Course Syllabus

Jump to Today

Ivy Tech Community College logo.

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*This syllabus will not be provided to you in paper form.

Course Information

Course Name: AC Circuits Analysis
Course CRN: 45664
Course Code: EECT 211 S1C C1
Class Meeting Schedule: Tuesday 5:30 PM to 10:20 PM
Class Location(s): FWNSD TC1550 (Lab)

Contact Information

Instructor

Name: Andrew Bell
Phone Number: (260) 481-2288
Email (Ivy Tech mail): **abell118@ivytech.edu (mailto:abell118@ivytech.edu)**
Office/Campus Location: Tech Center TC1240R
Office Hours: Office Hours: Monday & Wednesday 9:00AM – 11:00AM
Wednesday 1:00PM – 5:00PM

Instructor's Supervisor

Name: Dr Darrel Kesler
Phone Number: (260) 480-4297
Email (Ivy Tech Email): dkesler2@ivytech.edu
Office/Campus Location: Tech Center, TC1240D
Office Hours: By appointment only

Ivy Tech Technical Support: Help Desk

Phone: 1-888-IVY-LINE (1-888-489-5463), select option 4

Student Help Center: **http://ivytech.edusupportcenter.com**   **(http://ivytech.edusupportcenter.com)**

Submit a Help Ticket: **https://helpdesk.ivytech.edu/SelfService/Create.html** **(http://helpdesk.ivytech.edu/SelfService/Create.html)**

Regional IvyLearn Technical Support

Name: Deb Ponsot

Phone Number: 260-480-2082

Email (Ivy Tech Email): **dponsot@ivytech.edu (mailto:dponsot@ivytech.edu)**

Office/Campus Location: Harshman 1722

Office Hours: 8am-5pm

Regional On-Campus Student Services

Center for Academic Excellence (CAE)

All current students can receive tutoring and academic support for free. We offer 1-on-1 tutoring by appointment and drop-in tutoring as well as workshops and review sessions. Students using the resources offered at the CAE are more likely to achieve their academic goals and on average earn a half to a full grade higher in their classes.

Phone: (260) 480-4262

Fall and Spring Semester Location/Hours:

TRIO

Academic student support if your are: a first-generation college student, low-income, or a student with disabilities. Apply at: 260-480-4197

Computer Labs

Computers with internet access and printers are available to you on the North Campus at Harshman Hall, first floor, and at Coliseum Campus, room 2308, as well as at the College library at the Coliseum campus.

ACADEMIC LABS e.g. Math Lab, Language Lab, Music Lab etc.

Disabilities Support Contact

Regional DSS: **http://ivytech.edu/dss/ (http://ivytech.edu/dss/)**

Name: Todd Nichols

Phone Number: 260-480-4110

Email (Ivy Tech Email): **wnichols3@ivytech.edu (mailto:wnichols3@ivytech.edu)**

Office/Campus Location: Harshman 1708 / Fort Wayne
Office Hours: 8am-5pm

Required Text & Materials

Title: Foundations of Electronics (C & D:Elect Flow)(w/CD)
Author: Meade
Edition: 5th
Publisher: Cengage Learning
ISBN: 9781418005375

You are responsible for maintaining your data. I strongly recommend that you backup your flash drive to your computer's hard drive. Graphing or scientific calculator, USB Flash Drive (min 4 GB) to save your work. 8 GB cost $10 - $15. Recommended brands: SanDisk, PNY, Kingston, or Memorex (not Lexar).

