Nassau BOCES NYS Teacher Centers New York Institute of Technology

Authors:

Nassau BOCES: New York Institute of

Technology:

Patricia Iannacone Gene Silverman Stan Silverman

NYS Teacher Centers:

Valorie Catalano Robert Hazen Larrilee Jemiola Barbara Steinfeldt

NYS Virtual Learning Space Content Development Grant

Nassau BOCES, LEA

Contacts:

Fred Podolski, Nassau BOCES,
Department of Curriculum, Instruction and Technology, (516) 396-2257

podolski@mail.nasboces.org

Stan Silverman, New York Institute of Technology, (631) 348-3317 <u>stan@nyit.edu</u>

I. The Four Levels of Online Courses

Online courses can be classified into four categories, which range across the spectrum in terms of instructor involvement and participation.

- **Programmed self paces** an instructional designer creates the course and the participant enters the instructional environment and moves through the material with no instructor interaction. Participants normally take computer or self graded assessments as they move through the material.
- Facilitated Courses an instructional designer creates the structure of the class and the course is turned over to a facilitator to help guide the participants through the course materials. The facilitator can help shape the discussions and provide direction for project work but does not modify the instructional platform and is not the content expert.
- Instructed Courses These courses are created and taught by the instructor and utilize high levels of interaction between the instructor and participants. The scope, sequence and timing of the course are dynamically modified to meet the class needs. The course demonstrates high levels of discourse between and among all members of the class learning community. The instructor is the content expert.
- The MUSE Courses At the highest level of interaction is the MUSE level or Oxfordian online delivery system. In this configuration the instructor acts as the student's MUSE providing inspiration and guidance to the student. Typically the instructor and student work to identify areas of need and the structure of the online experience is built around maximizing the use of the tools and interactions to help the student meet the expected outcomes. This type of instruction is normally characterized by a high level of discourse using a combination of synchronous and asynchronous tools to insure high levels of connectivity between the students and instructor. It reflects strategies of inquiry-based learning, action research and self-directed learning.

II. Modalities for Online Courses

There are generally three modalities of delivery for the facilitated, instructed and muse types of courses:

- The fully online environment is which the student instruction, project work and all communications are done via a virtual delivery system. The system may consist of synchronous tools like chat and video and the asynchronous tools of email and threaded discussions. The course is designed so that the learning outcomes can be achieved and the equivalent seat time can be met.
- The hybrid course environment is a mix of traditional face-to face instruction and online instruction. The instructor determines what elements of the course are best delivered online and divides the instruction and project activities so that the objectives and appropriate seat time equivalents are met.
- Enhanced course environment is a face-to-face class, which meets its entire seat time hours, but in which the instructor creates an envelope of instructional support and classroom exchanges using the online tool set.

III. Domains and Standards for Online Courses

5	Seven Domains that organize Standards for Online Courses are presented.
1.	Curriculumpage 6
	Rating Scale: 4 point
	Standards-basedResearched-based
	 Sensitivity to diversity
	• Depth and breadth of Content (Scope and Sequence)
2.	Pedagogypage 7
	Rating Scale: Muse/Instructor Facilitated/Self – Taught (Muse = 4, Instructed = 3, Facilitated = 2, Self – Taught = 1)
	• Models good practice such as constructivism, reflection (Best practices)
	• Authentic Learning (multiple modalities and learning styles, project and
	inquiry based)
	 Opportunities for high-level thinking
	Evidence of planning
	Design of Instruction appropriate to the online environment
	Assessment of student learning embedded in instruction
	• Uses data to monitor and adjust instruction (Data Utilization)
3.	Learner/Instructor Interaction page 10
	Rating Scale: Muse/Instructor Facilitated/Self – Taught (Muse = 4, Instructed = 3, Facilitated = 2, Self – Taught = 1)
	• Interaction between Instructor and Student, Instructor and Class, In
	Among Students, Student in a group, Group to Group, Instructor to
	Group, Group to Instructor
	 Variety of Sharing Modalities
	 Quality and timeliness of Instructors feedback

