



VIP Syllabus Spring 2025

VIP Team: **xxxxxx**

VIP 17910, 17912, 27920, 37920, 47920, 47930, 47921, 47922

<https://engineering.purdue.edu/vip/>

Course Information

- **CRN:** see <https://engineering.purdue.edu/vip/register>
- **Meeting day(s) and time and Instructional Modality**
 - **Lecture:** Hybrid (Professional Development)
 - **Lab (Team) Meeting day(s) and times:** Class meeting days/times should match the Spring 2025 schedule.
 - **Lab Meeting Location/Information:** Room information or meeting links
 - **Dates of instruction:** January 13 – May 3rd (Finals May 5-10). Note: Course will not meet on Monday, January 20th and Spring Break (March 17 – 22).
- **Course credit hours:**
 - Two credit hours: VIP 27920, 37920, 47920, 47921, 47922
 - One credit hour: VIP 17910, VIP 17912

Course Description

This course provides an opportunity for undergraduate students to engage in authentic and extended research and design projects related to active research areas of Purdue faculty members and national, international, and industry-sponsored design challenges. Students will work on interdisciplinary and vertically-integrated teams (first-year through seniors) with faculty and graduate student mentors to address these real-world research and design challenges. Students will participate in professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools.

VIP Program Personnel

| VIP Position | Name | Office | Email |
|---|---------------------|-----------|--|
| Director/PD Instructor | Dr. Carla Zoltowski | ARMS 1217 | cbz@purdue.edu |
| Assistant Director/ PD Instructor, WL | Cyndi Lynch | ARMS 1219 | clynch@purdue.edu |
| Assistant Director/ PD Instructor, Indianapolis | Dr. Steve Higbee | SL 220D | shigbee@purdue.edu |
| Senior Program Manager, WL | Dr. Andrea Tener | ARMS 1085 | atener@purdue.edu |
| Senior Program Manager, VIP/EPICS, Indianapolis | Matthew Johnson | ET 101A | john3892@purdue.edu |
| Lab Manager, VIP/Honors, WL | Rick Womack | LMBS 2277 | rwomack@purdue.edu |
| Director of Innovation Hall Maker Space, Indianapolis | Dr. Andy Tomaschke | IO 112 | atomasch@purdue.edu |

Office hours for all: Email to schedule

Emails: For WL specific questions: VIP_WL@purdue.edu; For Indianapolis specific: VIP_Indy@purdue.edu

For general VIP questions: vip@purdue.edu

VIP Team xxxx Personnel

| VIP Team xxxx Position | Name | Office | Office Hours | Email |
|---------------------------|--------|----------|---------------|--------|
| Instructor/Faculty Mentor | Name1 | Office1 | Office Hours1 | email1 |
| Instructor/Faculty Mentor | Name2 | Office2 | Office Hours2 | email2 |
| GTA/Grad Mentor | Name 3 | Office 3 | Office Hours3 | email3 |

Learning Outcomes:

Students in VIP will make progress on each of the learning outcomes listed below. A student who successfully fulfills the ECE senior design requirements will have demonstrated all of the following outcomes over the two senior design semesters:

- i. an ability to apply engineering design to create a product (e.g., device, system, process, software, etc.) that meets the specified needs of this engineering design experience with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- ii. an ability to develop and conduct experimentation, analyze and interpret data, and use engineering judgment to draw conclusions related to the development of the product of this engineering design experience.
- iii. an ability to identify, formulate, and solve complex engineering problems arising from this engineering design experience by applying principles of engineering, science, and mathematics.
- iv. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives associated with this design experience
- v. an ability to communicate effectively with a range of audiences appropriate to this design experience in both a written report and oral presentation.
- vi. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies to complete the engineering design experience associated with this course.
- vii. an ability to recognize ethical and professional responsibilities associated with this engineering design experience and make informed judgments which must consider the impact of the product of this engineering design experience in global, economic, environmental, and societal contexts.

