
Subject	§126. Technology Applications			
Course Title	**§126.39. Mobile Application Development (One-Half to One Credit), Beginning with School Year 2012-2013**			
TEKS (Knowledge and Skills)	**Student Expectation**	**Breakout**	**Element**	**Subelement**
(1) Creativity and innovation. The student develops products and generates new understanding by extending existing knowledge. The student is expected to:	(D) create browser-based applications for mobile devices			
(1) Creativity and innovation. The student develops products and generates new understanding by extending existing knowledge. The student is expected to:	(E) create native applications that can reside on specified mobile devices			
(1) Creativity and innovation. The student develops products and generates new understanding by extending existing knowledge. The student is expected to:	(F) create mobile applications that combine native and hybrid components	(i) create mobile applications that combine native components		
(1) Creativity and innovation. The student develops products and generates new understanding by extending existing knowledge. The student is expected to:	(F) create mobile applications that combine native and hybrid components	(ii) create mobile applications that combine hybrid components		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(A) demonstrate an understanding of and discuss how teams function	(i) demonstrate an understanding of how teams function		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(A) demonstrate an understanding of and discuss how teams function	(ii) discuss how teams function		
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(B) use teamwork to solve problems			
(2) Communication and collaboration. The student communicates and collaborates with peers to contribute to his or her own learning and the learning of others. The student is expected to:	(C) describe the development workflow of mobile applications			

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(iii) describe input requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(iv) analyze output requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(v) identify output requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(vi) describe output requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(vii) analyze processing requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(viii) identify processing requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(C) analyze, identify, and describe input, output, and processing requirements	(ix) describe processing requirements		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(D) analyze, identify, and define hardware and software specifications	(i) analyze hardware specifications		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(D) analyze, identify, and define hardware and software specifications	(ii) identify hardware specifications		

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(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(D) analyze, identify, and define hardware and software specifications	(iii) define hardware specifications		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(D) analyze, identify, and define hardware and software specifications	(iv) analyze software specifications		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(D) analyze, identify, and define hardware and software specifications	(v) identify software specifications		
(3) Research and information fluency. The student locates, analyzes, processes, and organizes data. The student is expected to:	(D) analyze, identify, and define hardware and software specifications	(vi) define software specifications (A) cn/e]4s0iate strategies to analyze		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(A) cn/e]4s0iate strategies to analyze problems and design algorithms. The student is expected to:			

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(C) compare and contrast available development approaches, including application to specific technologies and platforms	(i) compare available development approaches, including application to specific technologies		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(C) compare and contrast available development approaches, including application to specific technologies and platforms	(ii) compare available development approaches, including application to specific platforms		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(C) compare and contrast available development approaches, including application to specific technologies and platforms	(iii) contrast available development approaches, including application to specific technologies		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(C) compare and contrast available development approaches, including application to specific technologies and platforms	(iv) contrast available development approaches, including application to specific platforms		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(D) determine the most appropriate solution for the development of a given mobile application, including browser-based, native, and hybrid approaches	(i) determine the most appropriate solution for the development of a given mobile application, including browser-based approaches		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(D) determine the most appropriate solution for the development of a given mobile application, including browser-based, native, and hybrid approaches	(ii) determine the most appropriate solution for the development of a given mobile application, including native approaches		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(D) determine the most appropriate solution for the development of a given mobile application, including browser-based, native, and hybrid approaches	(iii) determine the most appropriate solution for the development of a given mobile application, including hybrid approaches		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) compare and contrast available programming languages and how their use might be applied to specific technologies and platforms	(i) compare available programming languages		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) compare and contrast available programming languages and how their use might be applied to specific technologies and platforms	(ii) contrast available programming languages		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) compare and contrast available programming languages and how their use might be applied to specific technologies and platforms	(iii) compare how use [of available programming languages] might be applied to specific technologies		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) compare and contrast available programming languages and how their use might be applied to specific technologies and platforms	(iv) contrast how use [of available programming languages] might be applied to specific technologies		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) compare and contrast available programming languages and how their use might be applied to specific technologies and platforms	(v) compare how use [of available programming languages] might be applied to specific platforms		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(E) compare and contrast available programming languages and how their use might be applied to specific technologies and platforms	(vi) contrast how use [of available programming languages] might be applied to specific platforms		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(F) identify and justify the selection of an appropriate programming language, including available resources and required interfaces	(i) identify the selection of an appropriate programming language, including available resources		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(F) identify and justify the selection of an appropriate programming language, including available resources and required interfaces	(ii) justify the selection of an appropriate lection of an appropriate programming		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(I) evaluate and justify the selection of appropriate options and components	(ii) justify the selection of appropriate options		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(I) evaluate and justify the selection of appropriate options and components	(iii) evaluate the selection of appropriate components		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(I) evaluate and justify selection of appropriate options and components	(iv) justify the selection of appropriate components		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) compare and contrast available networks and their implications for mobile application development	(i) compare available networks		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) compare and contrast available networks and their implications for mobile application development	(ii) contrast available networks		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) compare and contrast available networks and their implications for mobile application development	(iii) compare [available networks'] implications for mobile application development		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(J) compare and contrast available networks and their implications for mobile application development	(iv) contrast [available networks'] implications for mobile application development		

