5.7 Applies technology to the delivery of standards-based instruction. (CO: 7.1 - 7.1.1, 7.5.3, 7.1.4, 7.1.2) (NETS 2a, 3a, 4a, 4b, 4c)

	Basic (1.0 - 1.9)	Developing (2.0 - 2.9)	Proficient (3.0 - 3.9)	Advanced (4.0)
A. Safe, Legal. Ethical Use (4a, 4c)	No evidence of this dimension OR demonstrates any of the following: a) unsafe use of technology (e.g., ineffective monitoring of student use of Internet), b) failure to follow district policy, or c) submission of evidence/observation of failure to follow copyright or fair use policies	Demonstrates awareness of safe and responsible use of technology and classroom procedures to implement school and district technology acceptable-use policies and data security plans through classroom assignments (e.g: using district permission slip before taping students); no evidence of inappropriate use (a, b, c) listed under "basic"	Consistently models all of the following for students and in his/er own use of technology: a) safe and responsible use, b) adherence without exception to all district policies and data security plans, and c) adherence to copyright and fair use policies	Meets all criteria for "proficient" and demonstrates advanced skills by anticipating problems/assisting student in acquiring effective use of technology, incorporating (into at least one lesson plan) procedures such as pre-teaching and/or explicit instruction on safe and responsible use of computers or other technology AND ethical, legal use such as copyright law
B. Uses & Manages Tools & Resources (3a)	No evidence of use of TECHNOLOGY TOOLS below **OR** can only demonstrate use of computer work station in word processing	Can use at least 50% of general tools listed below in development of standards-based lessons; may require assistance	Uses 75% of the general tools listed below and at least one example of a discipline tool in creation and delivery of standards based lessons with minimal assistance.	Meets criteria for "proficient" and uses tools that are emerging technologies or tools not introduced to at CSU-P in creation and delivery of standards based lessons
	TOOLS: Independent use of general hardware & peripherals such as presentation devices, PDA's, DVD/CD Writers, Smartboards/Promethean Boards, printers, laptop labs, IPods,			
	No evidence of use of educational software in instuction (e,g. *Reader Rabbit, Timeliner, Inspiration*) OR ineffective use of software (e.g., inability to demonstrate its use) OR inaccurate evaluation of software	Can accurately review software for quality and usability in class assignments, identifying quality, appropriate software for use in lesson plans (at least one)	Integrates a variety of educational software into standards-based lesson plans in more than one area of teaching responsibility;at least two examples must be demonstrated, one lesson must be taught and evaluated	Exceeds the criteria of "proficient" by implementing a variety of software for different purposes and needs in standards-based lessons
	No evidence of using the Internet in planning and implementing instruction OR selects Internet resources that are ineffective or inappropriate for the content chosen or developmental level of students	Develops instrucitonal plans that use the Internet, including one of the following: a) lesson plan utilizing activities from the www or input from the www that enhances the lesson (e.g., video, pictures) and b) webquest with developmentally appropriate web sites with content matched to standards	Demonstrates application of a variety of educational Internet sites and integrates them into standards-based lesson plans, including a) integration of effective input from the Internet in lesson plans for different content areas of responsibility and b) development of a webquest that meets Bernie Dodge's criteria	Meets criteria for "proficient" and utilizes complex applications of Internet for instructional purposes, for example online collaboration (networking) and podcasting

C. Creates and implements a plan to manage technology resources. (CO 7.1.2)	No evidence of dimension OR fails to plan or implement strategies to manage technology successfully	Demonstrates knowledge of at least three of the following in plans: Scheduling of technology, room arrangement to facilitate effective tech use, environmental control (sound, lighting), effective design of student work centers, managing technology with student demonstrations, plans for one and multi-computer classrooms, and demonstrations vs. student hands-on applications with technology, lap top use vs. computer lab procedures; "knowledge" requires details fo the physical environment, instructios for routines for student use, and teacher behavior	Develops lessons that show evidence of planning for a majority ofl the management of technology resources described included in "developing" AND implements them effectively, ensuring student engagement and minimal off task behavior	Meets criteria for "proficient" and demonstrates "advanced" skills by showing flexibility in technology management, documenting a change in technology management based on evaluation of lessons; describes back-up plans (includes on lesson plans, changes to these plans during lessons, orally describes back up plans when asked)

D. Embeds NETS Standards in Teaching	No evidence of knowledge of NETS (2007) standards or their use in teaching	Plans at least one lesson plan that is aligned with the NETS (2007) standards (See below); standard(s) must be identified in the plan	Plans and teaches a minimum of one lesson that addresses at least one NETS (2007) standard, teaches the lesson, and documents student outcome related to standard. NOTE: using technology in a lesson does not meet this standard	Plans and teaches skills in all six NETS standards, documenting student learning

NOTE: Assessment materials (e.g., Excel used for grading) should not be considered for this standard but is included in Standard 4.5.

