

Computer & Information Technology (CIT)
West Lafayette
2024-25
CODO/Dual Degree Information

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



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CODO/Dual Degree

The majors in the Department of Computer and Information Technology are **space restricted** programs. There is an application deadline of 5 pm the Thursday before Finals week in the Fall, Spring, and Summer semesters.

- The following slides contain detailed information about each major, requirements and steps required to be considered for CODO/Dual Degree
- You must complete the questionnaire linked in this presentation for each semester of consideration
- Meeting the minimum GPA does not guarantee approval as all majors are available on a **SPACE AVAILABLE BASIS ONLY** after a holistic review.
- Incomplete (pending transfer credit, etc.) and late applications will **not** be considered



Computer & Information Technology Department (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.

As of Fall 2024, CIT offers three **Bachelor of Science Degree Programs**:

Computer and Information Technology B.S. (PICIT-BS) Program with majors in:

- **Computer & Information Technology (CNIT)**
- **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)
- **Cybersecurity (CSEC)**
Available Fall 2017 –Summer 2023 (updated to PICSEC-BS program F23)
- **Data Analytics, Technologies and Applications (DATA)**
Available Fall 2021 – Summer 2024(updated to PIDATA-BS program F24)

Cybersecurity B.S. (PICSEC-BS) Program with major in:

- Cybersecurity (CSEC) Available to **PICSEC-BS** – Effective Fall 2023

Data Analytics, Technology and Applications B.S. (PIDATA-BS) Program with major in:

- Data Analytics, Technologies and Applications (DATA)
Available beginning Fall 2021 -changed to **PIDATA-BS** – Effective Fall 2024

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
- Excellent communicators
- 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 is typically the semester you started at Purdue and can be used to determine the Major Change and major requirements criteria that apply 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 recommended by an advisor due to course phase outs. You may wish to pursue a new major that was added after you started at Purdue which will also require a catalog term change.

- Data Analytics, Technologies and Applications (DATA) Major is Effective as of Fall 2021
- Computer Infrastructure and Networking Technology (INET) Major is Effective as of Fall 2021 – (Previously (NENT) Network Engineering Technology)

For INET, if your catalog term is Fall 2021 or earlier, it is highly recommended that you select a later catalog term as many courses have been updated.

- Computing Systems Analysis and Design (CSAD) Major is Effective as of Fall 2023 – (Previously (SAAD) Systems Analysis and Design)
- Cybersecurity (CSEC) Major is Effective as of Fall 2017 and has significant changes beginning Fall 2021 and Fall 2022

For CSEC, if your catalog term is Fall 2020 or earlier, it is highly recommended that you select a later catalog term as many courses have been updated.

- To see various options go to <https://catalog.purdue.edu/> and choose the year in the drop-down box in the upper right of the website for the correct year.

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 (Information Technology Selectives) of student's choice (pre-requisites must be met); up to 6 credits of non-CNIT computing coursework may be considered for approval.
- Allows for 15 credits of non-computing Interdisciplinary coursework selectives which can be fulfilled in the following ways:
 1. Pursuing a non-computing minor or certificate
 2. Non-computing courses from a double major or previous major
 3. A faculty defined set of courses; advisors will provide further information
- Includes one Free Elective (3 credits)

2024-2025 Purdue Catalog Requirements:

https://catalog.purdue.edu/preview_program.php?catoid=17&poid=29780&returnto=22229

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.

- Allows for 15 credits of non-computing interdisciplinary coursework which can be fulfilled in the following ways:
 1. Pursuing a non-computing minor or certificate
 2. Non-computing courses from a double major or previous major
 3. A faculty defined set of courses; advisors will provide further information

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

2024-2025 Purdue Catalog Requirements:

https://catalog.purdue.edu/preview_program.php?catoid=17&poid=31322&returnto=22229



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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
- Allows for 12 credits toward a non-computing interdisciplinary coursework which can be fulfilled in the following ways:
 1. Pursuing all or part of a non-computing minor or certificate
 2. Non-computing courses from a double major or previous major
 3. A faculty defined set of courses; advisors will provide further information

2024-2025 Purdue Catalog Requirements:

https://catalog.purdue.edu/preview_program.php?catoid=17&poid=30255&returnto=22229

Cybersecurity Program: 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.**
- Allows for 9 credits of non-computing interdisciplinary coursework which can be fulfilled in the following ways:
 1. Choosing courses from a predefined list
 2. Pursuing a non-computing minor or certificate
 3. Non-computing courses from a double major or previous major
 4. A faculty defined set of courses; advisors will provide further information

2024-2025 Purdue Catalog Requirements:

https://catalog.purdue.edu/preview_program.php?catoid=17&poid=31984&returnto=22229



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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. The Applications in Data Science Certificate website provides more information as well as including any courses approved after the Purdue catalog publication.
- Includes one Free Elective (3 credits)

2024-2025 Purdue Catalog Requirements:

https://catalog.purdue.edu/preview_program.php?catoid=17&poid=31046&returnto=22229



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Advising Worksheets, Policies and Guidelines and Course Exceptions