[Recommendations for Book Ordering (click on this link for more info)](https://ivylearn.ivytech.edu/courses/839675/assignments/syllabus)

Course Outline of Record

COLLEGEWIDE COURSE OUTLINE OF RECORD: **EECT 121 AC CIRCUIT ANALYSIS**

COURSE TITLE: AC Circuit Analysis

COURSE NUMBER: EECT 211

PREREQUISITES: EECT 121 Electronics Circuit Analysis and MATH 137 Trigonometry with Analytic Geometry

SCHOOL: Technology

PROGRAM: Electronics and Computer Technology

CREDIT HOURS: 4

CONTACT HOURS: Lecture: 3 Lab: 2

DATE OF LAST REVISION: Spring, 2014

EFFECTIVE DATE OF THIS REVISION: Fall, 2014

CATALOG DESCRIPTION: AC circuits, including the j operator, phasors, reactance, and impedance are studied. Circuit laws, network theorems, and the fundamental concepts of Fourier analysis are applied and used in the study of topics such as passive filters, IC filters, amplifiers, resonant circuits, single phase and three phase circuits. Computer aided analysis of circuits is used.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Use complex numbers, the j operator, and phasors to analyze AC electrical circuits.
2. Analyze series, parallel, and series-parallel passive and active AC circuits.
3. Analyze multi-loop, multi-source AC circuits using mesh analysis.
4. Calculate parameters associated with an amplifier's frequency response, gain bandwidth and slew rate.
5. Derive frequency response transfer functions for simple passive and active networks.
6. Apply Fourier analysis techniques to calculate the response of passive and active networks to non-sinusoidal signals.
7. Analyze and design series and parallel resonant circuits.
8. Compute real, reactive, and apparent power, and the power factor.
9. Analyze three-phase Y and delta networks.
10. Evaluate the performance of each of the circuits described above, using appropriate standard laboratory measurement procedures, and simulations.

COURSE CONTENT: Topical areas of study include

Sinusoidal waveforms

Impedance combination

Complex numbers & phasors

Mesh analysis

Series circuits

Introduction to ac power

Parallel circuits

Power factor and correction

College Policies & Support Services (click on this link to review)

Students are strongly encourage to click the link above to review standard College policies and information on academic support services.

Fort Wayne Regional Policies

Code of Student Rights & Responsibilities

Ivy Tech Community College recognizes its responsibility to support and uphold the basic freedoms and citizenship rights of all students. In the event that personal or academic misconduct occurs, the College has developed a written Code that outlines student rights and responsibilities. Resolving such situations begins

with the College upholding its responsibility to inform you of your rights as a student. Excerpts from the Code relevant to situations that may occur in the classroom can be found here **Code of Student Rights and Responsibilities Syllabus Excerpt.docx** 📄). The College encourages you to read and be familiar with these policies and procedures. This announcement serves as your notification of your student rights and responsibilities.

Smoke Free

Since 2009, Ivy Tech Northeast has been a **smoke-free campus (https://www.ivytech.edu/northeast/breathe/)**. Per the College's Breathe Easy policy,

Smoking, including the use of an e-cigarette, shall not be permitted in any enclosed space and is also prohibited outdoors on all college campus property, including parking lots. This policy applies to all students, faculty, staff and visitors.

Ivy Tech—Northeast is committed to providing a healthy, comfortable and productive environment for the students, faculty and staff of this campus. The use or sale of any tobacco product is prohibited on college-owned, operated, or leased property or vehicles at any time. The policy applied to all Ivy Tech– Northeast facilities and grounds, regardless of location. Smoking, including the use of an e-cigarette, shall not be permitted in any enclosed space and is also prohibited outdoors on all college campus property, including parking lots. This policy applies to all students, faculty, staff and visitors. Tickets and fines will be issued to violators.

IvyTech Going Greener

Ivy Tech Community College– is committed to the development and implementation of a comprehensive sustainability plan. We're emphasizing our responsibility to go green. To that end, we are asking students, faculty, and staff to actively participate in energy conservation measures and proper recycling on campus. The recycling bins located in classrooms and offices are for paper and paper products only. Ivy Tech participates in single-stream recycling for other items. All aluminum, glass, and plastic beverage containers can co-mingle in the same recycling bins located in the hallways. Please remember to empty the liquid from your containers before depositing them in the bins. Any materials that cannot be recycled should be placed in garbage cans. It is also important to turn off lights and computers when leaving a room. Together, we can make an impact on conserving our limited resources. Remember to reduce, reuse, and recycle!