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(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) compare and contrast design strategies related to mobile network and device security	(i) compare design strategies related to mobile network security and device security		
(4) Critical thinking, problem solving, and decision making. The student uses appropriate strategies to analyze problems and design algorithms. The student is expected to:	(K) compare and contrast design strategies related to mobile network and device security	(iii) contrast design strategies related to mobile network security and device security		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss copyright laws and issues	(i) discuss copyright laws		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(A) discuss copyright laws and issues	(ii) discuss copyright issues		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(B) model ethical acquisition and use of digital information	(i) model ethical acquisition of digital information		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(B) model ethical acquisition and use of digital information	(ii) model ethical use of digital information		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(C) cite sources using established methods			

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(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) demonstrate proper digital etiquette and knowledge of acceptable use policies	(i) demonstrate proper digital etiquette		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(D) demonstrate proper digital etiquette and knowledge of acceptable use policies	(ii) demonstrate knowledge of acceptable use policies		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(E) investigate mobile device security measures such as passwords, virus detection, and virus prevention	(i) investigate mobile device security measures		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(F) describe potential risks and benefits associated with the use of a mobile application	(i) describe potential risks associated with the use of a mobile application		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(F) describe potential risks and benefits associated with the use of a mobile application	(ii) describe potential benefits associated with the use of a mobile application		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(G) identify current and emerging technologies related to mobile applications	(i) identify current technologies related to mobile applications		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(G) identify current and emerging technologies related to mobile applications	(ii) identify emerging technologies related to mobile applications		

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(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(H) evaluate technologies and assess their applicability to current mobile applications	(i) evaluate technologies		
(5) Digital citizenship. The student explores and understands safety, legal, cultural, and societal issues relating to the use of technology and information. The student is expected to:	(H) evaluate technologies and assess their applicability to current mobile applications	(ii) assess their [technologies] applicability to current mobile application		
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(A) demonstrate an understanding of the difference between desktop and mobile applications			
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate an understanding of hardware and software structures and requirements in the design of mobile applications	(i) demonstrate an understanding of hardware structures in the design of mobile applications		
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate an understanding of hardware and software structures and requirements in the design of mobile applications	(ii) demonstrate an understanding of software structures in the design of mobile applications		
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate an understanding of hardware and software structures and requirements in the design of mobile applications	(iii) demonstrate an understanding of hardware requirements in the design of mobile applications		
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(B) demonstrate an understanding of hardware and software structures and requirements in the design of mobile applications	(iv) demonstrate an understanding of software requirements in the design of mobile applications		

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(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(G) demonstrate an understanding of how low bandwidth and the mobility of a device affect the design of mobile applications	(ii) demonstrate an understanding of how the mobility of a device affect the design of mobile applications		
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(H) identify applications that are best suited for mobile devices			
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(I) demonstrate an understanding of the use of libraries when designing mobile applications			
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(J) use a simulation tool to emulate a mobile device's functionality			
(6) Technology operations and concepts. The student understands technology concepts, systems, and operations as they apply to computer science. The student is expected to:	(K) use actual mobile devices to test mobile applications			