Evidence of an active learning community

<i>4.</i>	Assessment of Participant Learning page 12
	Rating Scale: 4 point
	Impact on Practice
	 Provides formative and summative feedback
	Assessments align to outcomes
	Provides exemplars
	Opportunities for participants to assess their won learning
	Quality is defined
<i>5.</i>	Presentation, Structure and Organizationpage 14
	Rating Scale: 4 point Rubric
	Syllabi and Outlines
	• Use of Multimedia
	Navigation and Layout
	Timing and Pacing
	Online Environment
	 Goals and Objectives
	Developmental Levels
	 Outcomes-based
6.	Administration – Systems Supports
	Rating Scale: 4 Point
	Copyright Information
	Technical Support and Orientation
	• Security
	Point of Authority/Credentials of Institution
	Ongoing Course Evaluation
	Course Registration

7. Technical Management......page 20

Rating Scale: 4 point

- ADA Compliant (508)
- Admission and Records Administration
- System Capacity
- User Interface Compatibility
- Back up process
- Redundancy
- Appropriateness of the tool sets

1. Curriculum					
Page 1 of 1	4	3	2	1	
Standards-based	Meets or exceeds the National and New York State standards in all subject areas	Meets the National and New York State standards in the ELA and MST subject areas	Meets the New York State standards in all subject areas	Does not align National or New York State Standards	
Research-based	Supported by current rigorous quantitative/qualitative research, Course reviewed and endorsed by both the Local Education Agency(LEA) and the state Department of Education (DOE)	Supported by current rigorous quantitative/qualitative research	Supported by current local best practices	Not supported by current research	
Sensitivity to diversity	Material has been reviewed using The NYSED Office of State Assessment. New York State Sensitivity Review Guidelines and has shown a high degree of sensitivity to different groups	Material has been reviewed by a committee of educators and shows sensitivity to different groups	Material has been reviewed by the course instructor and shows sensitivity to different groups	Material has not been reviewed	
Depth and Breadth of Content (Scope and Sequence)	 Course is comparable in thoroughness, depth, and breadth to traditionally delivered courses Course is designed to benefit from the unique applications for online delivery 	Course is comparable in thoroughness, depth, and breadth to traditionally delivered courses	Course is comparable in depth and breadth to traditionally delivered courses	Course is dissimilar in thoroughness, depth, and breadth to traditionally delivered courses	

2. Pedagogy					
Page 1 of 3	Muse 4	Instructed 3	Facilitated 2	Self-taught 1	
	Models best practices such as constructivism, inquiry, reflection and sharing of collective expertise to support learning	Discussion & dialog to foster meaningful thinking and learning	Discussion & dialog to foster meaningful thinking and learning	Highly structured	
Best	Discussion & dialog to foster meaningful thinking and learning	Project work is individually mentored and supported	Facilitator offers recommendations for improved performance		
practices	Project work is individually mentored and supported	Constructive criticism is integral to the class culture	 Information flow is predominantly from facilitator to student and 		
	Constructive criticism is integral to the class culture	Information flow is bi- directional between student	between students		
	Information flow is bi-directional between student and instructor	and instructor			
	Teaches using multiple modalities and addresses various learning styles	Addresses and supports individual student needs, skills, and knowledge	Research and problem solving skills are addressed through project and inquiry based	 Instruction is programmed with no modification 	
Authentic Learning (multiple modalities and	Addresses and supports individual student needs, skills, and knowledge	Research and problem solving skills are addressed through project and inquiry based teaching & learning	 teaching & learning Activities and projects are rooted in classroom experiences 	for modifications based on learning environment	
learning styles, project and inquiry based)	Research and problem solving skills are addressed through project and inquiry based teaching & learning	Activities and projects are rooted in classroom experiences			
	Activities and projects are rooted in classroom experiences				

2. Pedagogy					
Page 2 of 3	Muse	Instructed	Facilitated	Self-taught	
Opportunities for higher-	The course is framed around the use of constructive essential questions created by the participants	The course is framed around the use of constructive essential questions created by the instructor and modified by interaction with the participants	The course is framed around the use of objectives and outcomes created by the instructor	The course is centered at the skills acquisition level	
level thinking	Course activities are anchored in higher level thinking and meta cognition developed as a joint activity between instructor and participants	Courses are anchored in higher level thinking and meta cognition	There is emphasis on pure skill or fact acquisition		
	There is little emphasis on pure skill or fact acquisition.	There is little emphasis on pure skill or fact acquisition			
	Course has a viable, powerful organizing center mutually agreed upon by instructors and participants	Course has a viable, powerful organizing center	Course has a viable, powerful organizing center	 The course is pre-programmed with no 	
Evidence of	Sequence of material is powerful, Scaffolding active meaningful learning which fosters metacognition	Sequence of material is powerful, Scaffolding active meaningful learning which fosters metacognition	Sequence of material is powerful, Scaffolding active meaningful learning which fosters metacognition	options	
planning	 Instructional goals, objectives, strategies, and evaluation are aligned to state/national standards Participant are involved with the planning of the course 	Instructional goals, objectives, strategies, and evaluation are aligned to state/national standards	Instructional goals, objectives, strategies, and evaluation are aligned to state/national standards		