Operationalization/Criteria:

Guidelines for Admission to Education:

1. Benchmark for admission includes: *Demonstrates developing skills at using technology to plan and implement standards-based instruction*
2. Following the rubric (above), a student should earn a rating of "developing" on most dimensions; "developing" is determined by observing plans, not observation of tool use; at admission, evidence for all but row 1 of dimension 2 (B) should be "developing." this is based on successful completion of ED 280/520
3. Complete the OVERALL rating for the standard by averaging the ratings on all dimensions.
3. Some students may not yet have taken ED 280/520; they would receive a rating of 1.0 if evidence is not included.

Evidence to be Evaluated:

Software evaluations, lesson plan(s) that embed technology applications/tools, teaching materials developed with technology, webquest, lesson plans describing management, web site created by student (possible)

Guidelines at Admission to Student Teaching:

1. Benchmark for admission includes: *Demonstrates developing skills at using technology to plan and implement standards-based instruction*
2. Following the rubric, student should earn a rating of "developing" on all dimensions; "developing" is determined by use of tools in cited in plans, not observation of tool use.
3. Complete the OVERALL rating for the standard by averaging the ratings on all dimensions.
3. Some students may not yet have taken ED 280/520; they would receive a rating of 1.0 if they do not include appropriate evidence.

Evidence to be Evaluated:

Software evaluations, lesson plan(s) that embed technology applications and tools, materials developed with technology, webquest, lesson plans describing management

Possible: web site created by student

Guidelines for Program Completion/Student Teaching:

1. Required for program completion are ratings of "proficient" on all dimensions of the standard.
2. Observe for both quality and variety of technology integration.
5. Evaluate plans, materials for students, and the teacher's implementation/management of the technology.
6. Evaluate across different curriculum areas of responsibility, including literacy.
7. Consistency = requires fluency/repetition, including documentation of competence in different content areas, with different lesson formats.
3. A possible Inventory narrative should describe an example of student performance: e.g., *In implementing her TWS, he used all of the following examples of technology: a webquest on World War I used as an anchor task that embedded edited video and audio, animation, and other complex media to motivate learning.*

Examples of Evidence:

Observation of teaching; lesson plans/lesson plan book, TWS, direct observations of teaching, interview with teacher (tool use/applications not observed), teacher's web site

Rationale:

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Fletcher-Flinn, C. M., & Gravatt, B. (1995). The efficacy of computer assisted instruction (CAI): A meta-analysis. *Journal of Educational Computing Research* , 219-241.

ISTE (2008). *National Educational Technology Standards (NETS•T) and Performance Indicators for Teachers* . Available at http://www.iste.org/Content/NavigationMenu/NETS/ForTeachers/2008Standards/NETS_T_Standards_Final.pdf.

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Ringstaff, C., & Kelley, L. (2002). *The learning return on our educational technology investment* . San Francisco: WestEd. Available at http://www.wested.org/cs/we/view/rs/619.

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Smaldino, S.E., & Lowther, D.L. (2007). *Instructional technology and media for learning* , 9th ed. Upper Saddle Rivers, NJ: Allyn & Bacon.

NETS Standards. (2007). Available at http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS_for_Students_2007.htm

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a.apply existing knowledge to generate new ideas, products, or processes.

b. create original works as a means of personal or group expression.

c. use models and simulations to explore complex systems and issues.

d. identify trends and forecast possibilities.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a.interact, collaborate, and publish with peers, interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

c. develop cultural understanding and global awareness by engaging with learners of other cultures.

d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. plan strategies to guide inquiry.

b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

d. process data and report results.

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

a. identify and define authentic problems and significant questions for investigation.

b. plan and manage activities to develop a solution or complete a project.

c. collect and analyze data to identify solutions and/or make informed decisions.

d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. advocate and practice safe, legal, and responsible use of information and technology.

b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

c. demonstrate personal responsibility for lifelong learning.

d. exhibit leadership for digital citizenship.