Odd years	3
EGT 3414	4	EGT 4753 *Odd years	3
EGT 3101 *Even years	3	EGT 4843	3
Elective	3	Elective	3
Elective	3	Elective	3
Total	16	Total	15

FALL		YEAR 4 SPRING	
EGT 4943	3	EGT 4704 * Even years	4
EGT 3763 * Odd years	3	Humanities/Fine Arts	3
CIT 4843	3	EGT 4803 *Even years	3
Elective	3	EGT 4903 *Even years	3
Elective			
Total	12	Total	13