2. Pedagogy					
Page 3 of 3	Muse	Instructed	Facilitated	Self-taught	
Design of Instruction	 The instruction is student centered with the online environment designed to be flexible Capitalize on what is known about how participants prefer to learn The course provides alternative strategies based on the progress of the participants 	Appropriate to the online environment, learning materials and opportunities designed to be capitalize on what is known about how participants prefer to learn	Appropriate to the online environment, learning materials and opportunities designed to be completed with in a specific timeframe	The instruction is programmed and the participant follows a proscribed learning path The instruction is programmed and the participant follows a proscribed learning path	
Assessment	 Assessment of student learning embedded in instruction, several forms of authentic assessments chosen by student based on knowledge of preferred learning style & modality Clearly defined rubrics are given for all formal assignments 	 Various types of assessment chosen by instructor Clearly defined rubrics are given for all formal assignments 	Limited types of assessment chosen by instructor	Assessment done by participant or by computer	
Data Utilization	 Uses participant data to monitor and adjust instruction Students and instructor use data to adjust their learning and the course design 	Uses participant data to monitor instruction	Collects participant data but does not use data to monitor and adjust instruction	Collects participant data but does not use data to monitor and adjust instruction	

3. Learner/Instructor Interaction					
Page 1 of 2	Muse 4	Instructed 3	Facilitated 2	Self-taught 1	
Between	• There are clear indications of communications between instructors and students focused on guiding questions and professional criticism. The ratio of student postings to faculty postings approaches 50%	• There is a balance of exchanges with the instructor representing 25-35% of the responses	• The instructor serves as a moderator and keeps the focus of the postings on the specific assignments. The instructor postings represent 15-20% of the total postings	There is little or no interaction with an instructor. Students complete steps and progress to the next level	
Instructor and Student, Instructor and Class, In among Students,	Communications among students are focused and are defined by the instructional context. Students define and direct the direction of discourse	Communications amongst and between students are focused on the instructional goals and assignments defined by the instructor	Communications amongst and between students is centered directly around the proscribed assignments	Group activities are only used for social interactions	
Students in a group, Group to Group, Instructor to Group, Group to Instructor	 Group communications are active representing more than 33% of the exchanges and demonstrate a free flow of ideas and mutual support Students create and engineer modalities as needed for learning. 	Group communications are active representing more than 33% of the postings. The postings are centered in specific responses to the assignments	Group communications are used to develop community		

3. Learner/Instructor Interaction				
Page 2 of 2	Muse 4	Instructed 3	Facilitated 2	Self-taught 1
Variety of Sharing Modalities Threaded discussion, email, chat, videoconferencing, instant messaging, telephone, appropriate use of synchronous/ synchronous communication	 The use of synchronous and/or asynchronous components of the class is matched to the learning experience Synchronous activities are used only when there is full consent of the class or there has been sufficient time for participants to set their schedules 	 The use of synchronous and/or asynchronous components of the class is matched to the learning experience Synchronous activities are used only when there is full consent of the class or there has been sufficient time for participants to set their schedules 	Threaded discussions, chats are used in group and class activities	There is little discourse between instructor and student
Quality and timeliness of Instructor's feedback	Valuable and constructive feedback was provided within 2 days	Effective feedback was provided within 3 days	Useful feedback was provided within 5 days	Feedback is limited and is normally system generated
Evidence of an active learning community	Posts were numerous, feedback is specific, frequent dialog and discussion are used to foster trust and teamwork between instructor and student and among students	Posts are several, feedback is useful, dialog and discussion are evident	Posts are few, feedback was general, little dialog and discussion is evident	 Posts were infrequent, feedback was vague Dialog and discussion not utilized