Description Highlights to Follow

CIT Orientation Information

<https://polytechnic.purdue.edu/degrees/computer-and-information-technology/advising/all-aboard-purdue-2024-2025>

All Aboard Purdue (2024-2025)

- [Summer/Fall 2024/Spring 2025 CIT Purdue All Aboard Presentation](#)
- Advising Worksheets (downloadable Excel Files): [CNIT](#) | [CSAD](#) | [CSEC](#) | [DATA](#) | [INET](#)
- [CIT Policies & Guidelines](#) ***Review for Current Policies***
- [Course Drop/Add Refund & Deadline Calendars](#)
- [Advanced Placement Credit List](#)
- [Computer Recommendations](#)

CIT Approved Course Exceptions

- CIT Will Accept Undistributed Credits as outlined here:
https://www.purdue.edu/registrar/currentStudents/students/credit_evaluation.html

See Section: The following courses are also undistributed, but they have been reviewed by the University Core Curriculum Committee to meet a foundational outcome in Purdue's university core. For Indiana residents, these courses also meet outcomes in the Indiana College Core (ICC) among the state institutions.

Where a course could meet more than one requirement, CIT will accept the credits toward one degree requirement

- CIT Will Accept the following Credits toward degree requirements

- **CNIT 15501**

CS 15800
CS 15900
CS 17700
CS 18000

- **MA 16010**

Statistics Selective: STAT 30301, STAT 35000 for CNIT, CSAD, CSEC, INET

MA 16100
MA 16500

Multiple others from Regional Campuses and the Statewide Core – If on statewide transfer equivalency guide – we can map – no extra permissions needed <https://transferin.net/earned-credits/core-transfer-library/>

- **MA 16020**

MA 16200
MA 16600

Multiple others from Regional Campuses and the Statewide Core – If on statewide transfer equivalency guide – we can map – no extra permissions needed <https://transferin.net/earned-credits/core-transfer-library/>

- **TECH 12000: ENGR 13100 + ENGR 13200**



CIT Approved Course Exceptions Continued

- CIT Will Accept the following Credits toward degree requirements
- **Intro to Written Composition**
- The following will meet the prerequisite for Professional Writing Selectives in conjunction with completion of TECH 12000

Intro to Written Composition:

ENGL 10100
ENGL 10400
ENGL W131
ENGL 1XUWC*
1XILW*

1XHUU* – Written Composition or Humanities

Multiple others from Regional Campuses and as listed on UCC Written Communications (WC):

<https://www.purdue.edu/senate/committees/standing-committees/educational/curr/courses.php>

Intro to Oral Communication

COM 21700
COM 20400
COM 1XUOC*
EDPS 31500

Multiple others from Regional Campuses **and** all options listed on UCC Oral Communications (OC):

<https://www.purdue.edu/senate/committees/standing-committees/educational/curr/courses.php>

- **Behavioral/Social Sciences in addition to UCC Human Cultures: Behavioral Social Sciences (BSS):**
 - Courses with the following code: 1XBSS*
 - Courses with the following code 1XBHS* (either Humanities or BSS)
 - Courses with the following code: 1XBIL*
 - Courses with the following code: 1XBST*



CIT Approved Course Exceptions Continued

- CIT Will Accept the following Credits toward degree requirements

- **Humanities in addition to UCC Human Cultures: Humanities(HUM):**
 - Courses with the following code: 1XBIL*
 - Courses with the following code: 1XHST*
 - 1XHUW – Written Composition or Humanities

- **Non-Lab Science (If student reports having a lab section with class, can be moved to Lab Science)**
 - Courses with the following code: 1XSCI*
 - Courses with the following code: 1XSTT*

- *https://www.purdue.edu/registrar/currentStudents/students/credit_evaluation.htm

CIT will also accept courses meeting requirements from the Indiana Core Transfer Library:

<https://transferin.net/transfer-resources/transfer-databases/core-transfer-library/> Please note: the Purdue University Core Curriculum requirements must be met.

- E.G. ECON, PRO SPEAKING, ACCOUNTING, CALC I (IF ALSO ON UCC); CALC II – not required for UCC

Interdisciplinary Selective Considerations

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/> Programs Lists
 - Computing related minors such as CS, CNIT, ECE and CGT minors, are not available as interdisciplinary selectives (exception the CGT 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*

Other Major Requirements

Highlights to Follow



IT Professional Experience Requirement

Effective Fall 2016

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

May be fulfilled by one of the following:

- Six-week (at 40 hours a week) minimum duration OR 240 hours of IT employment OR 240 hours of documented volunteer IT work 240 hours of IT employment
- 240 hours of documented volunteer IT work
- Service-Learning Course: project must be preapproved by CIT Faculty prior to completion: (EPCS: Engineering Projects in Community Service, TDM: The Data Mine, OR VIP- Vertically Integrated Projects, or Equivalent) with responsibility for an IT component (3 credit hours minimum) – this option does not require an Employer submission. Grade of C- or Better required (Data Mine Corporate Partners participation (3 credit hours minimum). (TDM 11100, 11200, 21100, 21200, 31100, 31200, 41100, 41200)
- *participation in EPCS and VIP require a total of 3 credits **and** CIT faculty approval
- Course options do not require an Employer verification submission. Grade of C- or Better required
- All students are required to complete an assignment of a written paper describing the experience and a submission of Employment Verification for work experience

CODO/DUAL DEGREE

Requirements to Follow



CODO/Dual Degree Course Requirements

Course Requirements: https://catalog.purdue.edu/preview_program.php?catoid=17&poid=30788

To be considered, a student must: complete 3 courses (9 credits minimum): one course from each category

Minimum 3.0 Cumulative GPA or better AND C- or better or equivalent as noted in each category.

