

Standards for Online Learning September, 2002

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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

Seven Domains that organize Standards for Online Courses are presented.

1. Curriculum.....page 6

Rating Scale: 4 point

- Standards-based
- Researched-based
- Sensitivity to diversity
- Depth and breadth of Content (Scope and Sequence)

2. Pedagogy.....page 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

4. 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

5. Presentation, Structure and Organization..... page 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..... page 17

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	<ul style="list-style-type: none"> Meets or exceeds the National and New York State standards in all subject areas 	<ul style="list-style-type: none"> Meets the National and New York State standards in the ELA and MST subject areas 	<ul style="list-style-type: none"> Meets the New York State standards in all subject areas 	<ul style="list-style-type: none"> Does not align National or New York State Standards
Research-based	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> Supported by current rigorous quantitative/qualitative research 	<ul style="list-style-type: none"> Supported by current local best practices 	<ul style="list-style-type: none"> Not supported by current research
Sensitivity to diversity	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Material has been reviewed by a committee of educators and shows sensitivity to different groups 	<ul style="list-style-type: none"> Material has been reviewed by the course instructor and shows sensitivity to different groups 	<ul style="list-style-type: none"> Material has not been reviewed
Depth and Breadth of Content (Scope and Sequence)	<ul style="list-style-type: none"> Course is comparable in thoroughness, depth, and breadth to traditionally delivered courses Course is designed to benefit from the unique applications for online delivery 	<ul style="list-style-type: none"> Course is comparable in thoroughness, depth, and breadth to traditionally delivered courses 	<ul style="list-style-type: none"> Course is comparable in depth and breadth to traditionally delivered courses 	<ul style="list-style-type: none"> 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
Best practices	<ul style="list-style-type: none"> • Models best practices such as constructivism, inquiry, reflection and sharing of collective expertise to support learning • Discussion & dialog to foster meaningful thinking and learning • Project work is individually mentored and supported • Constructive criticism is integral to the class culture • Information flow is bi-directional between student and instructor 	<ul style="list-style-type: none"> • Discussion & dialog to foster meaningful thinking and learning • Project work is individually mentored and supported • Constructive criticism is integral to the class culture • Information flow is bi-directional between student and instructor 	<ul style="list-style-type: none"> • Discussion & dialog to foster meaningful thinking and learning • Facilitator offers recommendations for improved performance • Information flow is predominantly from facilitator to student and between students 	<ul style="list-style-type: none"> • Highly structured
Authentic Learning (multiple modalities and learning styles, project and inquiry based)	<ul style="list-style-type: none"> • 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 teaching & learning • Activities and projects are rooted in classroom experiences 	<ul style="list-style-type: none"> • Addresses and supports individual student needs, skills, and knowledge • Research and problem solving skills are addressed through project and inquiry based teaching & learning • Activities and projects are rooted in classroom experiences 	<ul style="list-style-type: none"> • Research and problem solving skills are addressed through project and inquiry based teaching & learning • Activities and projects are rooted in classroom experiences 	<ul style="list-style-type: none"> • Instruction is programmed with no modification for modifications based on learning environment

2. Pedagogy

Page 2 of 3	Muse	Instructed	Facilitated	Self-taught
Opportunities for higher-level thinking	<ul style="list-style-type: none"> The course is framed around the use of constructive essential questions created by the participants Course activities are anchored in higher level thinking and meta cognition developed as a joint activity between instructor and participants There is little emphasis on pure skill or fact acquisition. 	<ul style="list-style-type: none"> The course is framed around the use of constructive essential questions created by the instructor and modified by interaction with the participants Courses are anchored in higher level thinking and meta cognition There is little emphasis on pure skill or fact acquisition 	<ul style="list-style-type: none"> The course is framed around the use of objectives and outcomes created by the instructor There is emphasis on pure skill or fact acquisition 	<ul style="list-style-type: none"> The course is centered at the skills acquisition level
Evidence of planning	<ul style="list-style-type: none"> Course has a viable, powerful organizing center mutually agreed upon by instructors and participants Sequence of material is powerful, Scaffolding active meaningful learning which fosters metacognition Instructional goals, objectives, strategies, and evaluation are aligned to state/national standards Participant are involved with the planning of the course 	<ul style="list-style-type: none"> Course has a viable, powerful organizing center Sequence of material is powerful, Scaffolding active meaningful learning which fosters metacognition Instructional goals, objectives, strategies, and evaluation are aligned to state/national standards 	<ul style="list-style-type: none"> Course has a viable, powerful organizing center Sequence of material is powerful, Scaffolding active meaningful learning which fosters metacognition Instructional goals, objectives, strategies, and evaluation are aligned to state/national standards 	<ul style="list-style-type: none"> The course is pre-programmed with no options