4. Assessment of Participant Learning					
Page 1 of 2	4	3	2	1	
Impact on Practice	 Participant guides their class in innovative explorations of multidisciplinary projects Balanced and strategic use of direct teaching and project-based teaching Integration of alternative modes of student assessment Implementation of integrated curriculum 	 Participant focuses on higher-order thinking skills Experimentation with interdisciplinary project-based instruction Experimentation with flexible student grouping 	 Participant employs some instructional activities that are individualized and self-paced Participant beginning to have students work on collaborative projects 	Participant experiments with open-ended activities designed for small group and/ or collaborative group based instruction	
Feedback	Instructors' ongoing feedback provides timely, specific, and authentic response meant to inform change in participant behavior	Instructors' formative & summative feedback is timely and practical	Instructors' summative feedback is general and provided at the end of the course	No instructor feedback	
Assessments	Evidence of participants constructing knowledge, utilizing critical thinking, generating product in all assignments	 Evidence of participants constructing knowledge and utilizing critical thinking in several assignments Culminating assessment 	Evidence of participants constructing knowledge and utilizing critical thinking	 No evidence of participants constructing knowledge and utilizing critical thinking in assignments Misaligned 	
	Culminating assessment which aligns with outcomes	which aligns with outcomes		culminating assessment	

4. Assessment of Participant Learning						
Page 2 of 2	4	3	2	1		
Exemplars	4 or more exemplars provided by instructor	• 2 – 3 exemplars provided by instructor	One exemplar provided by instructor	No exemplars provided by instructor		
Quality	Utilizes a rubric with specific performance characteristics arranged in levels indicating the degree to which a standard has been met	Utilized a checklist with points assigned to each task	Utilizes traditional methods of assessing quality of student work, i.e. exams	Quality is not defined		
Self-Assessment	Participants choose from a list offering several methods to assess their own learning	A checklist and reflective journal are provided for participants to assess their own learning	A checklist is provided for participants to assess their own learning	No student self assessment		

	5. Presentation, Structure and Organization				
Page 1 of 3	4	3	2	1	
Syllabi and Outline	 Clearly stated and accessible via print and online Instructional expectations defined Participant interaction expectation defined Timelines and deadlines Use of Synchronous activities clearly stated Additional resources stated Threshold for award of credit clearly defined 	 Clearly stated and accessible via print and online Instructional expectations defined Timelines and deadlines Additional resources stated Threshold for award of credit clearly defined 	 Clearly stated and accessible via print Instructional expectations defined Additional resources stated Threshold for award of credit clearly defined 	 Clearly stated and accessible via print Instructional goals stated Threshold for award of credit clearly defined 	
Use of Multimedia	 Media is appropriate to varied bandwidths Media supports instructional goals and compliments instructional activities Media runs smoothly on all standard platforms and current versions of browsers Media is diverse and reflects a diverse population in a proactive manner Media is used to increase the participants grasp of concepts Media has appropriate copyright notations and releases 	 Media is appropriate to varied bandwidths Media supports instructional goals and interest building Media runs smoothly on current versions of browsers Media is diverse and reflects a diverse population Media is used to increase the participants grasp of concepts Media has appropriate copyright notations and releases 	 Media is appropriate to high speed connections (T1, DSL, ISDN) Media is used for interest building Media runs smoothly on current versions of browsers Media has associated credits 	 Media runs intermittently over high speed networks Media is used as "eyecandy" not related to the objectives of the course Media portrays members of any community in a negative light 	

	5. Presentation, Structure and Organization					
Page 2 of 3	4	3	2	1		
Navigation and Layout	 Course is easily navigated by keyboard, mouse or accessible device and is user friendly All pages are designed for computer screens and display with all browsers The various synchronous and asynchronous components are embedded in the front pages Pages are in an organized root structure All major components are reached via 2 	 Course is easily navigated All pages are designed for computer screens and display on current browsers All major components are reached via 3 mouse clicks or less Layout of pages promotes interaction 	 Course can be navigated All pages are designed for computer screens and may require scrolling Layout is structured 	 Difficult navigation Disorganized pages Unappealing layout that distracts from the learning 		
Timing and Pacing	The course timing and pacing is appropriate to meet the instructional goals and allow for participant differences. There are differentiated experiences for various learners	The course timing and pacing is appropriate to meet the instructional goals and is varied to meet the general needs of the class	The timing and pacing is set and meets the needs of the highest performing participants	Timing and pacing is inappropriate for the participant population		

