

Data Visualization (DTVS)

Purdue Polytechnic Institute

Department of Computer Graphics Technology

Advising Worksheet

Disclaimer: The Purdue West Lafayette catalog is considered the source for academic and programmatic requirements for students entering programs during the corresponding Fall, Spring, and Summer semesters. The Advising Worksheet assists students in the development of an individualized 8-semester plan. Students are encouraged to use this worksheet and MyPurduePlan* (the online degree auditing tool) as they work with their academic advisor toward the completion of all their degree requirements.

Notification: Each student is ultimately responsible for knowing, monitoring, and completing all degree requirements.

An undergraduate degree in the Purdue Polytechnic Institute requires completion of the following degree requirements.

University Degree Requirements		
Minimum 2.0 Cumulative GPA	Minimum 120 Credits that fulfill degree requirements	32 Residency Credits (30000-level and above) at a Purdue University Campus
University Core Curriculum **		
https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html		
<ul style="list-style-type: none"> Human Cultures: Behavioral/Social Science Human Cultures: Humanities Information Literacy Oral Communication 	<ul style="list-style-type: none"> Quantitative Reasoning Science Science, Technology & Society Selective Written Communication 	
Civics Literacy Proficiency		
https://www.purdue.edu/provost/about/provostInitiatives/civics/		
Required Major Program Courses (see following pages)		
Departmental specific requirement		
Students must earn a "C-" or better in all CGT courses.		
Minimum 2.0 cumulative GPA		
Pass/No Pass option		
<ul style="list-style-type: none"> Pass/No Pass may be allowed for Electives or Technical Electives only. 		
Non-course/Non-credit Requirements		
<ul style="list-style-type: none"> Complete a Professional Requirement. * Complete an Intercultural Requirement. Complete a Humanities requirement 		

* This audit is not your academic transcript and it is not official notification of completion of degree or certificate requirements.

** University Core Curriculum Outcomes may be met through completions of the Purdue Polytechnic Institute curriculum. Students should Consult with their academic advisors and MyPurdue Plan for course selections.

Computer Graphics Technology – Data Visualization (DTVS)

Name:

PUID:

Suggested Arrangement of Courses:

Cr	Fall 1st Year	Notes	Cr	Spring 1st Year	Notes
3	CGT 11800 Fund. Of Imaging Tech		3	CGT 17208 UX Design Studio I: Fund	
3	CGT 14100 Internet Fdtn Dev & Tech		3	CGT 27500 Data Visualization II	
3	CGT 27000 Intro to Data Visualization		3	Human Cultures: Behavioral/Social Science (BSS) Core*	
3	SCLA 10100 Transformative Texts: Written Communication and Critical Thinking: Antiquity to Modernity*		3	SCLA 10200 Transformative Texts: Oral Communication and Critical Thinking: Modern World*	
3	MA 15800 Pre-calculus*		3	MA 16010 Applied Calculus I*	
15			15		

Cr	Fall 2nd Year	Notes	Cr	Spring 2nd Year	Notes
3	CGT 11600 Geo Mdl Visual & Comm		1	CGT 25001 Professional Practices I	
3	CGT 21500 CG Programming I		3	CGT Selective	
4	PHYS 22000 General Physics*		3	AD 105 Design I	
3	Human Culture: Humanities (HUM) Core*		3	ECON 21000 Principles of Econ	
1	CGT 27001 Topics in Data Visualization		3	Technical Elective	
			3	Free Elective	
14			16		

Cr	Fall 3rd Year	Notes	Cr	Spring 3rd Year	Notes
3	CGT 37700 Scientific Visualization		3	CGT 37000 Interact. Data Visualization	
3	STAT 30100 Elem. Statistics		3	CGT Selective (30000 or 40000 Level)	
3	Advanced English Selective		3	CGT Globalization Selective	
3	Science (SCI) Core*		3	Management Selective	
3	Free Elective		3	Free Elective	
15			15		

Cr	Fall 4th Year	Notes	Cr	Spring 4th Year	Notes
3	CGT 47000 Visualization Studio		2	CGT 41201 Contemp Prob in CGT II	
2	CGT 41101 Contemp Prob in CGT I		1	CGT 45001 Professional Practices II	
3	MGMT 45500 Leg. Backgrd for Bus I		3	Communication Selective	
3	Humanities Elective		3	Technical Elective	
4	Free Elective		3	Technical Elective	
			3	Free Elective	
15			15		

*Satisfies a University Core Requirement

Graduation Requirements:

**Intercultural Requirement, Humanities Requirement, Professional Requirement

Students must earn a "C-" or better in all CGT courses.

