

Industrial Systems Technology

FALL 2009

[A50240] Associate in Applied Science Degree (Day and Evening);

[D50240] Diploma (Day & Evening); [C50240] Certificate (Day & Evening)

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

COMPETENCIES

Randolph Community College is committed to continuous improvement through program evaluation. One part of the evaluation is to assess program competencies. While our program contains many competencies for students to achieve, each year a select few are chosen for assessment purposes. This year, program competency assessment will focus on these:

1. Properly weld metals.
2. Identify and explain hydraulic/ pneumatic circuits.
3. Distinguish components in a HVAC system.
4. Illustrate proper machining techniques.
5. Demonstrate proper use of general mechanical maintenance knowledge.

GENERAL ADMISSIONS REQUIREMENTS FOR CURRICULUM PROGRAMS

Applicants for admission to Randolph Community College must be 18 years of age or high school graduates. The College will accept students with a high school equivalency diploma. A high school diploma or the equivalent is required of all applicants enrolling in curriculum courses. Persons intending to enroll in a specific curriculum are encouraged to submit their applications at least two months prior to the term in which they wish to enroll. Applicants are not admitted into specific curriculum programs, and thus, not eligible for financial aid until admission requirements are met (i.e. transcripts, testing, etc.). Applications can be obtained from high school counselors and from Student Services.

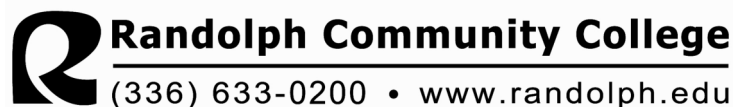
IN ORDER TO ENROLL, THE STUDENT SHOULD

- complete an RCC application,
- provide official copies of high school transcript and/or GED test scores and all college transcripts,*
- call (336) 633-0224 to discuss placement testing,
- meet with someone in RCC's financial aid office if necessary, (336) 633-0205,
- meet with your faculty advisor (during specified registration period),
- register and pay for classes (during specified registration period).

*Applicants who are high school graduates should request a copy of their high school transcript. In cases where the last six weeks' work is not completed, a supplemental transcript should be forwarded to the College after the student's graduation. GED graduates must submit official copies of their GED test scores. Students transferring from other colleges or post-high school institutions must submit official transcripts from all such institutions attended. For transcript release forms, call Student Services, (336) 633-0224. Transcripts are not official unless they are sent directly from the high school or college attended.

FACULTY ADVISORS

The faculty advisors for Industrial Systems Technology are: Keith Bunting, (336) 633-0257), khbunting@randolph.edu; and Anuar Dau, (336) 633-0257, amdau@randolph.edu.



DAY

	Hours/Week			Sem. Hrs
	Class	Lab	Wk. Exp.	Credit
First Year: Fall Semester				
BPR 111 **Blueprint Reading	1	2	0	2
CIS 113 *Computer Basics	0	2	0	1
ELC 113 *Basic Wiring I	2	6	0	4
ELC 126 **Electrical Computations	2	2	0	3
ISC 112 **Industrial Safety	2	0	0	2
MNT 110 **Intro. to Maintenance Proc.	<u>1</u>	<u>3</u>	<u>0</u>	<u>2</u>
	8	15	0	14
First Year: Spring Semester				
AHR 120 HVACR Maintenance	1	3	0	2
ELC 112 *DC/AC Electricity	3	6	0	5
ELC 115 *Industrial Wiring	2	6	0	4
WLD 112 *Basic Welding Processes	<u>1</u>	<u>3</u>	<u>0</u>	<u>2</u>
	7	18	0	13
First Year: Summer Session				
ENG 111 *Expository Writing	3	0	0	3
--- Humanities/Fine Arts	3	0	0	3
PHY 121 *Applied Physics I	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
	9	2	0	10
Second Year: Fall Semester				
ELC 117 *Motors & Controls	2	6	0	4
ELC 125 Diagrams and Schematics	1	2	0	2
MEC 111 *Machine Processes I	1	4	0	3
--- Social/Behavioral Science	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	7	12	0	12
Second Year: Spring Semester				
ELC 128 Introduction to PLC	2	3	0	3
HYD 110 Hydraulics/Pneumatics I	2	3	0	3
MAC 124 CNC Milling	1	3	0	2
MEC 110 Introduction to CAD/CAM	1	2	0	2
MNT 111 Maintenance Practices	<u>2</u>	<u>2</u>	<u>0</u>	<u>3</u>
	8	13	0	13
Second Year: Summer Session				
ELN 260 Prog. Logic Controllers	3	3	0	4
ENG 114 *Prof Research & Reporting	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	6	3	0	7

*Courses required for diploma (day and evening)

**Courses required for diploma and certificate (day and evening)

EVENING

	Hours/Week			Sem. Hrs
	Class	Lab	Wk. Exp.	Credit
First Year: Fall Semester				
BPR 111 **Blueprint Reading	1	2	0	2
ELC 126 **Electrical Computations	2	2	0	3
ISC 112 **Industrial Safety	2	0	0	2
MNT 110 **Intro. to Maintenance Proc.	<u>1</u>	<u>3</u>	<u>0</u>	<u>2</u>
	6	7	0	9
First Year: Spring Semester				
ELC 112 *DC/AC Electricity	3	6	0	5
ELC 113 *Basic Wiring I	<u>2</u>	<u>6</u>	<u>0</u>	<u>4</u>
	5	12	0	9
First Year: Summer Session				
CIS 113 *Computer Basics	0	2	0	1
PHY 121 *Applied Physics I	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
	3	4	0	5
Second Year: Fall Semester				
ELC 115 *Industrial Wiring	2	6	0	4
ENG 111 *Expository Writing	3	0	0	3
WLD 112 *Basic Welding Processes	<u>1</u>	<u>3</u>	<u>0</u>	<u>2</u>
	6	9	0	9
Second Year: Spring Semester				
ELC 117 *Motors & Controls	2	6	0	4
MEC 111 *Machine Processes I	<u>1</u>	<u>4</u>	<u>0</u>	<u>3</u>
	3	10	0	7
Second Year: Summer Session				
--- Humanities/Fine Arts	3	0	0	3
HYD 110 *Hydraulics/Pneumatics I	<u>2</u>	<u>3</u>	<u>0</u>	<u>3</u>
	5	3	0	6
Third Year: Fall Semester				
ELC 125 Diagrams and Schematics	1	2	0	2
MNT 111 Maintenance Practices	<u>2</u>	<u>2</u>	<u>0</u>	<u>3</u>
	3	4	0	5
Third Year: Spring Semester				
AHR 120 HVACR Maintenance	1	3	0	2
ELC 128 Introduction to PLC	2	3	0	3
MEC 110 Introduction to CAD/CAM	<u>1</u>	<u>2</u>	<u>0</u>	<u>2</u>
	4	8	0	7
Third Year: Summer Session				
ENG 114 *Prof Research & Reporting	3	0	0	3
--- Social/Behavioral Science	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	6	0	0	6
Fourth Year: Fall Semester				
ELN 260 Prog. Logic Controllers	3	3	0	4
MAC 124 CNC Milling	<u>1</u>	<u>3</u>	<u>0</u>	<u>2</u>
	4	6	0	6

TOTAL SEMESTER HOURS CREDIT FOR DEGREE: **69**

TOTAL SEMESTER HOURS CREDIT FOR DIPLOMA: **39**

TOTAL SEMESTER HOURS CREDIT FOR CERTIFICATE: **14**

Visit RCC's website: www.randolph.edu

An application for admission is available to be downloaded from the web