5. Presentation, Structure and Organization					
Page 3of 3	4	3	2	1	
	Technical requirements for student access are documented. Criteria for students' technical knowledge are published & assessed	Technical requirements for student access are documented	Technical requirements for student access are documented	Technical requirements for student access are documented	
Online	Access to learning resources (books, periodicals, etc.) is assured	Criteria for students' technical knowledge are published & assessed	Criteria for students' technical knowledge are published & assessed	Criteria for students' technical knowledge are published	
Environ- ment	Online and offline activities are available to the student, links to additional resources are embedded in online content to allow access to further information and supporting materials on other sites	 Access to learning resources (books, periodicals, etc.) is assured 	Online and offline activities are available to the student		
	Content is constructed to allow the different parts of the course to interact and integrate	Online and offline activities are available to the student			
Goals and Objectives	Instructional and learning goals are clearly defined for student	Instructional and learning goals are defined for student	Learning goals are defined for student	Goals are not specified	
Develop- mental Levels	Material addresses ages and stages of learners- participants engage in "metalearning"-learning how to learn online	Material addresses limited range of ages/stages of learners	Material addresses one level of learners	Material does not consider age and stage of learner	
Outcomes-	Evaluation is timely, fair, and based on local/state/national standards	 Evaluation is timely, fair, and based on local/state/national standards 	Evaluation is timely, fair, and based on local/state/national standards	Outcomes not specified	
based	Verification of student participation/performance procedures in place, instruction designed to have produced specific, lasting results in participants by end of course	Verification of student participation/performanc e procedures in place			

6. Administration-Systems Support					
Page 1 of 3	4	3	2	1	
Copyright Information	 The system provides warnings in regards to the misuse of copyrighted materials and links to fair use and copyright information The ability to add meta tag information is part of the posting process 	 The system provides links to fair use and copyright information The ability to add meta tag information is part of the posting process 	The ability to add meta tag information is part of the posting process	There is no overt support for the proper use of copyrighted materials	
Technical Support and Orientation	 Printed manuals, online technical support resources, CD or DVD training and online and phone technical are available Tech support is accessible for all members of the learning community Send updates on system changes to all users before changes are implemented 	 Printed manuals, online technical support resources, CD or DVD training and online support is available Tech support is accessible for all members of the learning community Send updates on system changes to all users before changes are implemented 	 Printed manuals, online technical support resources, are available Technical support is accessible for all members of the learning community 	Printed materials are available	
Security (Who can access and/or read)	 Provides a detailed list of all super users and their access The instructor is provided with a list of all individuals who have access to their courses The instructor has the ability to set participant access to their courses 	 The instructor is provided with a list of all individuals who have access to their courses The instructor has the ability to set participant access to their courses 	The instructor has the ability to set participant access to their courses	The system is open and guests have access to all materials and discussion areas	

6. Administration-Systems Support					
Page 2 of 3	4	3	2	1	
	Biography available online with in depth resumes showing experience in the course content	Biography available online with a resume showing experience in the course content	Biography available online	Instructor has gone through a training program on delivering online courses	
Point of Authority/ Credentials of Institution	Instructor holds credentials in the area of instruction related to the course	Instructor holds instructional credentials	Instructor has gone through a training program on delivering online courses	Provider organization not clearly identified	
	 Instructor has gone through a training program on delivering courses which includes instruction in the pedagogy of online delivery 	Instructor has gone through a training program on delivering online courses	Provider organization clearly identified		
	 Provider Organization clearly identified and endorsed by BOCES, higher education institutions, or Teacher Centers 	Provider organization clearly identified			