Software Tools

The software tools will vary based on the project. However, in general, the course and teams will use the following software tools:

- Brightspace: Within Brightspace, you will have access to course announcements, schedules, assignments, grades, feedback, and course resources.
 - For Overall Course Announcements and Professional Development (PD) opportunities: Spring 2025 VIP 47920 PD – Merge (WL) or Spring 2025 VIP Indy PD – Merge (Indianapolis)
 - For lab/team: Spring 2025 VIP [47920] team – Merge
- MS Teams, WebEx, Zoom, Slack and/or other conferencing/meeting/messaging platforms
- CATME: You will use CATME to submit information used for Peer & Team Evaluations ([Link to CATME](#)).
- MS Office: Word, Excel, and PowerPoint.
- Adobe: PDF.
- Qualtrics: <https://purdue.qualtrics.com/>
- Simplicity: To register for in-person PD activities: <https://engineering-purdue-csm.simplicity.com/>
- Other for xxxx team (delete if not applicable):

Attendance Policy

Within the VIP course, you will be working in teams on a project. Your project work, both individually and as part of the team, are the most significant aspects of the course. Thus, you are expected to participate in all scheduled VIP team meetings (the lab portion of your VIP course), as well as any sub-team meetings. Meetings will be conducted via in-person or virtually on WebEx, Zoom, or other tool(s) as designated by your VIP team mentor and/or decided by you and your project team. This expectation aligns with Purdue’s academic regulations regarding attendance (see Academic Regulations: Attendance and Office of the Dean of Students: Class Absences posted in Brightspace under “University Policies and Statements.”), which states that students are expected to be present for every meeting of the classes in which they are enrolled. When conflicts or absences can be anticipated, such as for many University-sponsored activities and religious observations, you should inform the team mentors (instructors) and teammates of the situation as far in advance as possible. Furthermore, you are responsible for knowing what occurred in that meeting (typically by discussing it with other team members) and how you can contribute to the project and team until the next meeting. An excused absence does not relieve you of that responsibility.

For unanticipated or emergency absences when advance notification to is not possible, contact your team mentors (instructors) and teammates. For cases that fall under **excused absence regulations**, you or your representative should contact or go to the [Office of the Dean of Students \(ODOS\) website](#) to complete appropriate forms for instructor notification. Under academic regulations, excused absences may be granted by ODOS for cases of grief/bereavement, military service, jury duty, parenting leave, or certain types of medical care.

Grading

Your grade is based on three areas, along with seven requirements, and is assessed according to your course level and major. The grading guidelines are as follows; please note that “+” or “-” grades may be given if the assessment falls above or below, respectively, the stated guideline.

| Grade | Description |
|-------|--|
| A | Overall, the student’s accomplishments and effort, documentation, and teamwork and interactions are excellent. All of the seven (7) requirements have been satisfied. |
| B | Overall, the student’s accomplishments and effort, documentation, and teamwork and interactions are good. Six (6) of the seven (7) requirements have been satisfied. |
| C | Overall, the student’s accomplishments and effort, documentation, and teamwork and interactions are adequate. Five (5) of the seven (7) requirements have been satisfied. |
| D | Overall, the student’s accomplishments and effort, documentation, and teamwork and interactions are marginal. More than two of the seven (7) requirements are missing. |
| F | Overall, the student’s accomplishments and effort, documentation, and teamwork and interactions are unacceptable. More than three of the seven (7) requirements are missing. |

Accomplishments and effort:

- ___ Quantity of project accomplishments
- ___ Quality of project accomplishments
- ___ Initiative
- ___ Work ethic
- ___ Ability to overcome project setbacks
- ___ Learning needed for the project
- ___ Focuses effort on achieving goals
- ___ Manages time and tasks well

___ Overall

Documentation:

- ___ Individual documentation (quality/quantity)
- ___ Contributions to team documentation (quality/quantity)
- ___ Contributions to team poster/presentations
- ___ Use of appropriate tools (e.g., Git)

___ Overall

Teamwork and Interactions:

- | | |
|--|---|
| <input type="checkbox"/> Participates fully in team (lab) meetings | <input type="checkbox"/> Communicates clearly. Shares information with teammates |
| <input type="checkbox"/> Participates fully in sub-team meetings | <input type="checkbox"/> Respects and responds to feedback from teammates |
| <input type="checkbox"/> Contributes fair share of team’s work with acceptable quality | <input type="checkbox"/> As appropriate, involves and assists others in efforts |
| <input type="checkbox"/> Keeps commitments and completes assignments on time | <input type="checkbox"/> Demonstrates leadership and/or project management skills |
| <input type="checkbox"/> Listens to teammates and respects their contributions | <input type="checkbox"/> Overall |

Seven Requirements and Due Dates

As part of the assessment of the above, each student is required to:

1. Document individual contributions to the project and team in format as required by your project mentor(s).
2. Contribute as appropriate to project documentation, presentations, publications, and/or poster
3. Submit Professional Development plan by Friday, January 31st at 11:59 pm and complete PD activities, including the Welcome to VIP lecture.
4. Complete mid-semester Individual Performance Evaluation (IPE) by Friday February 28th at 11:59 pm in Brightspace.
5. Complete Final Individual Performance Evaluation (IPE) & PD Reflection (PDR) by Friday, May 2nd at 11:59 pm in Brightspace.
6. Complete mid-semester and final peer evaluation of team members in CATME (mid-semester due Friday, February 28th at 11:59 pm and final peer evaluations due Friday, May 2nd at 11:59 pm.
7. Complete final Purdue course evaluation and submit screen shot of completion to Brightspace (due Friday, May 2nd at 11:59 pm).

Performance assessment will be done once at mid-semester and again at the completion of the semester using the criteria that follows. The mid-semester assessment is advisory (formative).

Professional Development (PD) Plan

To support your success on your project and your team, and overall, in your career and your life, you will create an individualized Professional Development Plan. For all students *except* for those enrolled in VIP 17910, 17911 or 17912, the plan is expected to incorporate ten (10) Professional Development (PD) activities that can be completed throughout the semester and include the three required activities: the Welcome to VIP “lecture” and the two Communication activities (the abstract submission and participation in the research conference). For students enrolled in VIP 17910, 17911 and 17912, the PD Plan only needs to include the *three* required activities. Typically, VIP students participate in the Purdue Undergraduate Research Conference through the Office of Undergraduate Research to complete the abstract and presentation requirements. A team’s advisor may opt for them to participate in a different conference or venue to satisfy the requirement. Please see your VIP Team Expectations at the end of the document for more information.

| Track/Topic* | Activity | Organizing unit | Date (of activity or expected participation) |
|-----------------------------|--|-----------------|---|
| 1. PD (Required) | Welcome to VIP | VIP | Complete by Friday, January 31 st |
| 2. Communication (Required) | Research Conference – Application submission | OUR | Abstract due: February 27 th at 11:59 pm See Purdue Undergraduate Research Conference Website |
| 3. Communication (Required) | Research Conference – Poster/Oral Presentation | OUR | Poster/oral presentations: April 8 and 10 (WL) and April 24 (Indy) |

| | | | |
|--|--|--|--|
| | | | See Purdue Undergraduate Research Conference Website |
|--|--|--|--|

The remaining seven activities are to be chosen by the student with guidance from their VIP mentor(s), depending on their interest and what would be most beneficial for their work on a specific team. Please see the Team Expectations Section below for specific suggestions for this team.

The VIP PD Brightspace site hosts a variety of Professional Development videos and information on interactive workshops and live presentations that will be offered this semester. Students should browse the materials and talk with their mentors during the first week of the semester to create their individual Professional Development (PD) Plan. The PD plan should be submitted on the team Brightspace by **Friday, January 31st**. Students may update their plans as needed during the semester without resubmitting to Brightspace.

Students will be expected to document their participation in each of the activities via the assignments posted in their team Brightspace, as well as in the Midsemester Individual Performance Evaluation (IPE) and the Final IPE & PD Reflection assignments.

