



## VIP Syllabus Spring 2021

VIP Team: xxxxxx

VIP 17911, 17920, 27920, 37920, 47920, 47921, 47922

ENGR 39600, 49600

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

### Course Information

- **CRN:** see <https://engineering.purdue.edu/vip/register> for CRN for your course number and modality
- **Meeting day(s) and time and Instructional Modality**
  - **Lecture:** ASYNC ONLINE
  - **Lab (Team): Instruction Modality:** Face-to-Face, Hybrid/Hy-Flex, Async-Online, or Sync-Online) *Must match modality listed in the Spring 2021 [schedule in myPurdue](#). See the Office of the Registrar's [Instructional Modality document](#) for details on each modality.*
  - **Lab (Team) Meeting day(s) and times:** for courses with synchronous meeting times. Class meeting days/times should match the Spring 2021 schedule. For hybrid courses with rotating face-to-face meeting days/times, list those times or use Purdue's In-Person Course Planning tool to group and notify students. For online courses, list any synchronous elements such as office hours. Documentation, videos, and FAQs on the In-Person Course Planning tool are located on the Registrar's [Faculty & Staff Information](#) webpage. Users can access the tool by logging into myPurdue and navigating to the Tools channel on the Faculty tab.
  - **Lab Meeting Location/Information:** Room information or meeting links
  - **Note:** Course will not meet on the following Reading Days: February 17, March 18, and April 13
- **Course credit hours:**
  - One credit hour: VIP 17911 and 17912
  - Two credit hours: VIP 17920, 27920, 37920, 47920, 47921, 47922
  - Three credit hours: ENGR 39600 and 49600
- **Prerequisites:** The prerequisite for VIP 17912 is 17911; the prerequisite for VIP 47922 is 47921.

### 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 weekly lectures and 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.

### Contact Information

- VIP Program email: [vip@purdue.edu](mailto:vip@purdue.edu)
- **Program Directors and Lecture/Professional Development Instructors:**
  - Prof. Carla Zoltowski (Director): [cbz@purdue.edu](mailto:cbz@purdue.edu)
  - Dr. Nichole Ramirez (Assistant Director): Email: [nramire@purdue.edu](mailto:nramire@purdue.edu)
  - Office Hours: By appointment

- **VIP Team xxxxx Instructor(s)/Mentor(s):**
  - Name1
    - Email / Phone
    - Office Location
    - Office Hours
  - Name2
    - Email / Phone
    - Office Location
    - Office Hours
  - Etc....

## 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. *Preferred browser:* ITaP recommends Google Chrome or Mozilla Firefox when accessing Brightspace.
  - For Overall Course Announcements and Professional Development (PD) opportunities: Spring 2021 VIP PD - Merge
  - For lab/team: Spring 2021 VIP *team* - Merge
- 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
- Other for xxxx team (delete if not applicable):

## Attendance Policy during COVID-19

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 (virtual or in-person) 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. Students should stay home and contact the Protect Purdue Health Center (496-INFO) if they feel ill, have any symptoms associated with COVID-19, or suspect they have been exposed to the virus.

In the current context of COVID-19, in-person attendance will not be a factor in the final grades. If you need to miss a meeting, you are expected to communicate your absence with as much lead-time as possible to your mentors and teammates. 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. When the student is unable to make direct contact with the instructor and is unable to leave word with the instructor's department because of circumstances beyond the student's control, and in cases of bereavement, quarantine, or isolation, the student or the student's representative should contact the Office of the Dean of Students via [email](#) or phone at 765-494-1747. Our course Brightspace includes a link on Attendance and Grief Absence policies under the University Policies menu.

## Academic Guidance in the Event a Student is Quarantined/Isolated

If you must quarantine or isolate at any point in time during the semester, please reach out to your VIP team mentors via email so that they can communicate about how you can continue to learn remotely. In addition, with the Protect Purdue Health Center (PPHC) to get documentation and support, including access to an Academic Case Manager who can provide you with general guidelines/resources around communicating with your instructors, be available for academic support, and offer suggestions for how to be successful when learning remotely. Your Academic Case Manager can be reached at [acmq@purdue.edu](mailto:acmq@purdue.edu). Importantly, if you find yourself too sick to progress in the course, notify your academic case manager and notify your VIP team mentors via email or Brightspace. We will make arrangements based on your particular situation.

### ***Professional Development Plan***

You are also expected to develop and complete an individualized Professional Development plan to support your success on your project and your team, and overall, in your career and your life. The professional development opportunities be generally be offered remotely and asynchronously, although there will be interactive and synchronous activities as well.