Ongoing Course Evaluation Publishes all course evaluations Publishes selected course evaluations Evidence that evaluation data is used for screening instructors for future assignments Evidence that evaluation data and course data is used to inform the professional development system for the instructors Participants can enroll via email, fax, USPS and phone Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of all Participants are notified of all Participants are notified of all Provides mechanism for post course evaluation Publishes selected course evaluations Publishes selected course evaluations Participants can enroll via evaluation data is used for screening instructors for future assignments Participants can enroll via email, fax, USPS and phone Participants can enroll via email, fax, USPS and phone Participants are notified of all Participants are notified of all Participants are notified of Participants are notified of Participants are notified of	6. Administration-Systems Support					
Ongoing Course Evaluation Publishes all course evaluations Publishes all course evaluations Evidence that evaluation data is used for screening instructors for future assignments Evidence that evaluation data and course data is used to inform the professional development system for the instructors Participants can enroll via email, fax, USPS and phone Participants Participants can enrollment automatically sent to all participants Provides mechanism for post course evaluation Provides mechanism for post course evaluation Provides mechanism for post course evaluation Publishes selected course evaluations Evidence that evaluation data and course data is used for screening instructors for future assignments Evidence that evaluation data and course data is used to inform the professional development system for the instructors Participants can enroll via email, fax, USPS and phone Participants can enroll via email, fax, USPS and phone Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of all Participants are notified of all Participants are notified of of all	Page 3 of 3	4	3	2	1	
Ongoing Course Evaluation Publishes all course evaluations Publishes selected course evaluations Publishes selected course evaluations Evidence that evaluation data is used for screening instructors for future assignments Evidence that evaluation data and course data is used to inform the professional development system for the instructors Participants can enroll via email, fax, USPS and phone Participants Participants are notified of all Publishes selected course evaluations Evaluation Publishes selected course evaluations data is evaluation data is used for screening instructors for future assignments Participants can enroll via email, fax, USPS and phone Participants can enroll via email, fax, USPS and phone Participants Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of Participants are notified of Cancelled courses are listed					No formal evaluation systems	
Ongoing Course Evaluation • Publishes all course evaluations • Evidence that evaluation data is used for screening instructors for future assignments • Evidence that evaluation data and course data is used to inform the professional development system for the instructors • Participants can enroll via email, fax, USPS and phone • Confirmation of enrollment automatically sent to all participants • Participants are notified of all • Participants are notified of all • Publishes selected course evaluations • Evidence that evaluation data is used for screening instructors for future assignments • Participants can enroll via email, fax, USPS and phone • Confirmation of enrollment automatically sent to all participants • Participants are notified of all • Participants are notified of all • Participants are notified of • Concelled course evaluations • Publishes selected course evaluations • Evidence that evaluation data is used for screening instructors for future assignments • Participants can enroll via email, fax, USPS and phone • Participants can enroll via email, fax, USPS and phone • Confirmation of enrollment automatically sent to all participants • Participants are notified of • Cancelled courses are listed				evaluations for selected		
 Evidence that evaluation data is used for screening instructors for future assignments Evidence that evaluation data and course data is used to inform the professional development system for the instructors Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of all Evidence that evaluation data is used for screening instructors for future assignments Participants can enroll via email, fax, USPS and phone Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of Cancelled courses are listed 	9 9	Publishes all course evaluations		Courses		
 Evidence that evaluation data and course data is used to inform the professional development system for the instructors Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants can enroll via email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants can enroll via USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of Cancelled courses are listed 		used for screening instructors for	data is used for screening instructors for future			
fax, USPS and phone email, fax, USPS and phone Confirmation of enrollment automatically sent to all participants Participants are notified of all email, fax, USPS and phone Confirmation of enrollment automatically sent to all enrollment automatically sent to all participants Confirmation of enrollment automatically sent to all participants Cancelled courses are listed		course data is used to inform the professional development system	assignments			
automatically sent to all automatically sent to all participants participants participants sent to all participants sent to all participants confirmation of enrollment • Participants are notified of all • Participants are notified of • Cancelled courses are listed			*		enroll via USPS and	
 Participants are notified of all Participants are notified of Cancelled courses are listed 		automatically sent to all	automatically sent to all	enrollment automatically	automatic confirmation of	
Course the state the state the state that the state		course cancellations before the	all course cancellations before the published start	Cancelled courses are listed on the Web site	Cinomient	
Course data is tracked by district and individual participant Course data is tracked by district and individual participant Course data is tracked by district and individual participant			district and individual			
Enrollment data is sent to OLA in flat field formats			participant			
Interfaces with NYSED portal		Interfaces with NYSED portal				

7. Technical Management					
Page 1 of 4	4	3	2	1	
ADA Compliant (508)	• Fully 508 compliant (see attachment A)	 All materials can be read via screen readers, alternative text and captioning is provided for all multimedia elements, and all information is available via assistive technology Students can input information via a wide range of assistive devices 	All materials can be read via screen readers, alternative text and captioning is provided for all multimedia elements	There are no efforts to make the major portions of the content accessible to all learners	
Admission and Records Administration	 The system provides back end support to exchange directly data in XML or flat field formats with standard instructional tracking and enrollment systems All course files are archived and available for at 1 year 	 The system provides back end support to exchange data directly in XML or flat field formats with standard instructional tracking and enrollment systems All course files are archived and available for at ½ year 	 The system maintains records, which can be converted into XML, or flat field formats. Protocol and fields are provide to assist in data transfers to standard instructional tracking and enrollment systems All course files are archived and available for at ½ year 	 The system maintains records in a proprietary format. Protocol and fields are provide to assist in data transfers to standard instructional tracking and enrollment systems All course files are archived and available for at ½ year 	