ECE Senior Design Students

In addition to the above requirements and expectations, senior design students must complete the following documents (templates are posted on the VIP website and in Brightspace):

- VIP Senior Design Project Proposal: Must be completed by individually by each senior design student during the first semester of Senior Design to ensure he/she has an appropriate project and role. This is to be submitted at the mid-semester and final evaluations during the first senior design semester instead of the Individual Performance Evaluation rubrics.
- VIP Senior Design Project Description: Must be completed during the second semester of Senior Design by each project team. This is to be submitted at the mid-semester and final evaluations during the second senior design semester instead of the Individual Performance Evaluation rubrics.
- VIP Senior Design Reflection, Outcomes, and Rubric (ROR) document: The Senior Design Reflection, Outcomes, and Rubric (ROR) document is submitted at the mid-semester and final evaluations both senior design semesters instead of the Individual Performance Evaluation rubrics.
- Both the Senior Design Project Proposal/Description and the Senior Design Reflection, Outcomes, and Rubric (ROR) document will used by the advisor(s) and VIP admin to approve the satisfaction of the course outcomes and in determining the course grade.

Grading for Senior Design Students

| (Each outcome will be rated on a scale from 1 to 4, where 4 is "Excellent", 3 is "Good", 2 is "Adequate/Acceptable", and 1 is "Inadequate/Unacceptable") | | Weight |
|--|---|---------------|
| i. | An ability to apply engineering design to create a product that meets the specified needs of this engineering design experience with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. | 30% |
| ii. | An ability to develop and conduct experimentation, analyze and interpret data, and use engineering judgment to draw conclusions related to the development of the product of this engineering design experience. | 15% |
| iii. | An ability to identify, formulate, and solve complex engineering problems arising from this engineering design experience by applying principles of engineering, science, and mathematics. | 15% |

| | | |
|------|---|-----|
| iv. | An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives associated with this design experience. | 10% |
| v. | An ability to communicate effectively with a range of audiences appropriate to this design experience in both a written report and oral presentation. | 10% |
| vi. | An ability to acquire and apply new knowledge as needed, using appropriate learning strategies to complete the engineering design experience associated with this course. | 10% |
| vii. | An ability to recognize ethical and professional responsibilities associated with this engineering design experience and make informed judgments which must consider the impact of the product of this engineering design experience in global, economic, environmental, and societal contexts. | 10% |

Academic Integrity and Professional Responsibility

Academic integrity is one of the highest values that Purdue University holds. The VIP Program expects every member of the Purdue community to adhere to the Purdue Honor Pledge (“As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue.”) and practice honorable, ethical, and professional behavior both inside and outside the classroom. In VIP, students are encouraged to work together and share information. When indicated, students and teams are allowed to modify previous versions of documents to be submitted for the current assignment. However, it is unacceptable for students to claim individual work that is not their own or to use sources without appropriate citation. It is also unacceptable for students to misrepresent information to their instructional staff, their team, and/or their client. In addition, misuse of VIP resources is considered dishonest. At the instructor’s discretion, instances of academic dishonesty will result in a reduced score, a zero score, or a failing grade for the course. All occurrences of academic dishonesty will be reported to the [Office of Students Rights and Responsibilities](#) (OSSR) and the students’ respective schools. If there is any question as to whether a given action might be construed as academic dishonesty, please see the instructor or the teaching assistant before you engage in any such action.

Students are expected to adhere to the guidelines provided by instructors for academic work so that no student gains an unfair advantage. Using or attempting to use unauthorized materials, information, study aids, notes, or any other device in any academic exercise will not be tolerated. Unauthorized materials may include anything which or anyone who gives a student assistance that has not been approved by the instructor in advance.

Nondiscrimination Statement

Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. A hyperlink to Purdue’s full Nondiscrimination Policy Statement is included in our course Brightspace under University Policies.

Accessibility

VIP, and Purdue University, strives to make learning experiences accessible to all participants. If you anticipate or experience physical or academic barriers based on disability, you are encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247, as soon as possible.