Ivy Tech Community College is committed to a comprehensive sustainability plan. We ask everyone to participate in energy conservation and recycling. The recycling bins in classrooms and offices are for single-stream recycling (clean dry paper/cardboard, plastic containers, aluminum & tin/steel cans and glass). Empty the liquid from all containers before depositing. Materials that cannot be recycled should be placed in garbage cans. Turn off lights when leaving a room.

ATMAE – Requirements

Students wishing to graduate from a School of Applied Science and Engineering or the School of

Technology, from Ivy Tech Community College Northeast must complete at least 12 semester hours of Management and/or Technical training. This requirement is concurrent with the college

requirement that each student must complete 15 semester hours at this institution. Students transferring to Ivy Tech Community College Northeast and entering into the School of Applied Science and Engineering or the School of Technology must also meet the 12 semester hours of Management and/or Technical training. Credits considered for transfer may be from another Ivy Tech ATMAE accredited campus or obtained from an ATMAE accredited institution.

 Right of Revision

The college reserves the right to change any statements, policies or scheduling as necessary. Students will be informed promptly of any and all changes. Your instructor also reserves the right to make changes to the syllabus, including the assignment schedule (dates and content).

Course Policies & Procedures

Instructional Method

Method of Instruction

The format of the class includes: Lectures, Labs and Team Projects. Lectures will be derived from the Text Book and additional information that the instructor may feel is pertinent. The weekly PowerPoint slides will be posted on IvyLearn.

Labs will be conducted at Ivy Tech either in the class room or an appropriate lab. Each student will create and maintain a "Lab Book". The Lab Book will capture all of the lab results, calculations, and observations for all of the labs completed during the semester. Lab Books will be turned-in prior to the end of the class.

Team Projects will require some contact with other team members during the class and between classes. Each Team will be responsible to present to the class Team Presentations as defined by the instructor.

Grades

All grades will be maintained in IvyLearn's online grade book. Students are responsible for tracking their progress by referring to the online grade book. Students can generally expect to receive grades and feedback within seven days of the assignment due date. If exceptions occur, the instructor may notify students of changes to this expectation.

Due Dates & Deadlines

The Syllabus and Calendar are two important tools to help students understand the course, student and instructor expectations, and deadlines. Both tools can be found in IvyLearn. The Calendar can be accessed

from the main navigation area on the left-hand side of IvyLearn.

Students are required to submit work on time for a chance to receive credit. Deadlines for each week/assignment are summarized on the calendar. Students should check the calendar frequently for deadlines and to be aware of what to expect next. Deadlines are listed in Eastern Time and are subject to change.

Students are responsible for timely assignment submission. Should a computer system or network go down, students must still turn in work in a timely manner. Don't wait until the last minute. Plan ahead by seeking alternative means for submitting work before it is due. Local libraries and all Ivy Tech Community College campuses can serve as alternative resources. Contact the closest/most convenient campus or other public lab for schedules and Internet availability. Not having access to the required software on a home or work computer is **not** a legitimate excuse for turning in homework late.

Make-Up Policy

A missed test or other graded material may be made-up only at the discretion of the instructor. If you miss a class you will need to contact the instructor via email or phone. There is no make-up for quizzes, labs, homework or exams without the instructor's approval. You are responsible to provide all group project team information to your team prior to any presentation.

Attendance Policy – Don't Get Dropped from Class!

Ivy Tech performs administrative drops for students who do not "attend" class early in the semester. ***Students need to complete an assignment (***which may include, but are not limited to, such things as attending a live or synchronous session; posting in a graded discussion board, blog or wiki; or submitting a written assignment or taking a quiz) ***prior to NW deadline listed below in order to avoid being dropped for non-attendance.*** Posting any items not related to the graded assignments will be reviewed but may be disqualified for attendance purposes.

