Computer & Information Technology (CIT)

2023-24 CODO/Dual Degree Presentation

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Computer & Information Technology (CIT)

The **Department of Computer and Information Technology** program educates professional practitioners and managers of information technology, accelerates information technology transfer to business and industry, and develops innovations in the application of emerging information technology through learning, engagement, and discovery by its faculty and students.

Computer & Information Technology offers a B.S. in Computer & Information Technology with the following major options:

- Computer & Information Technology (CNIT)
- Cybersecurity (CSEC) Available beginning Fall 2017
- Data Analytics, Technologies and Applications (DATA) Available beginning Fall 2021
- Computer Infrastructure and Networking Technology (INET) Effective Fall 2021 (Network Engineering Technology (NENT) Major name prior to Fall 2021)
- Computing Systems Analysis and Design (CSAD) Effective Fall 2023 (Systems Analysis & Design (SAAD) Major name prior to Fall 2023)

Characteristics of Successful CIT Students

Successful CIT Students are:

- Inquisitive
- Self motivated
- Organized - Capable of planning and meeting deadlines
- Problem solvers
- Willing to work hard
- Team oriented - Significant out of class time is required for homework, projects, and laboratory activities

Major Plan of Study Catalog Term

A student's catalog term, typically the semester you started at Purdue, will be used to determine the Major Change and major requirements criteria that applies to you.

Your default catalog term is the term that you started at Purdue, however, students may choose to pursue a major in a later catalog term if those degree requirements are preferred, or to pursue a new major that was added after you started at Purdue.

- DATA Major is Effective Fall 2021
- INET Major is Effective Fall 2021 - Previously NENT Network Engineering Technology
- CSAD Major is Effective Fall 2023 - Previously SAAD Systems Analysis and Design
- CSEC Major has significant changes beginning Fall 2021 and Fall 2022
  If your catalog term is Fall 2020 or earlier, it is highly recommended that you select a later catalog term to review the updated course requirements for the CSEC major

Majors

Description Highlights to Follow

Computer & Information Technology (General) Major - CNIT

Computer and information technology courses provide students with strong technical skills, a thorough understanding of business needs, and the ability to communicate effectively with customers, peers, and industry leaders.

- Most flexible major
- Allows for 15 credits of upper-division CNIT or CGT courses of student's choice (pre-requisites must be met); up to 6 credits of non-CNIT computing coursework may be considered for approval
- Requires a non-computing minor or certificate (15 credits)
  - These credits fulfill Interdisciplinary Selectives
  - 15 discipline specific credits from your current major may be considered in lieu of a minor
- Includes one Free Elective

- **Degree Requirements:**
  - **2023-24**: https://catalog.purdue.edu/preview_program.php?catoid=16&poid=25180&returnto=20098

Computing Infrastructure and Network Engineering Technology Major- INET

Effective Fall 2021

Replaces: *Network Engineering Technology – NENT – Available until Summer 2021*

The world operates on the back of computers – networks of computers. Whether it is wired or wireless, information must be able to travel the network securely, efficiently and accurately. The network engineering technology major provides the necessary background about hardware and software infrastructure to solve networking problems.

- Courses in UNIX Administration
- Electronic Systems
- Advanced Networking

- **Degree Requirements:**

  2023-24:

  https://catalog.purdue.edu/preview_program.php?catoid=16&poid=25657&returnto=20098

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Computing Systems Analysis and Design - CSAD

Effective Fall 2023

Replaces: Systems Analysis & Design Major - SAAD Available until Summer 2023

Study how organizations use computer systems and procedures and then design information systems solutions to help them operate more efficiently and effectively. You will combine business processes and practices with programming, applications and databases. In the workforce, systems professionals work in a variety of industries and with people from a variety of professions.