2. Pedagogy

Page 3 of 3	Muse	Instructed	Facilitated	Self-taught
Design of Instruction	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Appropriate to the online environment, learning materials and opportunities designed to be capitalize on what is known about how participants prefer to learn 	<ul style="list-style-type: none"> Appropriate to the online environment, learning materials and opportunities designed to be completed with in a specific timeframe 	<ul style="list-style-type: none"> The instruction is programmed and the participant follows a proscribed learning path
Assessment	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Various types of assessment chosen by instructor Clearly defined rubrics are given for all formal assignments 	<ul style="list-style-type: none"> Limited types of assessment chosen by instructor 	<ul style="list-style-type: none"> Assessment done by participant or by computer
Data Utilization	<ul style="list-style-type: none"> Uses participant data to monitor and adjust instruction Students and instructor use data to adjust their learning and the course design 	<ul style="list-style-type: none"> Uses participant data to monitor instruction 	<ul style="list-style-type: none"> Collects participant data but does not use data to monitor and adjust instruction 	<ul style="list-style-type: none"> 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
<p>Between Instructor and Student, Instructor and Class, In among Students, Students in a group, Group to Group, Instructor to Group, Group to Instructor</p>	<ul style="list-style-type: none"> • 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% • Communications among students are focused and are defined by the instructional context. Students define and direct the direction of discourse • 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. 	<ul style="list-style-type: none"> • There is a balance of exchanges with the instructor representing 25-35% of the responses • Communications amongst and between students are focused on the instructional goals and assignments defined by the instructor • Group communications are active representing more than 33% of the postings. The postings are centered in specific responses to the assignments 	<ul style="list-style-type: none"> • 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 • Communications amongst and between students is centered directly around the proscribed assignments • Group communications are used to develop community 	<ul style="list-style-type: none"> • There is little or no interaction with an instructor. Students complete steps and progress to the next level • Group activities are only used for social interactions

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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Threaded discussions, chats are used in group and class activities 	<ul style="list-style-type: none"> There is little discourse between instructor and student
Quality and timeliness of Instructor's feedback	<ul style="list-style-type: none"> Valuable and constructive feedback was provided within 2 days 	<ul style="list-style-type: none"> Effective feedback was provided within 3 days 	<ul style="list-style-type: none"> Useful feedback was provided within 5 days 	<ul style="list-style-type: none"> Feedback is limited and is normally system generated
Evidence of an active learning community	<ul style="list-style-type: none"> Posts were numerous, feedback is specific, frequent dialog and discussion are used to foster trust and teamwork between instructor and student and among students 	<ul style="list-style-type: none"> Posts are several, feedback is useful, dialog and discussion are evident 	<ul style="list-style-type: none"> Posts are few, feedback was general, little dialog and discussion is evident 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Participant focuses on higher-order thinking skills Experimentation with interdisciplinary project-based instruction Experimentation with flexible student grouping 	<ul style="list-style-type: none"> Participant employs some instructional activities that are individualized and self-paced Participant beginning to have students work on collaborative projects 	<ul style="list-style-type: none"> Participant experiments with open-ended activities designed for small group and/ or collaborative group based instruction
Feedback	<ul style="list-style-type: none"> Instructors' ongoing feedback provides timely, specific, and authentic response meant to inform change in participant behavior 	<ul style="list-style-type: none"> Instructors' formative & summative feedback is timely and practical 	<ul style="list-style-type: none"> Instructors' summative feedback is general and provided at the end of the course 	<ul style="list-style-type: none"> No instructor feedback
Assessments	<ul style="list-style-type: none"> Evidence of participants constructing knowledge, utilizing critical thinking, generating product in all assignments Culminating assessment which aligns with outcomes 	<ul style="list-style-type: none"> Evidence of participants constructing knowledge and utilizing critical thinking in several assignments Culminating assessment which aligns with outcomes 	<ul style="list-style-type: none"> Evidence of participants constructing knowledge and utilizing critical thinking 	<ul style="list-style-type: none"> No evidence of participants constructing knowledge and utilizing critical thinking in assignments Misaligned culminating assessment