If the Disability Resource Center (DRC) has determined reasonable accommodations that you would like to utilize in my class, you must send me your Course Accommodation Letter. Instructions on sharing your Course Accommodation Letter can be found by visiting: <https://www.purdue.edu/drc/students/course-accommodation-letter.php> Additionally, you are strongly encouraged to contact me as soon as possible to discuss implementation of your accommodations.

Mental Health/Wellness Statement

- **If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try** Therapy Assistance Online (TAO), a new web and app-based mental health resource available courtesy of Purdue Counseling and Psychological Services (CAPS). TAO is available to students, faculty, and staff at any time.
- **If you need support and information about options and resources**, please contact or see the [Office of the Dean of Students](#). Call 765-494-1747. Hours of operation are M-F, 8 a.m.- 5 p.m.
- **If you find yourself struggling to find a healthy balance between academics, social life, stress, etc.**, sign up for free one-on-one virtual or in-person sessions in West Lafayette with a [Purdue Wellness Coach at RecWell](#). Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is free and can be done on BoilerConnect. Students in Indianapolis will find support services curated on the [Vice Provost for Student Life website](#).
- **If you're struggling and need mental health services: Purdue University is committed to advancing the mental health and well-being of its students.** If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact [Counseling and Psychological Services \(CAPS\)](#) at 765-494-6995 during and after hours, on weekends and holidays, or by going to the CAPS offices in [West Lafayette](#) or [Indianapolis](#).
- **TaskHuman: On-demand access to wellness providers with 1000s of topics, day or night**
 - Purdue users eligible for unlimited FREE coaching: <https://taskhuman.com/referral/purdue>
 - Good intro video: <https://www.youtube.com/watch?v=eTeq8hApTNg>
- **Any student who faces challenges securing their food or housing** and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed, and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday.
- **The Community, Assistance and Resources for Engineering Students (CARES) Hub** is open to support the well-being of all engineering students. The CARES Hub, located in ARMS 1261, is a welcoming, inclusive space for students to study, connect, grab a snack, and relax 7 days per week. There will also be wellness activities, educational workshops, peer mentoring, social events, and on-site counseling. If you need help handling stress or working through a problem, schedule time with our CARES Hub therapist, Jennie Beutler, [here](#) or drop by ARMS 1251 to speak to Jennie without an appointment during her **Let's Talk** walk-in hours from 12:30-1:30pm Monday-Friday. Please visit the [CARES Hub webpage](#) to learn more. The CARES Hub staff look forward to connecting with you!

Emergency Preparation

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.

A link to Purdue's Information on [Emergency Preparation and Planning](#) is located on Brightspace under "University Policies and Statements." This website covers topics such as Severe Weather Guidance, Emergency Plans, and a place to sign up for the Emergency Warning Notification System.

VIP Team Expectations: How to Succeed on Team

- How many hours/week should each student devote to VIP? (Note: it would be expected that students spend approximately 3-5 hours/week for each credit hour they are enrolled.)
- How is the student expected to document his or her individual and project work throughout the semester?
- Expectations for weekly meetings?
- Any specific assignments (especially if assessed individually)?
- Is there a final presentation and/or report? If so, what is the expected content and format?
- What are expectations for the completion of the required Professional Development (PD) plan?
- Will the team participate in the Purdue Undergraduate Research Expo or another conference or venue?
- *Instructors should strive for maximum transparency and clarity in their communications to students about the use of AI in their course. See the [Guidance on the Use of AI in Teaching and Learning](#) posted on the Office of the Provost website “Instructor Resources” tab for specific guidance on allowable, appropriate use of AI tools by students.*
- Any other expectations?

VIP Team Facilities Standard Operation Procedures (SOP) and Expectations

The VIP Suite is available for schedule team (lab) meetings, and for other VIP related meetings (see “Reserving VIP Lab Rooms on the Resources page (<https://engineering.purdue.edu/VIP/resources>). Teams may also be meeting in research lab, classrooms, and conferences room as indicated by your team mentors.

If your VIP team uses your advisors’ research lab facilities, information regarding SOP and Expectations will be provided here.