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## Northeast Wisconsin Technical College

### *Land Acknowledgement Statement*

The region served by NWTC **occupies the ancestral home** of the Menominee Nation, who have **persisted here** in Northeast Wisconsin from **before recorded history** to the present day. The College's Green Bay campus exists **upon lands ceded from the Menominee Tribe to the Oneida Nation**. We acknowledge this land we stand upon today as sacred, historical, and significant to the Menominee and Oneida Nations as are the **lands of all First Nations People**.

See more detail at <https://tinyurl.com/244wh3xf>

## SMART START TO BUILDING AUTOMATION SYSTEMS (BAS) SYLLABUS

Catalog # 10-481-103 & Class #83111

Starts: October 20, 2022      Ends: December 15, 2022



### INSTRUCTOR INFORMATION & RESPONSIBILITIES

**Instructor** Jenny Brinker  
**Office** EE101 Cubicle F  
**Telephone** (920)680-1167  
**Email** jenny.brinker@nwtc.edu  
**Availability** Please make an appointment. Feel free to call, email, or text message.

As a NWTC instructor, I am expected to:

- *Maintain a professional, safe learning environment while adhering to the policies of the college.*
- *Provide open and frequent communication with learners regarding their progress in this class.*
- *Reply to communications within 48 business hours.*
- *Grade assignments and post scores in Blackboard regularly.*
- *Provide feedback to guide learners toward improvement of their coursework.*
- *Post information about assignments in Blackboard Learning Plans and Grade Center.*
- *(In the event of a college level cancellation) Communicate with learners a detailed plan regarding expectations for responding to the cancellation within 24-hours.*

### CLASS INFORMATION

**Class Schedule & Class Meeting Location:** This class meets on the following days/times:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	2:30PM - 4:20PM EE203		2:30PM - 4:20PM EE203			

**Class Delivery Mode & How to Participate:** This class meets in person. For a definition of this delivery mode, please see information on the Ways of Learning page. For a detailed explanation of class participation and expectations, please see the Attendance & Participation section.

**Course Description:** Identify and understand how building mechanical systems including ventilation and air handling, heating, cooling, and lighting components are used to provide human comfort. The course focus is on Building Automation System (BAS) components, including system architecture and sequences of operation.

**Credits:** 1

**Pre-requisites/Corequisites:** none

**Textbooks:** none

**Supplies/Technology:** Access to a computer for class activities and other resources as directed by your instructor. A digital multi meter, controller, HOBO data logger and other hardware is provided as part of instruction.

**Course Competencies:**

1. Identify the Primary Components of Building Automation Systems
2. Analyze basic Building Energy and Electricity quantitative information / data
3. Relate Occupant Comfort Variables Controlled by Building Automation Systems (BAS) to HVAC Operation

**Employability Skills:** In addition to specific job-related training, NWTC has identified the following transferrable employability skills reaching beyond the context of a specific course:

1. Communicate Effectively
2. Work Cooperatively and Professionally
3. Think Critically and Creatively
4. Solve Problems Effectively
5. Value Individual Differences and Abilities
6. Demonstrate Personal Accountability
7. Demonstrate Community and Global Accountability

**Student Services to Support You:**

Being in college is an exciting time to develop skills, further your career path, and build community. We don't want financial challenges to get in your way! Our team is ready to support basic needs such as groceries, housing assistance, transportation assistance, and more. Our goal is to keep you on track with your studies and educational goals. If you are experiencing a financial emergency or an unexpected event in your life, let us help. Support services are available at all NWTC locations. Our main office is located on the Green Bay campus in SC133. We can be reached by phone (920) 498-6258, email [supportservices@nwtc.edu](mailto:supportservices@nwtc.edu) or in-person. For more information, please visit us at [www.nwtc.edu/student-experience/student-support-services](http://www.nwtc.edu/student-experience/student-support-services).

Additionally, NWTC provides many services and support networks to assist our students. Descriptions of these services can be found in the NWTC Student Handbook or at [www.nwtc.edu/students](http://www.nwtc.edu/students). We encourage you to learn about the resources available to you, ranging from student involvement and personal counseling to academic, financial aid, or career advising. When you are looking for services, please contact your instructor or academic advisor via Starfish, or by calling (920) 498-5444.

**Academic Coaching (Tutoring) at NWTC:** Academic Coaching provides an additional layer of support to ensure students achieve their academic goals. Academic Coaching is committed to serving all students as an academic resource to promote student growth and success. Students who use Academic Coaching receive content help, but also gain study skills, organization skills, time management, and confidence. We understand that school can be challenging; let us help you reach your academic goals at [www.nwtc.edu/academiccoaching](http://www.nwtc.edu/academiccoaching)

### NWTC ALL-COLLEGE POLICIES

These policies are in effect for all classes at NWTC.

This syllabus is a learning contract between you and your instructor. In addition to your syllabus, there are policies and procedures listed in the NWTC Student Handbook that all students must uphold. Please refer to the NWTC Student Handbook to raise your awareness and understanding of the College's expectations.

[NWTC Student Handbook](#)

- [Academic Integrity \(includes Plagiarism, cheating and collusion\)](#)
- [Drop from a Class or Program](#)
- [Student Academic Grievance](#)
- **Discrimination and Harassment Prevention:** NWTC is committed to embracing the worth of every individual and promoting a respectful environment. Discrimination and harassment of protected categories in its employment and educational programs is prohibited. For questions or concerns, contact Mohammed Bey, Chief Diversity Officer, by email at [mohammed.bey@nwtc.edu](mailto:mohammed.bey@nwtc.edu) or by phone at (920) 498-6826.
- **Disability Act Statement:** NWTC is committed to creating a learning environment that meets the needs of its diverse student body. NWTC complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. If you have a disability, please call Disability Services at (920) 498-6904 to begin a conversation regarding the support services available to you or to request an official accommodation.
  - [Accessibility & Data Privacy](#)

**Student Academic Calendar:** Visit [Academic Calendar page](#) for important College dates you should add to your personal calendar.