4. Assessment of Participant Learning

Page 2 of 2	4	3	2	1
Exemplars	<ul style="list-style-type: none"> 4 or more exemplars provided by instructor 	<ul style="list-style-type: none"> 2 – 3 exemplars provided by instructor 	<ul style="list-style-type: none"> One exemplar provided by instructor 	<ul style="list-style-type: none"> No exemplars provided by instructor
Quality	<ul style="list-style-type: none"> Utilizes a rubric with specific performance characteristics arranged in levels indicating the degree to which a standard has been met 	<ul style="list-style-type: none"> Utilized a checklist with points assigned to each task 	<ul style="list-style-type: none"> Utilizes traditional methods of assessing quality of student work, i.e. exams 	<ul style="list-style-type: none"> Quality is not defined
Self-Assessment	<ul style="list-style-type: none"> Participants choose from a list offering several methods to assess their own learning 	<ul style="list-style-type: none"> A checklist and reflective journal are provided for participants to assess their own learning 	<ul style="list-style-type: none"> A checklist is provided for participants to assess their own learning 	<ul style="list-style-type: none"> No student self assessment

5. Presentation, Structure and Organization

Page 1 of 3	4	3	2	1
Syllabi and Outline	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Clearly stated and accessible via print and online • Instructional expectations defined • Timelines and deadlines • Additional resources stated • Threshold for award of credit clearly defined 	<ul style="list-style-type: none"> • Clearly stated and accessible via print • Instructional expectations defined • Additional resources stated • Threshold for award of credit clearly defined 	<ul style="list-style-type: none"> • Clearly stated and accessible via print • Instructional goals stated • Threshold for award of credit clearly defined
Use of Multimedia	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Media runs intermittently over high speed networks • Media is used as “eye-candy” 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	<ul style="list-style-type: none"> • 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 mouse clicks or less 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Course can be navigated • All pages are designed for computer screens and may require scrolling • Layout is structured 	<ul style="list-style-type: none"> • Difficult navigation • Disorganized pages • Unappealing layout that distracts from the learning
Timing and Pacing	<ul style="list-style-type: none"> • The course timing and pacing is appropriate to meet the instructional goals and allow for participant differences. There are differentiated experiences for various learners 	<ul style="list-style-type: none"> • The course timing and pacing is appropriate to meet the instructional goals and is varied to meet the general needs of the class 	<ul style="list-style-type: none"> • The timing and pacing is set and meets the needs of the highest performing participants 	<ul style="list-style-type: none"> • Timing and pacing is inappropriate for the participant population

5. Presentation, Structure and Organization

Page 3 of 3	4	3	2	1
Online Environment	<ul style="list-style-type: none"> • Technical requirements for student access are documented. Criteria for students' technical knowledge are published & assessed • Access to learning resources (books, periodicals, etc.) is assured • 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 • Content is constructed to allow the different parts of the course to interact and integrate 	<ul style="list-style-type: none"> • Technical requirements for student access are documented • Criteria for students' technical knowledge are published & assessed • Access to learning resources (books, periodicals, etc.) is assured • Online and offline activities are available to the student 	<ul style="list-style-type: none"> • Technical requirements for student access are documented • Criteria for students' technical knowledge are published & assessed • Online and offline activities are available to the student 	<ul style="list-style-type: none"> • Technical requirements for student access are documented • Criteria for students' technical knowledge are published
Goals and Objectives	<ul style="list-style-type: none"> • Instructional and learning goals are clearly defined for student 	<ul style="list-style-type: none"> • Instructional and learning goals are defined for student 	<ul style="list-style-type: none"> • Learning goals are defined for student 	<ul style="list-style-type: none"> • Goals are not specified
Developmental Levels	<ul style="list-style-type: none"> • Material addresses ages and stages of learners- participants engage in "metalearning"-learning how to learn online 	<ul style="list-style-type: none"> • Material addresses limited range of ages/stages of learners 	<ul style="list-style-type: none"> • Material addresses one level of learners 	<ul style="list-style-type: none"> • Material does not consider age and stage of learner
Outcomes-based	<ul style="list-style-type: none"> • Evaluation is timely, fair, and based on local/state/national standards • Verification of student participation/performance procedures in place, instruction designed to have produced specific, lasting results in participants by end of course 	<ul style="list-style-type: none"> • Evaluation is timely, fair, and based on local/state/national standards • Verification of student participation/performance procedures in place 	<ul style="list-style-type: none"> • Evaluation is timely, fair, and based on local/state/national standards 	<ul style="list-style-type: none"> • Outcomes not specified