7. Technical Management					
Page 2 of 4	4	3	2	1	
System Capacity	 The system has the at least 5 megabytes of storage available per course The system reports storage utilization to the end user administrators 	 The system has the at least 2 megabytes of storage available per course The system reports storage utilization to the end user administrators 	 The system has the at least 1 megabytes of storage available per course The system reports storage utilization to the end user administrators 	The system has less than 1 megabytes of storage available per course	
User Interface Compatibility	 The system provides back end support to exchange directly data in XML or flat field formats with standard instructional tracking and enrollment systems All course files are archived and available for at 1 year 	 The system provides back end support to exchange data directly in XML or flat field formats with standard instructional tracking and enrollment systems. All course files are archived and available for at ½ year 	 The system maintains records, which can be converted into XML, or flat field formats. Protocol and fields are provide to assist in data transfers to standard instructional tracking and enrollment systems All course files are archived and available for at ½ year 	 The system maintains records in a proprietary format. Protocol and fields are provide to assist in data transfers to standard instructional tracking and enrollment systems All course files are archived and available for at ½ year 	

7. Technical Management					
Page 3 of 4	4	3	2	1	
Back up process	Full data backups are done daily	Backups are done bi-weekly	Back-ups are done weekly	There is no data back up	
Source Code and Encryption keys	Source Code is open architecture and the code is held in escrow	The source code is held in escrow	The source code is proprietary	The source code is unavailable	
Redundancy and capacity	The system host has redundant connections to the Internet and has the capacity to handle 10% of the total end user population with simultaneous connections	The system host has redundant connections to the Internet and has the capacity to handle 5% of the total end user population with simultaneous connections	The system host has redundant connections to the Internet and has the capacity to handle 2% of the total end user population with simultaneous connections	The system has a single connection to the Internet and has the capacity to handle less than 1% of the total end user population with simultaneous connections	
Appropriateness of the tool sets	 The tool set is standards based and can handle synchronous and asynchronous communications Standard multimedia formats for all operating systems and standard browsers are supported 	 The tool set is standards based and can handle synchronous and asynchronous communications Standard multimedia formats for Mac and Windows and standard browsers are supported 	 The tool set is standards based and can handle synchronous communications Standard multimedia formats for Mac and Windows and standard browsers are supported 	 The tool set can handle synchronous communications Standard multimedia formats for Mac and Windows and standard browsers are supported 	

7. Technical Management: Attachment A (ADA 508 Compliant)

Page 4 of 4

Pages shall be designed to avoid causing the screen to flicker with a a) The text information associated with a non-text element should, when frequency greater than 2 Hz and lower than 55 Hz. possible, communicate the same information as its associated element. A text-only page, with equivalent information or functionality, shall be a) This provision requires that when audio presentations are available on a k) multimedia web page, the audio portion must be captioned provided to make a web site comply with the provisions of these standards, when compliance cannot be accomplished in any other way. Equivalent alternatives for any multimedia presentation shall be The content of the text-only page shall be updated whenever the primary b) synchronized with the presentation. page changes. Web pages shall be designed so that all information conveyed with color When pages utilize scripting languages to display content, or to create c) is also available without color, for example from context or markup. interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology. d) Documents shall be organized so they are readable without requiring an associated style sheet. When a web page requires that an applet, plug-in or other application be m) present on the client system to interpret page content, the page must Redundant text links shall be provided for each active region of a serverprovide a link to a plug-in or applet that complies with \$1194.21(a) e) through (l). side image map. Client-side image maps shall be provided instead of server-side image When electronic forms are designed to be completed on-line, the form f) n) maps except where the regions cannot be defined with an available shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission geometric shape. of the form, including all directions and cues. Row and column headers shall be identified for data tables. g) A method shall be provided that permits users to skip repetitive o) Markup shall be used to associate data cells and header cells for data h) navigation links. tables that have two or more logical levels of row or column headers. When a timed response is required, the user shall be alerted and given p) sufficient time to indicate more time is required. Frames shall be titled with text that facilitates frame identification and i) navigation.