120 semester credits & 2.00 Graduation GPA required for Bachelor of Science degree.

Purdue policy states that a student may attempt a course no more than three (3) times. An attempt is defined as all courses displayed on a student's transcript including, but not limited to A,B,C,D,E,F,W,WF,I and IF

Each student must have 32 credit hours of 300- or 400-level Purdue courses for graduation.

Cornerstone Certificate is required with this major.

The student is ultimately responsible for knowing and completing all degree requirements.
myPurduePlan is knowledge source for specific requirements and completion

Revised 01/2023 (effective Fall 2024)



Computer Graphics Technology - Data Visualization(DTVS)
 Purdue Polytechnic Institute

Departmental/Program Major Courses (43 credits)
Required Major Courses (37 credits)

- _____ 3 CGT 11600 – Geometric Modeling For Visualization & Communication
- _____ 3 CGT 11800 – Fundamentals of Imaging Technology
- _____ 3 CGT 14100 – Internet Foundations, Development & Technologies
- _____ 3 CGT 17208 - UX Design Studio I Fundamentals (satisfies Science, Technology & Society for core)
- _____ 3 CGT 21500 – CG Programming I
- _____ 1 CGT 25001 – Professional Practices I
- _____ 3 CGT 27000 – Introduction to Data Visualization
- _____ 1 CGT 27001 - Topics in Data Visualization
- _____ 3 CGT 27500 - Data Visualization II
- _____ 3 CGT 37000 – Interactive Data Visualization
- _____ 3 CGT 37700 – Scientific Visualization
- _____ 2 CGT 41101 – Contemporary Problems in Applied CGT I
- _____ 2 CGT 41201 – Contemporary Problems in Applied CGT II
- _____ 1 CGT 45001 – Professional Practices II
- _____ 3 CGT 47000 – Visualization Studio

Major Selectives* - Select 2 of the following courses (6 credits)

- _____ 3 CGT Selective
- _____ 3 CGT Selective (30000 or 40000 Level)

Other Departmental /Program Course Requirements (61 credits)

- _____ 3 AD 10500 – Design I
- _____ SCLA 10100 - Transformative Texts: Written Communication and Critical Thinking: Antiquity to Modernity (*satisfies Written Communication for core*)
- _____ 3 ECON 21000 – Principles of Economics (*satisfies Human Culture Behavior/Social Science for core*)
- _____ SCLA 10200 - Transformative Texts: Oral Communication and Critical Thinking: Modern World (*satisfies Oral Communication for core*)
- _____ 3 MA 15800 – PreCalculus (*satisfies Quantitative Reasoning Selective for core*)
- _____ 3 MA 16010 – Applied Calculus I (*satisfies Quantitative Reasoning Selective for core*)
- _____ 3 MGMT 45500 – Legal Background For Business I
- _____ 4 PHYS 22000 – General Physics (*satisfies Science Selective for core*)
- _____ 3 STAT 30100 – Elementary Statistics
- _____ 3 Human Cultures: Humanities (HUM) (*satisfies Human Cultures: Humanities for core*)
- _____ 3 Human Cultures: Behavioral/Social Sciences (BSS) (*satisfies Human Cultures: Behavioral/Social Sciences for core*)
- _____ 3 Humanities Elective
- _____ 3 Science (SCI) (*satisfies Science for core*)
- _____ 3 Advanced English Selective
- _____ 3 Management Elective
- _____ 3 Communication Selective
- _____ 3 CGT Global Selective
- _____ 9 Technical Elective

Electives (16 credits)

