

IB Diploma Years Program Year 1 Design

11th Grade Willows Preparatory School

Course Description:

Design is the link between innovation and creativity, taking thoughts and exploring possibilities and constraints associated with products or systems, allowing students to redefine and manage the creation of further thought through prototyping, experimentation, and adaptation.

Designers use a wide variety of concepts, principles and strategies, which, taken together, make up what is known as design methodology. Designers adapt their approach to different design contexts, but they have a common understanding of the process necessary to form valid and suitable solutions.

DP (Diploma Program) Design expects all students must adopt an approach that allows them to think creatively within the constraints of a design specification. The ability to create unique and original solutions to a proposed problem is advantageous to the DP Design course. Students in the DP Design course have a responsibility to the community and the environment. Their decisions often have major impact on both, and they must always be aware of the ethical and moral dimensions of their work. Diploma Program design technology builds on experiences of inquiry that students have gained in their time in the IB Primary Years Program (PYP) and MYP.

Student AIMS/Goals:

The aims of the subject state in a general way what the teacher may expect to teach or do, and what a student may expect to experience or learn. The aims of the DP Design program is to develop:

- A sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them
- An ability to explore concepts, ideas and issues with personal, local and global significance to acquire in-depth knowledge and understanding of design and technology
- Initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making
- An ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others
- A propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems
- an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives
- A willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas and strategies so they can articulate and defend their proposals with confidence
- An understanding of the contribution of design and technology to the promotion of intellectual, physical and emotional balance and the achievement of personal and social well-being
- Empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment
- Skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.

Student Assessment Objectives:

It is the intention of the design technology course that students are able to fulfill the following assessment objectives:

- Demonstrate knowledge and understanding of:
 - a. facts, concepts, principles and terminology
 - b. design methodology and technology

- c. methods of communicating and presenting technological information.
- Apply and use:
 - a. facts, concepts, principles and terminology
 - b. design methodology and technology
 - c. methods of communicating and presenting technological information.
- Construct, analyze and evaluate:
 - a. design briefs, problems, specifications and plans
 - b. methods, techniques and products
 - c. data, information, and technological explanations.
- Demonstrate the appropriate research, experimentation, modelling and personal skills necessary to carry out innovative, insightful, ethical and effective designing.

Course Schedule Outline:

Semester 1

- Schematic Drawing
- Catapult Design

Semester 2

- Real World Design Challenge
- Robot Maze

Homework:

In general, homework is not assigned in DP Design. Most work done at home will be collecting materials in preparation for the next class.

WPS Assessment Types:

For a detailed description of the Assessment Policies, please see the assessment Policy Handbook the WPS website.

Willows Preparatory School teachers create and implement both formative and summative assessments, both of which are related to each other and integral to the learning process.

Formative Assessment (20% of semester grade) – assessments that provide smaller amounts of feedback on specific learning objectives and/or require students to demonstrate their knowledge of specific targeted aims in order to drive future instruction (e.g. at WPS: lesson exit ticket, daily warm-ups, comprehension quizzes, etc.).

Summative Assessment (80% of semester grade)– assessments that are designed to provide evidence for evaluating student achievement using required DP subject-group specific assessment criteria (e.g. at WPS: written assessments, projects, presentation, performances, etc.).

Assignment Submission Guidelines:

Files

1. All work is submitted in ManageBac, I do not accept submissions anywhere else
2. Files cannot be JPG's
3. Files must be named with name or initials and name of assignment/submission
 - a. Ex. JG_unit3_conceptmap.pdf

Late Work

YOU MUST NOTIFY ME THROUGH EMAIL when you have submitted late work or revised work

- a. YOU MUST PUT 'LATE WORK' IN THE SUBJECT LINE
- b. YOU MUST STATE WHAT ASSIGNMENT WAS SUBMITTED IN THE EMAIL
- c. I usually don't respond to Late Work emails, they are like a checklist for me to use when grading

Tests/Quizzes:

- In general, tests and quizzes will be in the form of projects and check-ins.

Missing Class:

1. If you are missing class, please notify me through email to ask for work you're missing.
2. It is your responsibility to ask about and complete work you have missed.
3. Please ask for help if you are uncertain about the concepts or need assistance!