- Requires a non-computing minor (15 credits)
  - These credits fulfill Interdisciplinary Selectives
  - 15 discipline specific credits from your current major may be considered in lieu of a minor

- Includes Advanced Systems Design & Integration, Quality Management in IT, and more as selective options

- **Degree Requirements:**
  - **2023-24:** https://catalog.purdue.edu/preview_program.php?catoid=16&poid=27561&returnto=20098

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Cybersecurity Major - CSEC

Keeping data secure is an important goal of any good IT system. Once a system has been breached, personal, financial or classified data becomes vulnerable to exploitation. When you major in cybersecurity at Purdue University, you will learn the skills to create and maintain system integrity as well as ways to track down hackers who aim to breach that security.

- Courses in Cryptography, Cyber Forensics, Incident Response Management, Electronic Systems, & Criminology
- Cybersecurity selective options: Homeland Security, Advanced coding security, & Malware forensics and many more
- The most prescriptive major
- **Significant changes to the CSEC plan have been implemented due to changes requested by industry and accreditation. Students are encouraged to move to the most recent catalog term as some courses are being phased out and will not be available.**

- **Degree Requirements:**
  2023-24: https://catalog.purdue.edu/preview_program.php?catoid=16&poid=25633&returnto=20098

Data Analytics, Technologies and Applications Major - DATA

Our digital lives consist of data and information. Industry and other organizations need to use that data and information to strengthen their decision-making processes, which means that they need information technology professionals who can enable, support and use data analytics and applications.

- Develop strong foundations in statistical and machine learning techniques. Apply analytics approaches, techniques and tools to solve problems.
- Evaluate such approaches, techniques and tools for effective use.
- Cognate Application Focus area (18 credits) by completing the Statistics minor and 9 credits in the Application focus areas of the Applications in Data Science Certificate **OR** 18 non-CNIT credits from the Application focus area in the Applications in Data Science Certificate.
- Includes one Free Elective

- **Degree Requirements**:

  2023-24:

  https://catalog.purdue.edu/preview_program.php?catoid=16&poid=26473&returnto=20098

Other Major Requirements

Highlights to Follow

Interdisciplinary Selectives

6-15 Credit Hours required (depending on Major)

May be fulfilled or partially fulfilled by using one of the following:

- Any University recognized **non-computing** minor or certificate: See https://catalog.purdue.edu/ Undergraduate minors link, Undergraduate Certificate link

  Computing related minors such as CS, ECE, CGT minors, are not available as interdisciplinary selectives (exception the Product Lifecycle Management minor is allowed)
- Approved set of related courses to which IT can be applied. CIT Advisor will provide the process to student.
- Non-computing major coursework from previous major

TIP:

- *Research the minor requirements for your current major & consider using it to fulfill your Interdisciplinary Selectives*

IT Professional Experience Requirement

Effective Fall 2016

Must be completed as a Purdue Student and prior to graduation.
(no additional credits awarded)

May be fulfilled by one of the following:

- Professional IT internship (six week minimum duration)
- 240 hours of IT employment
- 240 hours of documented volunteer IT work
- Service Learning Course (EPCS*, CNIT 39000, or Equivalent) with responsibility for an IT component (3 credit hours minimum)
- Data Mine Corporate Partners participation (3 credit hours minimum). (TDM 11100, 11200, 21100, 21200, 31100, 31200, 41100, 41200)

- *participation in EPCS requires CIT faculty approval

CODO/DUAL DEGREE

Requirements to Follow

CODO/Dual Degree Requirements

Students on academic probation may not CODO into the CIT program.

There are two levels that students **may** qualify for CODO application:

- 3.25 cumulative GPA and completion of all courses listed below with a C- or above or equivalent will be accepted on **space available basis**.
- 3.24- 3.00 cumulative GPA with completion of all courses listed below with a C- or above or equivalent will be considered for acceptance on **space available basis**.