Attendance Drop Deadline: **2/2/2018 11:59PM** – Eastern Time.

Please talk to be before you withdraw.

Am I Required to Come to Campus for this Course?

Yes, students are required to come to campus and some of the course assignments will be provided "online" since this is a hybrid course.

Last Day to Withdraw

If a student wishes to withdraw from this course, students are responsible for completing an official withdrawal form with the registrar. Your local registrar contact information can be looked up here:

http://www.ivytech.edu/registrar/ (http://www.ivytech.edu/registrar/) .

The last day to withdraw from this course is **4/13/2018 11:59PM**

Please talk to be before you withdraw.

Course Communication

Online Communication Etiquette

Students are expected to uphold their responsibilities in terms of appropriate and professional communication with faculty and peers. Please review the 'Students Rights and Responsibilities' section of the student handbook (located within Campus Connect) and review common netiquette (Internet etiquette) practices, like those found at: **https://www.ivytech.edu/online/11570.html (https://www.ivytech.edu/online/11570.html)**

Instructor Commitment

Ivy Tech Community College instructors are committed to responding to students' written inquiries sent via the conversations tool in IvyLearn (instructions below), within 36 hours, including weekends. Students can contact their local Online Technologies Support with questions (**http://ivytech.edu/online/contacts.html (http://ivytech.edu/online/contacts.html)**).

The instructor commitment to responding to communication is covered in ASOM 7.5. Only online courses have the 36 hour requirement, it is not a requirement in face-to-face courses. This is clear in the revised ASOM 7.5.1 and 7.5.2. Please update this section, as appropriate.

Conversations

All students must use the conversations feature of IvyLearn for course-related communications. Using conversations, students can send and receive messages from within IvyLearn. Conversations can *only* be sent and received from within IvyLearn. Please check Conversations frequently.

For information on how to access Conversations (send and receive) **click this link to open the Canvas Guides (https://community.canvaslms.com/docs/DOC-2666) (https://community.canvaslms.com/docs/DOC-2666)** . The Canvas Guides will provide you with the necessary information to get started with conversations within IvyLearn.

Notifications

IvyLearn has a robust notification system through which students can receive course notifications for many course activities and events such as new announcements, due dates, and grade updates. Students can receive those notifications via many different channels including text messages and are highly encouraged to customize their notifications. To learn more about notifications and how to setup and customize notifications, please review the guide here: **https://guides.instructure.com/m/4152/l/73162-how-do-i-set-my-notification-preferences** **(https://guides.instructure.com/m/4152/l/73162-how-do-i-set-my-notification-preferences)** .

Additional Communication Options

Below are several additional optional ways to communicate with your instructor:

GoToMeeting – as needed and will be provided. …

Phone – 260-481-2288

Email – **abell118@ivytech.edu (mailto:abell118@ivytech.edu)** …

Assignments & Grading

How is my grade calculated?

[For each kind of assignment, create a section below and write a short description – sample below for format only – not expected verbiage.]

Discussion Boards

There will be ## discussions for this class and are listed on the calendar. Each student will be responsible for responding to the prompt for that discussion and then replying to the specified number of other students as stated in the discussions rubric in the Resources area of the course. No late discussions will be accepted.

Quizzes

There will be ## quizzes throughout the course that cover the reading material for that week. Quizzes can include multiple choice, true/false, short answer, essay, file response, and other types of questions. Each student will have one attempt and some quizzes will require grading from your instructor (such as in the case of essay, short answer, file response, and other types of questions that require instructor grading). Students should allow themselves ample time to complete each quiz as they will get only one attempt.

Last Revised on Tuesday, March 7, 2017 by [Faculty Name].

Course Summary:

Course summary will autofill as you attach due dates to assignments.

Course Summary:

Date	Details