Student Conduct:

To maintain a safe and enjoyable time at school, students are expected to behave in a responsible manner. Violations of student conduct expectations may result in disciplinary measures, which are explained later in this document.

The following are expectations of all WPS students:

- Always demonstrate courteous and respectful behavior, including with use of school equipment/property and other people's belongings
- Follow staff instructions promptly
- Arrive to class fully equipped, ready to engage and in a timely manner
- Keep up to date with academic submissions and timelines
- Discuss your academic needs with your classroom teachers
- Walk in shared spaces and speak at a respectful volume while others are working and learning
- Conduct themselves with a sense of decorum
- When applicable, follow all guidelines outlined in the COVID-19 Handbook

Zero Tolerance Policies:

Willows Preparatory School has zero tolerance for alcohol, drugs, tobacco, weapons, age-inappropriate material, graffiti and repeated instances of bullying behavior. If any students are found in possession of or engaging in any related activities of the above, whether on campus and/or during school hours, appropriate referrals will be made, and consequences/outcomes will be documented in the student's file.

Consequences:

Any student misconduct will be documented and may result in the following:

- A referral to Head of School or Assistant Head of School
- Support services through Counselor referral
- Meeting with parent, teacher, and administration
- Probation from extracurricular activities or other privileges (i.e., sport, clubs, lunch outside)
- Restricted use of facilities

Misconduct issues of a more serious nature, such as those related to zero tolerance policies include:

- Suspension – You are expected to keep up with your schoolwork during this time, as no allowances will be made in this regard.
- Expulsion – You are permanently disenrolled from Willows Preparatory School

Technology:

Every student at WPS has their own Microsoft Surface. WPS's official Laptop/Technology Policy is found at the end of this document.

Teacher-Student E-mail Communication:

You have the opportunity to reach out to teachers and staff using email; however, when applicable, face-to-face communication is preferred. Student email addresses should only be used for communication about academic issues or to ask questions in a respectful and professional manner. Students are expected to check email daily. If a student receives an email or message from another student that is confusing or inappropriate, please notify a teacher or staff

member immediately. Willows Preparatory School reserves the right to access all WPS student emails, reset all passwords, and if necessary, suspend all email activity.

Cell Phones and smart devices:

We understand that cell phones and other smart devices are an essential part of daily life. Smart watches while linked to cell phones are considered cell phones. Please make sure that the watches are on Do Not Disturb mode during the school day. Students are permitted to bring cell phones to school each day subject to the following conditions:

- Cell phones should remain OFF when students are present on the school campus. Cell phones must be stored in book bags during the 1st semester (or for however long COVID-19 Handbook guidelines are in place) or in student lockers.
- Students may use their cell phones to contact parents upon request. All authorized cell phone use must occur at the Front Desk in the main building and/or under the supervision of an administrator or teacher.

If a member of staff can see or hear a cell phone, the phone will be confiscated and turned over to the front desk. Confiscated phones will be returned at the end of that school day from the front desk after a parent is notified about the violation of this policy. All incidents are documented and recorded—repeat violations may result in additional consequences.

In case of a personal emergency on campus (illness, personal situation, etc.) the student’s first line of contact is a staff member. In family emergency situations, parents should contact the front office if they need to reach a student.

Classroom Computer Use

Laptops will be used regularly in class for lessons, notes, and activities. Students should not be checking emails, grades, chatting via Teams, or any other activities on their computer unless the teacher has given them permission. If a student is found not using a computer appropriately, the computer will be taken away until the end of class and the following will take place:

- 1st Time: A warning from administration.
- 2nd Time: An email sent home to parents.
- 3rd Time: Meet with administration and discuss possible repercussions.

WPS Students will no longer be allowed to use headphones for personal use in any place of the school building unless:

- a) the headphones are being used for specific class content (i.e., sound editing a video for a project)
- b) they are being used before or after school hours (8:30am-3:30pm)

Students should not have Spotify or any other streaming music program on their school computers.

Student Name (Print) _____

Student Signature _____ Date _____

Parent/Guardian Signature _____ Date _____

Please return by September 10, 2021