GPA calculators are available in myPurdue Plan as well as the following websites:
https://www.purdue.edu/asc/resources/gpa-calc.html
https://business.purdue.edu/undergraduate/current-students/gpa-calculator.php

Course Requirements:

- **Category I: CNIT Course Requirement – 3 credits**

  Students with start date of Fall 21 or earlier: All majors

  CNIT 18000 or CNIT 17600 (must be taken or tested out of at PWL campus or Polytechnic Statewide sites: Anderson, Columbus or Kokomo)

  Students with start date of Fall 22 or later:

  CNIT, DATA, INET and CSAD majors: CNIT 18000 or CNIT 17600
  CSEC, CSEC/INET DUAL majors: CNIT 18200 or CNIT 17600

- **Category II: Composition or Humanities Selective or Introduction to Oral Communication – 3 credits**

  Composition Selective: ENGL 10600, ENGL 10800, ENGL 10100, HONR 19903-Interdisciplinary Approaches in Writing or SCLA 10100 (or ENGL 11000 (Humanities Selective) (AP, IB and transfer credit accepted) **OR**

  Oral Communications Selective: COM 11400, COM 20400, COM 21700 or SCLA 10200 **(AP, IB and transfer credit accepted)**

- **Category III: Calculus – 3 credits**

  MA 16010 or equivalent (MA 16100, MA 16500) **(AP, IB and transfer credit accepted)**

CIT CODO/Dual Degree Application Process

To be considered for a CODO in to the CIT program, complete the following:

- Complete the online CODO presentation
- Submit the CIT CODO In Questionnaire. Students will then be contacted by CIT Advising with next steps and added to a campaign in which they will be allowed to schedule an optional meeting via Boiler Connect.

- Students who have completed or are enrolled in appropriate courses, meet the minimum GPA at the end of the semester, and submit the online CODO application with current advisor by the deadline will be considered on a space-available basis after grades post for the term.
- Students are encouraged to submit the CIT CODO In Questionnaire while pursing space in the required coursework. This allows you a higher consideration for course space and a link to CIT Advising meetings.

CNIT Course Access and Request Process

Due to increased enrollment in Computer and Information Technology undergraduate programs, availability of courses designed for CIT majors is limited and cannot be guaranteed.

- CNIT course requests for 10000 and 20000 level courses will be considered on a space available basis. Submit your CNIT course requests along with alternatives during your Registration meetings for batch scheduling. If space is available, you will receive a seat, if not, during open registration you will need to resubmit your course request to be considered.
- All course requests cannot be accommodated; therefore, the Waitlist function will be available for all CNIT courses.
- Remaining course space allocation will be prioritized for students with a complete CODO Application and by GPA.
- Students should consider **summer enrollment** for courses such as CNIT 17600, 18000 and 18200.

CIT Resources

to Follow

CIT Resources

CIT Website

https://polytechnic.purdue.edu/departments/computer-and-information-technology

CIT CODO/Dual Degree Website

https://polytechnic.purdue.edu/degrees/computer-and-information-technology/advising/codo

CIT New Student Information

https://polytechnic.purdue.edu/degrees/computer-and-information-technology/advising/All-Aboard-Purdue-CIT-2023-2024

CIT Advising/Registration

https://polytechnic.purdue.edu/degrees/computer-and-information-technology/advising/registration

- Semester Course Offerings and Pre-Requisite Lists
- Independent Study Forms (may earn up to 6 credit hours)
- Registration Meeting Presentations
- Critical Path Documents
- Additional Resources

CIT Job Placement Resources & CIT Student Orgs

Student Employment (Federal Work Study and Student Employment Opportunities)
https://www.purdue.edu/studentemployment/site/

Purdue Center for Career Opportunities: https://www.cco.purdue.edu

CIT Affiliated On Campus Career Fairs

Purdue Computing Career Fair
Typically held in early September

Purdue Polytechnic Career Fair
Typically held in early February

Student Organizations

Purdue CIT Student Council
https://boilerlink.purdue.edu/organization/citcouncil
Association of Information Technology Professionals (AITP)
http://purdueaitp.com/
Women in Cybersecurity
https://wicyspurdue.wordpress.com/
Women in Technology
https://boilerlink.purdue.edu/organization/womenintechnology
Cyber Forensics Club
https://www.boilerlink.purdue.edu/organization/pcf
Minority Technology Association (MTA)
http://boilerlink.purdue.edu/organization/minoritytechnologyassociation

