

# CDA 3104

## Introduction to Computer Design

Dr. Herman Watson

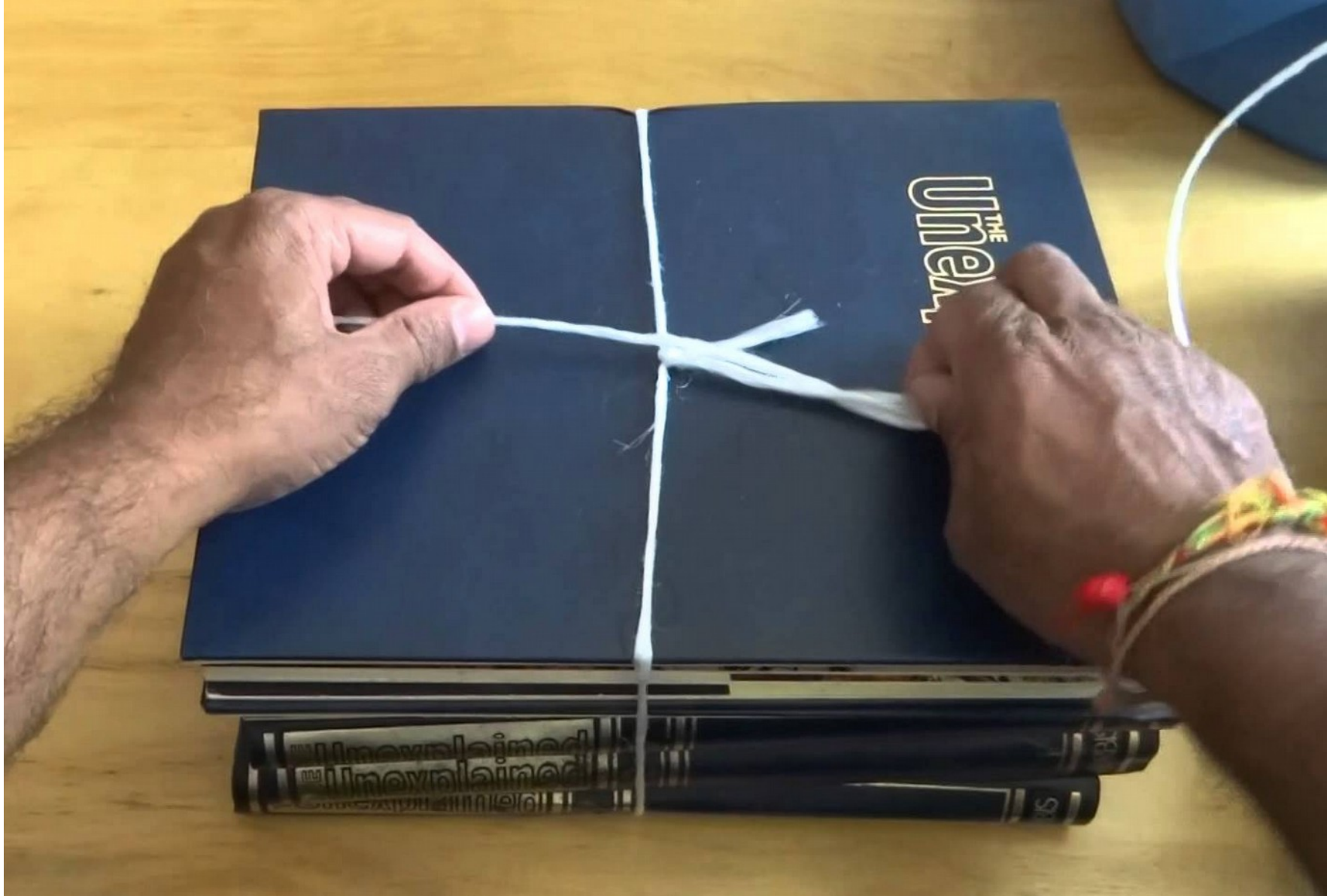
EC-3951

Florida International University

Telephone: 305-348-2807 (Engineering Secretary)

E-mail [watsonh\\_fiu@yahoo.com](mailto:watsonh_fiu@yahoo.com) (note underscore)

Web Page [web.eng.fiu.edu/watsonh](http://web.eng.fiu.edu/watsonh)



## What Will I Learn?

- Program microcontrollers with the C programming language.
- Use integrated input and output devices
- Use Low Power modes for battery operation
- Use Interrupts for wake-up and quick response
- Use timer/counter peripherals
- Use communication peripherals
- Use analog-to-digital converter peripherals
- Use the MSP430 to develop embedded systems
- Learn how to get data stream to displays, computers, other devices



This course does not waste time. From the very beginning, we jump right into first assignments and things to get accomplished. Keep up because the materials just keep moving.

This course is hands-on laboratory based

Almost every lecture and section of this course leads directly to a hands-on laboratory assignment. The more practice you get using the “real world” Texas Instruments MSP430 hardware and software, the more proficient you will become



This course is modular:

Are you new to the world of microcontrollers?

Great! This course is designed for you

You will learn to develop and work with sensors,  
data streams, and low power modes

There is a huge amount of information to tackle, so  
this course shows you from the start how to dive in  
and learn with simple examples.

As each module is completed you are prepared to  
learn more and put the pieces together

This course is packed with information. From the beginnings using  
simple C programming examples to advanced microcontroller  
peripherals, the course teaches you all of the building blocks used to  
build your own electronic systems

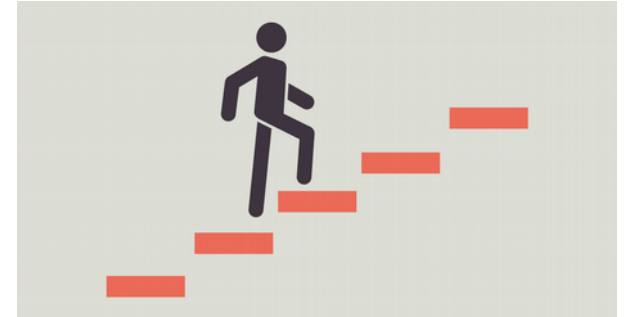


Each lesson takes you step-by-step through the learning process.

Each module provides sample code, documentation, examples, and web references to make sure you are supported through the course.

You are not alone. I can be contacted through my student email [watsonh\\_fiu@yahoo.com](mailto:watsonh_fiu@yahoo.com)

Send me a photo or screen shot of what the problem is to help explain the details. You will get a suggestive response which hopefully will help.



Course content each module:

Lecture video(s)

Written assignment details

Instruction video of Assignment

Your submissions:

A link to your 15 sec video of Assignment working

A link to your answers to Assignment questions

Weekly quiz

Reference materials:

URL links

Video links

Pdf materials

First things – see the video following this one

## ORDER MATERIALS NOW!

MSP430FR2433 Launchpad

Starter parts kit

Accelerometer

OLED display

Download the manuals

Reference Book that will help



**what did  
you  
learn  
today?**