### CLASS SPECIFIC POLICIES

In addition to the college policies referenced, the following instructor policies also apply to this course.

**Attendance and Participation:** We learn from each other in an interactive, real-time format, and we need to make the most of this opportunity. Responsible participation includes preparing for class, attending each class, contributing positively to class discussions and other activities, turning in assignments on time and following the course calendar. Please limit side conversations during class lecture/discussions.

**Estimated number of hours required to be successful in the class, (class hours and outside hours for homework, readings, etc.)** The amount of time you spend on reading, completing course assignments and activities will differ. Weekly, students should expect to spend three to six hours outside of the class time studying and completing online activities.

**Technology Skills & Assistance:** Assignments and activities in this course will use word, presentation and spreadsheet apps like Microsoft Word, PowerPoint, and Excel.

#### Research Help

Find resources through [Library Search](#), the [online databases](#), or your [program guide](#). Visit the [Ask a Librarian FAQ site](#) to contact librarians, explore the [Research Skills Tutorial](#), or learn to [Cite Sources](#).

## Technology Help

Get technical assistance by calling the Student Help Desk at (920) 498-6900 or 1-866-235-5037.

Learn more about the technology skills needed to be successful at NWTC (such as sending email, using software for assignments, submitting online work, and using test monitors) by watching the [Technology 101 video series](#) or visiting the [Ask a Librarian FAQ site](#).

Find out how to [Download Office 365 for Free](#) and access [Off-Campus Software](#). Learn how to [borrow equipment from NWTC](#).

**Appropriate Use of Technology in Class:** Please silence cell phones and other electronic devices to minimize distractions (to yourself or others) in class. If you have important matters to attend to while in class, please ensure video and sound are turned off while you handle those issues. You may use a laptop for taking notes and class-related work (please do not conduct non-class-related Web surfing in class).

**Campus Closure Day(s) Procedure:** In the event of a campus closure, we will still likely have class! If a campus closure is announced, please check your email and Blackboard announcements for a message that will indicate how we will conduct class. If campus is closed we will most likely meet via WebEx, <https://nwtc.webex.com/meet/jenny.brinker>.

**Syllabus Changes:** Instructors retain the right to make changes based on the timeline of the class, feedback from learners and/or logistical issues. Students will be informed as soon as a change is made. A current copy of the course syllabus will be maintained by the division office.

## Grading Policy:

You can earn full credit for an assignment by submitting it in Blackboard by the assigned due date. If you submit an assignment late but within 7 days of the due date, you can earn up to 100% credit. After 7 days, you will not earn any credit.

## Grading Scale:

Scale	Grade
91-100	A
81-90	B
71-80	C*
51-70	D
0-50	F

\* C is the minimum passing grade for this class

**Course Calendar:**

Learning Plan	Assessments/Activities (Points)	Points	Competencies Assessed	Employability Skills Assessed	Due Date
Intro to Smart Start	View Jumpstart Your Future... Video	2	1	5, 7	10/20/22
LP1 What's in an Energy Bill	What's in an Energy Bill, Part 1 Activity	5	2	1, 3, 4, 6, 7	10/25/22
LP2 Energy Conversions & Beyond	Energy Conversions & Beyond Activity	5	2	1, 3, 4, 6, 7	10/25/22
LP3 Watts from the Sun	Watts from the Sun Activity	10	2	1, 2, 3, 4, 5, 6, 7	10/27/22
LP4 Home Appliances Survey	Home Appliances Survey Activity	10	1, 2, 3	1, 2, 3, 4, 5, 6, 7	11/1/22
LP5 Measuring Health and Comfort	Measuring Health and Comfort Part 1	2	1, 2, 3	1, 3, 4, 6, 7	Part 1: 11/3
	Measuring Health and Comfort Part 2	2			Part 2: 11/8
	Measuring Health and Comfort Part 3	4			Part 3: 11/15
LP5 Commercial Building Health & Comfort	Commercial Building Health & Comfort Activity	10	1, 2, 3	2, 3, 4, 6, 7	11/15/22
LP7 Electricity Demand Basics Activity	Electricity Demand Basics Activity	10	2	1, 3, 4, 6, 7	11/17/22
LP8 Commercial Building Energy Systems	Commercial Building Energy Systems	10	1, 2, 3	2, 3, 4, 6, 7	11/22/22
LP8 Tours of BAS in Commercial Building Systems	Tours of BAS in Commercial Building Systems – 360 Video(s) of air handler	10	1, 2, 3	2, 3, 4, 6, 7	11/29/22
	Tours of BAS in Commercial Building Systems – St Vincent Hospital -or-Festival	10			12/7/22
LP9 BAS Communication and Controller Basics	BAS Communication and Controller Basics Part 1	5	1, 2, 3	2, 3, 4, 6, 7	Part 1: 12/1
	BAS Communication and Controller Basics Part 2	5			Part 2: 12/6
LP10 Energy Savings with Temperature Setback	Energy Savings With Temperature Setback Activity	10	1, 2, 3	2, 3, 4, 6, 7	12/8/22
LP11 Exploring a Job in the Energy Industry	Exploring a Job in the Energy Industry Activity	10	1, 3	1, 3, 5, 6, 7	12/13/22

<b>Learning Plan</b>	<b>Assessments/Activities (Points)</b>	<b>Points</b>	<b>Competencies Assessed</b>	<b>Employability Skills Assessed</b>	<b>Due Date</b>
FINAL ASSESSMENT	Final Assessment	25	All	3, 4, 6	12/15/22