- _____ 16 Free Elective

University Core Requirements

- | | |
|--|---|
| _____ Human Cultures Humanities | _____ Science, Technology & Society Selective |
| _____ Human Cultures Behavioral/Social Science | _____ Written Communication |
| _____ Information Literacy | _____ Oral Communication |
| _____ Science Selective | _____ Quantitative Reasoning |
| _____ Science Selective | |

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SUPPLEMENTAL CGT INFORMATION

CGT SELECTIVES:

CGT Selective - Entertainment: Animation & Visual Effects, Game

CGT 10501	Introduction to Games	CGT 33500	Game Scripting Digital Lighting & Rendering for Computer
CGT 11200	Sketching for Visualization & Communication	CGT 34000	Animation
CGT 11505	Scripting and Computational Thinking	CGT 34100	Motion for Computer Animation
CGT 12300	Animation Foundation	CGT 34505	Environment Modeling for Games
CGT 14700	VFX Introduction	CGT 34600	Digital, Video Audio
CGT 24100	Intro to Computer Animation	CGT 34800	Photorealistic Shaders
CGT 24500	Game Development I: Core Skills & Technologies	CGT 37500	Game Audio
CGT 24700	VFX Particles & Procedures for FX	CGT 37700	Scientific Visualization
CGT 25500	Game Development II: Design & Psychology	CGT 38500	Game Production
CGT 26505	Video Game Level Design	CGT 42500	Game Design
CGT 29000	Computer Graphics - Variable Titles	CGT 44200	Production for Computer Animation Game Development IV: Procedural Asset
CGT 32101	Digital Illustration	CGT 44500	Creation for Games
CGT 32500	Animation For Games	CGT 49000	Computer Graphics - Variable Titles
CGT 33300	Modeling For Entertainment Graphics	CGT 49100	Special Topics in Computer Graphics

Web Programming & Design

CGT 35300	Principles of Interactive & Dynamic Media
CGT 35600	Web Programming, Development, & Data Integration
CGT 45600	Advanced Web Programming, Development, & Data Integration

Advanced English Selective (possible Cornerstone Selective)

ENGL 20500	Introduction to Creative Writing	ENGL 42000	Business Writing
ENGL 30400	Advanced Composition	ENGL 42100	Technical Writing
ENGL 41900	Multimedia Writing		

Communication Selective

COM 30000 or 40000 Level

Management Selective

Any Course in Economics (ECON), Entrepreneurship (ENTR), Management (MGMT), Organizational Behavior & Human Resources (OBHR), Organizational Leadership & Supervision (OLS), or Technology, Leadership & Innovation (TLI), CSR 10300 & CSR 34200 also allowed.

Technical Elective

Any Course within the Purdue Polytechnic Institute, Engineering, Management, or Science. Subjects include: AAE, ABE, AFT, ASTR, AT, BCHM, BCM, BIOL, BME, BMS, CE, CGT, CHE, CHM, CLPH, CM, CNIT, CPB, CS, EAPS, ECE, ECET, ECON, EEE, ENE, ENFY, ENGR, ENGT, ENTM, ENTR, EPCS, GEP, IDE, IE, IET, EPPH, IT, MA, MCMP, ME, MET, MFET, MGMT, MSE, MSL, NS, NUCL, NUPH, NUR, OBHR, OLS, PHPR, PHRM, PHYS, PTEC, SCI, STAT, TECH, & TLI.



Polytechnic Institute

Humanities Elective

Any Course within the Purdue College of Liberal Arts. Subjects include: AAS, AD, AMST, ANTH, ARAB, ASAM, ASL, CHNS, CLCS, CMPL, COM, DANC, ENGL, FR, FVS, GER, GREK, GS, GSLA, HEBR, HIST, IDIS, ITAL, JPNS, JWST, KOR, LALS, LATN, LC, LING, MARS, MUS, PHIL, POL, PTGS, REL, RUSS, SCLA, SOC, SPAN, THTR, & WGSS.