Placement After Graduation

See Career Placement rates and data here:
https://www.cco.purdue.edu/
https://www.cco.purdue.edu/data

Potential Job Titles:

- Application developer
- Business analyst
- Cyber Risk Consultant
- Data analyst
- Database administrator
- IT Consultant
- Network Administrator
- Network Consulting Engineer
- Security Specialist
- Software Engineer
- Systems Analyst
- Technical Support Analyst
- Web Developer

Some Employers:

- Apple
- CIA
- Cisco
- Cummins
- Deloitte
- DoD
- Eli Lilly
- FBI
- Genesys (Interactive Intelligence)
- Intel
- Google
- John Deere
- Microsoft
- NSA
- Salesforce
- State of Indiana
- USAA
- US Secret Service

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What's Next

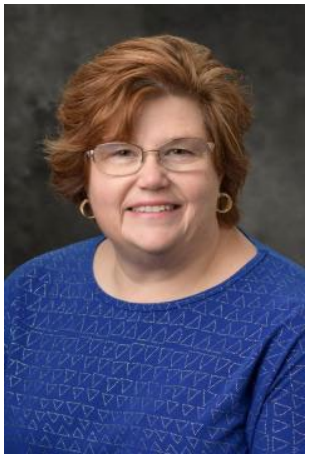
Next Steps, CIT Advisors

What's Next

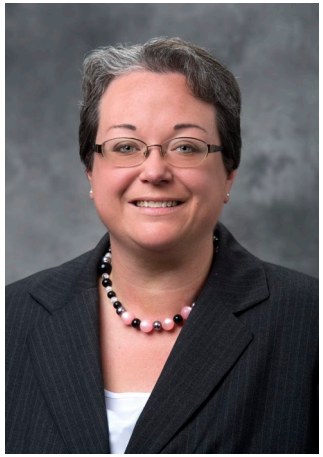
We hope you find this overview helpful in your exploration of a major in the CIT Program. Be sure to submit the CODO in Questionnaire so we can best advise you.

- Once grades are released at the end of the semester, applications will be reviewed within the week and all applicants will be notified.
- If **accepted** for CODO/Dual Degree, you will be notified by e-mail and added to a Boiler Connect campaign with your CIT Advisor.
- If not accepted at the end of the semester, you will receive an email from CIT-Advising@purdue.edu with the reasons. You will also be asked to if you would like to be considered in the next semester. You will need to respond to this message to have your current application carry over.
- Review Registration Meeting Presentation for semester updates: https://polytechnic.purdue.edu/degrees/computer-and-information-technology/advising/registration

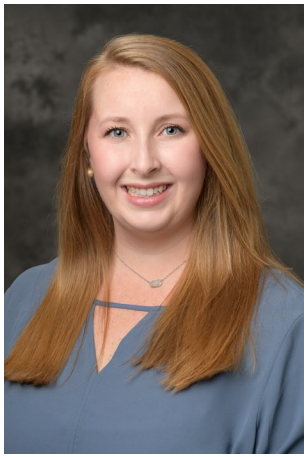
CIT Advisors



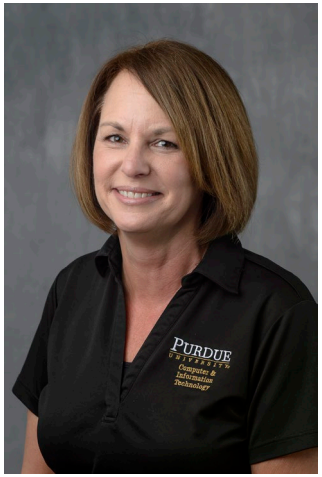
Melody Carducci



Lisa Klein



Lauren Lucas



Angie Murphy

TBD

CIT Advising Contact Information:
CIT-advising@purdue.edu

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