

**EGN 1935 Home Automation Fundamentals**  
**Class Periods:** Tuesdays period 3-4 (9:35am-11:30am)  
**Location:** NSC 225  
**Academic Term:** Fall 2019

**Instructor:**

Name: David Nelms  
[davidnelms@ufl.edu](mailto:davidnelms@ufl.edu)

Office Hours: By Appointment

Name: Hans van Oostrom  
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352-392-1345

Office Hours: By Appointment

**Course Description**

An overview of home automation technologies from a functionality, specification perspective. Apply knowledge of home automation to group designed implementation.

**Course Pre-Requisites / Co-Requisites**

Engineering major or instructor permission.

**Course Objectives**

- Explain the connectivity issue associated with home automation
- Describe the tools and products used in home automation
- Describe and contrast different home automation ecosystems
- Design a home automation implementation
- Build and demonstrate a home automation implementation

**Materials and Supply Fees**

None

**Required Textbooks and Software**

None

**Recommended Materials**

None

**Course Schedule**

Date	Topic	Instructor	Work Due
Tue 8/20/19	Intro to home automation/connectivity/WiFi	Nelms	
Tue 8/27/19	Connectivity 2 Cloud/Bluetooth/Cellular/5G/Satellite	van Oostrom	
Tue 9/3/19	Alexa ecosystem	Nelms	
Tue 9/10/19	Google ecosystem	van Oostrom	Quiz 1 due
Tue 9/17/19	Video, cameras	van Oostrom	
Tue 9/24/19	Music, TV	Nelms	
Tue 10/1/19	Security/locks	van Oostrom	Quiz 2 due
Tue 10/8/19	Lights/appliances/climate control	Nelms	
Tue 10/15/19	TI Launchpad Kit module 1	Nelms Institute	
Tue 10/22/19	TI module 2	Nelms Institute	

Tue 10/29/19	Ti module 3	Nelms Institute	Quiz 3 due
Tue 11/5/19	Third Party ecosystems (IFTTT, etc)/Systems integration/Geofencing	van Oostrom	
Tue 11/12/19	Cyber/security	Nelms	
Tue 11/19/19	Final project	Nelms	Quiz 4 due
Tue 11/26/19	Final project		
Tue 12/3/19	Final presentations		

### ***Attendance Policy, Class Expectations, and Make-Up Policy***

Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

### ***Evaluation of Grades***

<b>Assignment</b>	<b>Total Points</b>	<b>Percentage of Final Grade</b>
Online Quizzes (4)	40	40%
Project Presentation	20	20%
Project Report	40	40%
		100%

### ***Grading Policy***

The following is given as an example only.

<b>Percent</b>	<b>Grade</b>	<b>Grade Points</b>
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### ***Students Requiring Accommodations***

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***University Honesty Policy***

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Software Use***

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

### ***Campus Resources:***

#### ***Health and Wellness***

#### **U Matter, We Care:**

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

#### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

#### ***Academic Resources***

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu).  
<https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.  
<https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers.  
<https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus:** [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.