CORE CURRICULUM

<https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html>

HUMAN CULTURES: HUMANITIES (HUM) CORE (*satisfies Human Cultures: Humanities*)

HUMAN CULTURES: BEHAVIORAL/SOCIAL SCIENCE (BSS) CORE

Any Human Cultures: Behavioral/Social Science (BSS) allowed.

SCIENCE (SCI) CORE - 2 Courses Required. PHYS 22000 and 1 course Any Science (SCI) allowed.

SCIENCE, TECHNOLOGY & SOCIETY (STS) CORE - CGT 17208 UX Design Studio I Fundamentals - Required

CGT GLOBALIZATION SELECTIVE:

AAS 27100	Intro to African American Studies	HIST 30000	Eve of Destruction: Global Crises and World Organization in the 20th Century
AAS 37300	Issues in African American Studies	HIST 33805	History of Human Rights
AGR 20100	Communication Across Cultures	HIST 35000	Sci & Society in the 20th Century World
ANSC 38100	Leadership for a Diverse Workplace	HIST 36600	Hispanic Heritage of the USA
ANTH 20300	Biological Bases of Human Social Behavior	HIST 37700	History & Culture of Native America
ANTH 20500	Human Culture Diversity	HIST 46900	Black Civil Rights Movement
ANTH 21000	Technology and Culture	HTM 37000	Sustainable Tourism & Responsible Travel
ANTH 21200	Culture, Food and Health	HTM 37200	Global Tourism Geography
ANTH 23000	Gender Across Cultures	MSL 20100	Individual Leadership Studies
ANTH 34000	Global Perspectives on Health	OLS 35000	Creativity in Business & Industry
ANTH 34100	Culture and Personality	PHIL 11400	Global Moral Issues
ANTH 37900	Native American Cultures	PHIL 43500	Philosophy of Mindy
ARAB 28000	Arabic Culture	POL 22200	Women, Politics & Public Policy
ASAM 24000	Intr to Asian American Studies	POL 23500	Rich & Poor Nations
AT 23300	Ethics and Aviation	POL 32600	Black Political Participation in America
CNIT 32000	Policy, Regulation, & Globalization in IT	POL 32700	Global Green Policies
COM 22400	Communicating in the Global Workplace	POL 36000	Women and the Law
COM 30300	Intercultural Communication	POL 41300	The Human Basis of Politics
COM 32000	Small Group Communication	POL 42300	International Environmental Policy
COM 41200	Theories of Human Interaction	POL 42900	Contemporary Political Problems
COM 42300	Leadership, Communication, & Organizations	POL 43300	International Organization
ECET 29000	International Experience	PSY 12000	Elementary Psychology
ECET 38001	Global Professional Issues in ET	PUBH 23500	Stress and Human Health
EDPS 23500	Learning and Motivation	SOC 10000	Intro to Sociology
EDPS 30000	Student Leadership Development	SOC 31000	Racial and Ethnic Diversity
EDPS 30100	Peer Counseling Training	SOC 33900	Intro to Sociology of Developing Nations
EDPS 31500	Collaborative Leadership: Listening	SYS 30000	It's a Complex World-Addressing Global Challenges
EDPS 31600	Collaborative Leadership: Cross-cultural Settings	TECH 33000	Technology & the Global Society
EDPS 31700	Collaborative Leadership: Mentoring	TLI 11200	Foundations of Tech Leadership
ENGL 41400	Literature & Culture	TLI 31400	Leading Innovations in Organizations
HDFS 28000	Diversity in Individual & Family Life	WGSS 28200	Intro to LGBT Studies
HDFS 33200	Stress & Coping in Contemporary Families	WGSS 38000	Gender & Multiculturalism
HEBR 38500	The Holocaust in Modern Hebrew Literature	WGSS 38300	Women and Work

Any Foreign Language: 20100, 20200, 30100, 30200, 40100, 40200

**Professional Requirement (1 required):

- A Complete an Internship
- B Complete a Co-op
- C Employment during the academic year related to Major Field of Study
- D Complete an in-class internship-like experience created by Major
- E Student Proposed Alternative: must be commensurate with the expectations of Professional Requirements related to Major Field of Study