Category I - Credit by Exam accepted but not recommended for the CNIT course requirement; completing a course through the program helps students in making the decision to CODO

CNIT 17600 - Information Technology Architectures Credits: 3.00 or

CNIT 18000 - Introduction To Systems Development Credits: 3.00 or

CNIT 18200 - System And Organizational Security Credits: 3.00

Notes:

Must be taken at Purdue West Lafayette or Polytechnic Statewide sites: Anderson, Columbus or Kokomo. CNIT 17600 or CNIT 18200 recommended for students interested in Cybersecurity.

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 - AP Credit, Transfer Credit & Credit by Exam accepted

ENGL 10600 - First Year Composition With Conferences Credits: 4.00 WC or

ENGL 10800 - First Year Composition Credits: 3.00 WC or

SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity Credits: 3.00 WC or

SCLA 11000 - American Language And Culture For International Students I Credits: 3.00 or

HONR 19903 - Interdisciplinary Approaches In Writing Credits: 3.00 WC or

COM 20400 - Critical Perspectives On Communication Credits: 3.00 WC or

COM 11400 - Fundamentals Of Speech Communication Credits: 3.00 OC or

COM 1XUOC – Credits: 3.0 or

SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World Credits: 3.00 OC or

COM 21700 - Science Writing And Presentation Credits: 3.00

Category III - AP Credit, Transfer Credit & Credit by Exam accepted

MA 16010 - Applied Calculus I Credits: 3.00 or

MA 16100 - Plane Analytic Geometry And Calculus I Credits: 5.00 or

MA 16500 - Analytic Geometry And Calculus I Credits: 4.00

Category III - AP Credit, Transfer Credit & Credit by Exam accepted

MA 16010 - Applied Calculus I Credits: 3.00 or

MA 16100 - Plane Analytic Geometry And Calculus I Credits: 5.00 or

MA 16500 - Analytic Geometry And Calculus I Credits: 4.00



CIT CODO/Dual Degree Application Process

To be considered for a CODO/Dual Degree into a CIT program, complete the following:

- Complete the online CODO/Dual Degree presentation
- Submit the [CIT CODO/Dual Degree 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/Dual Degree application (CCR*) with current advisor by the deadline will be considered on a space-available basis after grades post for the term.
*CCR not required for Polytechnic Students; the Questionnaire will suffice.
- Students will be required to submit the CIT CODO/Dual Degree In Questionnaire for each session of CODO/Dual Degree attempt to ensure the correct major is being considering.

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 during open registration periods
- 30000 level and above courses are not available unless accepted for CODO/Dual Degree
- Review the course notes for each course
- All course requests cannot be accommodated; therefore, the Waitlist function will be available for all CNIT courses
- If space remains, students will be able to request during open registration.
- Students should consider **summer enrollment** for courses such as CNIT 15501, 17600, 18000, 24200 and 27000

CIT Resources

to Follow

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://polytechnic.purdue.edu/cit-student-council>

Polytechnic Student Council

<https://purdue.campuslabs.com/engage/organization/polytechnicstudentcouncil>

Purdue Information Technology Professionals (PITP)

<https://www.purdueitp.com/>

Women in Cybersecurity

<https://boilerlink.purdue.edu/organization/wicys>

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



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-2024-2025>

- [Summer/Fall 2024/Spring 2025 CIT Purdue All Aboard Presentation](#)
- Advising Worksheets (downloadable Excel Files): [CNIT](#) | [CSAD](#) | [CSEC](#) | [DATA](#) | [INET](#)
- [CIT Policies & Guidelines](#) ***Review for Current Policies***
- [Course Drop/Add Refund & Deadline Calendars](#)
- [Advanced Placement Credit List](#)
- [Computer Recommendations](#)

CIT Advising/Registration

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

- Test out Dates
- Registration Meeting Presentations
- Critical Path Documents
- Additional Resources

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>

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 Department. Be sure to submit the CODO/Dual Degree in Questionnaire so we can best advise you.

- Once grades are released at the end of the semester, applications will be reviewed, 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 the department with the reasons. If you would like to be considered for a future term, you will be asked to complete the questionnaire again to include updates to your plans and reasoning for being reconsidered
- Be sure to complete the Questionnaire linked on Slide 21 to have access to a CODO/Dual Degree Advising meeting campaign

CIT Contacts

CIT Advising Contact Information:

CIT-advising@purdue.edu

CIT Administration

CIT-@purdue.edu