FIRST
EDUCATION

Legend:

X The standard is clearly addressed by program activities.
- This standard potentially could be addressed as part the program either by actions that the coach or teacher takes when working with the students or by conditions established by the program.

	Technical Business Communications DOE Codes: 4508 Recommended Grade Level: 11-12 Recommended Prerequisites: Digital Applications and Responsibility	FIRST TECH CHALLENGE	FIRST TECH CHALLENGE Class Pack	FIRST ROBOTICS COMPETITION
Domain	**Introduction**			
Core Standard 1	**Students understand the nature of oral, visual, and written communication in the workplace.**			
	TBC-1.1 Identify Who, What, Why, and How in Technical/Business Communication			
	TBC-1.2 Understand the importance of technical/business communication in the workplace			
	TBC-1.3 Introduce concepts of situation, purpose, and audience			
	TBC-1.4 Understand that workplace communication is always situational (that it always has a reason or is a response) and is always part of a complex communication network			
	TBC-1.5 Recognize that technical/business documents include but are not limited to proposals, technical articles, abstracts, reports, letters, memos, e-mail, manuals, outlines, flyers			
Domain	**Gathering and Assessing Information/Resources**			
Core Standard 2	**Students locate, assess, and use information from a variety of print and online sources.**			
	TBC-2.1 Locate print and online information to aid in decision making and strengthening arguments			
	TBC-2.2 Determine authority and validity of sources/resources			
	TBC-2.3 Understand how statistics can be interpreted and manipulated			
	TBC-2.4 Identify and assess common logical fallacies, such as over-generalization and distorted data			
	TBC-2.5 Understand ethical issues involved in gathering, displaying, and interpreting data			
	TBC-2.6 Identify content and design errors in visual displays of data such as tables, graphs, and charts			
	TBC-2.7 Use research strategies to confirm accuracy of information in technical/business communication			
Domain	**Informational Reading**			

Core Standard 3	**Students read and analyze for content, interpretation, and inference.**					
	TBC-3.1	Identify and analyze the situation, purpose, and audience when reading print and online material				
	TBC-3.2	Apply reading skills to gather information from print and online material				
	TBC-3.3	Analyze the integrity of printed and online material				
	TBC-3.4	Use context clues to recognize word meaning				
	TBC-3.5	Select appropriate reading method for a particular situation (e.g., skimming, scanning, speed reading, and in-depth reading)				
	TBC-3.6	Distinguish between literal and inferential statements				
	TBC-3.7	Discuss print and online persuasive information and its impact on decision making				
	TBC-3.8	Interpret technical/business correspondence, professional articles, and supporting graphic materials				
	TBC-3.9	Interpret and use information from manuals, computer printouts, and electronic sources				
	TBC-3.10	Explain career-specific terminology				
	TBC-3.11	Analyze and synthesize information from print and electronic sources to create a group project or product				
Domain	**Written Communications**					
Core Standard 4	**Students plan and write documents that are appropriate for the situation, purpose and audience.**					
	TBC-4.1	Analyze the situation, purpose, and audience to guide the planning, writing, and revising of written material				
	TBC-4.2	Develop and use a writing process appropriate to the situation				
	TBC-4.3	Design letters, memos, and reports that conform to workplace standards and conventions				
	TBC-4.4	Demonstrate and understand effective layout, design, and typography				
	TBC-4.5	Create technical/business documents and presentations that are informational, persuasive, and analytical				
	TBC-4.6	Avoid biased language (e.g., sex, gender, race, etc.)				
	TBC-4.7	Revise and edit documents to improve content and effectiveness				
	TBC-4.8	Prepare industry-specific technical reports that incorporate graphic aids				
	TBC-4.9	Analyze and respond to complex business case studies				
	TBC-4.10	Research, analyze, and prepare collaboratively a written response to a complex business project				

Domain	Oral Communication				
	Students communicate in a clear, courteous, concise, and appropriate manner.				
Core Standard 5	TBC-5.1	Analyze the situation, purpose, and audience to guide the planning and presentation of oral communicate			
	TBC-5.2	Select language, visuals, and method of delivery appropriate to the situation			
	TBC-5.3	Use proper telephone techniques and etiquette			
	TBC-5.4	Ask questions with confidence to elicit general and specific information			
	TBC-5.5	Respond to questions directly and appropriately			
	TBC-5.6	Organize thoughts to reflect logical thinking before speaking			
	TBC-5.7	Identify regional and cultural differences in spoken communication; use oral language that is comprehensible to the audience			
	TBC-5.8	Plan and present short presentations individually and as a member of a group			
	TBC-5.9	Interact effectively with people from varying international, cultural, ethic, and racial backgrounds			
	TBC-5.10	Function as a team member to identify and solve several problems inherent in a capstone project			
	TBC-5.11	Present findings of capstone projects in a formal presentation using appropriate graphics, media, and support materials			
	TBC-5.12	Deliver impromptu and planned speeches with confidence			
	TBC-5.13	Advocate a specific cause			
	TBC-5.14	Serve effectively as an interviewer or interviewee in public relations, civic, media, and community situations			
Domain	**Listening**				
	Students listen discriminately and respond appropriately to oral communication.				
Core Standard 6	TBC-6.1	Analyze the situation, purpose, and audience of an oral message			
	TBC-6.2	Listen discriminately in order to separate verifiable information from opinion			
	TBC-6.3	Critique media and oral presentations analytically and critically			
	TBC-6.4	Assess and respond to a speaker's nonverbal messages			
	TBC-6.5	Identify and overcome major barriers to enhance active listening			
	TBC-6.6	Direct courteous attention to multiple speakers within a group to obtain key facts			

Domain	**Communication Through Technology**				
	Students enhance the effectiveness of communication through the use of technology.				
	TBC-7.1	Analyze the situation, purpose, and audience when using technology to communicate			
	TBC-7.2	Operate electronic message technologies to include facsimile machines, voice mail, conference calls, pagers, and e-mail			
	TBC-7.3	Use computer networks (e.g., communicating computers, Internet, or on-line databases) to facilitate collaborative or individual learning and communicating			
Core Standard 7	TBC-7.4	Discuss the use of the following communicating systems: WATS lines, LAN system, cellular technology, and voice recognition dictation			
	TBC-7.5	Enhance documents through the use of advanced layout, design, and graphics production software and scanning hardware			
	TBC-7.6	Address the ethical issues regarding intellectual property and dissemination of information generated electronically			
	TBC-7.7	Apply the rules of electronic messaging etiquette			
	TBC-7.8	Evaluate and select messages that may be addressed best by electronic media			
	TBC-7.9	Incorporate the use of international electronic resources such as Internet in complex projects			
Domain	**Employment Communication**				
	Students integrate communication in the pursuit of employability				
	TBC-8.1	Research the job market and specific potential employers using personal and electronic networks			
	TBC-8.2	Write a formal application letter, print and scannable versions of a resume, and a follow-up (thank you) letter for job opportunities			
Core Standard 8	TBC-8.3	Develop an employment portfolio			
	TBC-8.4	Demonstrate proper business and dining etiquette			
	TBC-8.5	Complete employment application forms			
	TBC-8.6	Demonstrate appropriate interviewing techniques (dress, questions, etc.)			
	TBC-8.7	Understand employer expectations (punctuality, dependability, willingness to learn, cooperation, etc.)			
	TBC-8.8	Identify employee expectations (health and safety, evaluations, fairness, pay, benefits, rights, labor/management relations, etc.)			