## 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:**

- Participates fully in team (lab) meetings
- Participates fully in sub-team meetings
- Contributes fair share of team's work with acceptable quality
- Keeps commitments and completes assignments on time
- Listens to teammates and respects their contributions
- Communicates clearly. Shares information with teammates
- Respects and responds to feedback from teammates
- As appropriate, involves and assists others in efforts
- Demonstrates leadership and/or project management skills
- Development and implementation of PD plan
- 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 Sunday, February 7<sup>th</sup>.
4. Complete mid-semester individual performance evaluation by Sunday, March 7<sup>th</sup> at 11:59 pm in Brightspace.
5. Complete Final Individual Performance Evaluation & PD Reflection by Friday, April 30<sup>th</sup> at 11:59 pm in Brightspace.
6. Complete mid-semester and final peer evaluation of team members in CATME (mid-semester due Sunday, March 7<sup>th</sup> at 11:59 pm and final peer evaluations due Friday, April 30<sup>th</sup> at 11:59 pm).
7. Complete final Purdue course evaluation and submit screen shot of completion to Brightspace (due Friday, April 30<sup>th</sup> 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 ENGR 17911 or 17912, the plan is expected to include ten (10) Professional Development (PD) activities that can be completed throughout the semester. Three activities are required for students enrolled in VIP x792x and ENGR

x9600: the Welcome to VIP “lecture” and two Communication activities. However, for ENGR 17911 and 17912 students, only the two Communication activities are required. Typically, VIP students participate in the Purdue Undergraduate Research Conference in the Spring 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	Posted in VIP PD Brightspace by Tuesday, January 19 <sup>th</sup>
2. Communication (Required)	Research Conference – Abstract submission	OUR	Due March 11 <sup>th</sup> at 11:59 pm. See <a href="#">Purdue Undergraduate Research Conference Website</a>
3. Communication (Required)	Research Conference – Poster/Oral Presentation	OUR	April 12 - 19

***The remaining seven activities are to be chosen by the student, 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.

VIP is working with other programs to compile an expansive library of Professional Development videos along with access to interactive workshops, live presentations, etc. 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 Brightspace by Sunday, February 7<sup>th</sup>. 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 in the Final Individual Performance Evaluation & PD Reflection assignment.

### **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 Matrix, and Rubric document: An index of how the course outcomes have been met over the two semesters and where evidence for this mastery can be found (notebook, project documentation, etc.). This is to be 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 Matrix and Rubric document will be 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.

## 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 as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let us know so that we can discuss options. You are also encouraged to contact the Disability Resource Center at: [drc@purdue.edu](mailto:drc@purdue.edu) or by phone: 765-494-1247.

## Mental Health/Wellness Statement

- **If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack, <https://purdue.welltrack.com/>.** Sign in and find information and tools at your fingertips, available to you at any time.
- **If you need support and information about options and resources,** please see the Office of the Dean of Students, <http://www.purdue.edu/odos>, for drop-in hours (M-F, 8 am- 5 pm).
- **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 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 completely free and can be done on BoilerConnect. If you have any questions, please contact Purdue Wellness at [evans240@purdue.edu](mailto:evans240@purdue.edu).
- **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 office on the second floor of the Purdue University Student Health Center (PUSH) during business hours.
- **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>

## Lab/Facilities Guidance Regarding Protect Purdue

The VIP Suite is expected to be available after the start of the semester on a limited basis. More information will be provided at that time. If you are on campus for your VIP work, you are expected to comply with the Protect Purdue Plan.

The [Protect Purdue Plan](#), which includes the [Protect Purdue Pledge](#), is campus policy and as such all members of the Purdue community must comply with the required health and safety guidelines. Required behaviors in this class include: staying home and contacting the Protect Purdue Health Center (496-INFO) if you feel ill or know you have been exposed to the virus, properly wearing a mask [in classrooms and campus building](#), at all times (e.g., mask covers nose and mouth, no eating/drinking in the classroom), disinfecting desk/workspace prior to and after use, maintaining appropriate social distancing with peers and instructors (including when entering/exiting classrooms), refraining from moving furniture, avoiding shared use of personal items, maintaining robust hygiene (e.g., handwashing, disposal of tissues) prior to, during and after class, and following all safety directions from the instructor.

Students who are not engaging in these behaviors (e.g., wearing a mask) will be offered the opportunity to comply. If non-compliance continues, possible results include instructors asking the student to leave class and instructors dismissing the whole class. Students who do not comply with the required health behaviors are violating the University Code of Conduct and will be reported to the Dean of Students Office with sanctions ranging from educational requirements to dismissal from the university.

Any student who has substantial reason to believe that another person in a campus room (e.g., classroom) is threatening the safety of others by not complying (e.g., not wearing a mask) may leave the room without consequence. The student is encouraged to report the behavior to and discuss next steps with their instructor. Students also have the option of reporting the behavior to the [Office of the Student Rights and Responsibilities](#). See also [Purdue University Bill of Student Rights](#).

## **Learning Remotely Resources**

Purdue has posted a number of resources on the “Learning Remotely” website, including tools for working collaboratively with your peers: <https://www.purdue.edu/innovativelearning/learning-remotely/>

## **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.

## **VIP Team Expectations: How to Succeed**

Each team should detail specific expectations for the success in VIP. Sample questions to respond to include:

- 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?
- Any other expectations?

## **VIP Team Facilities Standard Operation Procedures (SOP) and Expectations**

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