Project Management

Students apply standard project management techniques to plan, develop, produce, and close a student-managed project through the creation of a single modular computer program to master the software development process.

We are learning to manage the software development	t process effec	tively through a	all of its stages	(B1)		
Success Criteria (I can)	IDQ	В	D	Р	С	E
create a software project plan by producing a software scope document and determining tasks, quality standards, deliverables, and schedule.	• PLAN					
use an appropriate project management tool to manage project components (i.e. charts, calendar,)	PLANCH1CH2	PLANCH1CH2	PLANCH1CH2	PLANCH1CH2	• CH1 • CH2	• CH1 • CH2
develop the software product according to the original project plan (i.e. ensuring the software meets end user needs, functions as intended, and can be produced within quality standards, budget, and imelines).	• DEV					
produce the software according to the specifications (i.e. code, test, and prepare for deployment) and create user documentation and training materials.	• DEV					
We are learning to contribute and reflect on standard project mana	agement techni	iques for a stud	dent-managed	team project (E	32)	
Success Criteria (I can)	IDQ	В	D	Р	С	E
contribute, as a team member, to the planning, development, production, and close out of a large software project.	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV
meet project goals and deadlines by managing individual time during a group project.	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV	PLANCH1CH2DEV

Seidel

Student unit reflection or comments:		

Data Structures and Algorithms

Students design, create, test, and analyze complex algorithms and data structure through the creation of computer programs with clear documentation to enhance their logical thinking skills.

IDQ = insufficient data or quality (less than 50%), B = beginning (50-59%), D = developing (60-69%), P = proficient (70-79%), C = comprehensive (80-89%), E = exemplary (90-100%)

Data Structures and Algorithms RVN = Review and New, DST = Data Structures, EDS = Extended Data Structures, ALG = Algorithms, REC = Recursion (1 = feedback submission, 2 = final submission)						
We are learning to work with data types and proper code maintenance techniques (A1, A4)						
Success Criteria (I can)	IDQ	В	D	Р	С	E
work independently, using support documentation, to resolve syntax issues during software development.	• RVN • DST					
create fully documented program code according to industry standards.	• DST • EDS	DST EDS				
use one-dimensional arrays of compound data types (i.e. objects)	• EDS • ALG					
We are learning to design and apply modular programming concepts including complex data types (A2, C1)						
Success Criteria (I can)	IDQ	В	D	Р	С	E
create a modular program that is divided among multiple files.	• DST					
modify existing modular program code to enhance the functionality of the program.	• EDS					
decompose a problem into modules, classes, or abstract data types using an object-oriented design methodology (using classes, methods, using UML, etc.).	• DST • EDS					
apply the principle of reusability in program design (use of inheritance).	• EDS					
We are learning to design, write and analyze complex algorithms and subprograms (A3, C2)						
Success Criteria (I can)	IDQ	В	D	Р	С	E
read from, and write to, an external file (i.e. database, API, text file, binary file,).	• DST					
compare the efficiency of sorting algorithms, using run times and computational complexity analysis.	• ALG					
compare the efficiency of linear and binary searches , using run times and computational complexity analysis.	• ALG					

Overall teacher comments:	
Student unit reflection or comments:	

Students apply standard project management techniques to plan, develop, produce, and close a student-managed project through the creation of a single Projec Management modular computer program to master the software development process.

Students
investigate ethical,
environmental,
and emerging
technology topics
to develop life-long
conscientious
attitudes and habits.

Digital Sage

Students
design, create,
test, and analyze complex
algorithms and data structures through the creation
of computer programs with
clear documentation to enhance
their logical thinking skills.

Data Structures and Algorithms