6. Administration-Systems Support

Page 1 of 3	4	3	2	1
<p>Copyright Information</p>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The system provides links to fair use and copyright information The ability to add meta tag information is part of the posting process 	<ul style="list-style-type: none"> The ability to add meta tag information is part of the posting process 	<ul style="list-style-type: none"> There is no overt support for the proper use of copyrighted materials
<p>Technical Support and Orientation</p>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Printed manuals, online technical support resources, are available Technical support is accessible for all members of the learning community 	<ul style="list-style-type: none"> Printed materials are available
<p>Security (Who can access and/or read)</p>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The instructor has the ability to set participant access to their courses 	<ul style="list-style-type: none"> 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
<p>Point of Authority/ Credentials of Institution</p>	<ul style="list-style-type: none"> • Biography available online with in depth resumes showing experience in the course content • Instructor holds credentials in the area of instruction related to the course • Instructor has gone through a training program on delivering courses which includes instruction in the pedagogy of online delivery • Provider Organization clearly identified and endorsed by BOCES, higher education institutions, or Teacher Centers 	<ul style="list-style-type: none"> • Biography available online with a resume showing experience in the course content • Instructor holds instructional credentials • Instructor has gone through a training program on delivering online courses • Provider organization clearly identified 	<ul style="list-style-type: none"> • Biography available online • Instructor has gone through a training program on delivering online courses • Provider organization clearly identified 	<ul style="list-style-type: none"> • Instructor has gone through a training program on delivering online courses • Provider organization not clearly identified

6. Administration-Systems Support

Page 3 of 3	4	3	2	1
Ongoing Course Evaluation	<ul style="list-style-type: none"> • Maintains and publishes data on all course activity • Provides mechanism for post course evaluation for all courses • 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 	<ul style="list-style-type: none"> • Maintains and publishes data on all course activity • Provides mechanism for post course evaluation • Publishes selected course evaluations • Evidence that evaluation data is used for screening instructors for future assignments 	<ul style="list-style-type: none"> • Provides mechanism for post course evaluation • Publishes course evaluations for selected courses 	<ul style="list-style-type: none"> • No formal evaluation systems
Course Registration	<ul style="list-style-type: none"> • Participants can enroll via email, fax, USPS and phone • Confirmation of enrollment automatically sent to all participants • Participants are notified of all course cancellations before the published start date • Course data is tracked by district and individual participant • Enrollment data is sent to OLA in flat field formats • Interfaces with NYSED portal 	<ul style="list-style-type: none"> • Participants can enroll via email, fax, USPS and phone • Confirmation of enrollment automatically sent to all participants • Participants are notified of all course cancellations before the published start date • Course data is tracked by district and individual participant 	<ul style="list-style-type: none"> • Participants can enroll via USPS and phone • Confirmation of enrollment automatically sent to all participants • Cancelled courses are listed on the Web site 	<ul style="list-style-type: none"> • Participants can enroll via USPS and phone • There is no automatic confirmation of enrollment

7. Technical Management

Page 1 of 4	4	3	2	1
ADA Compliant (508)	<ul style="list-style-type: none"> Fully 508 compliant (see attachment A) 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All materials can be read via screen readers, alternative text and captioning is provided for all multimedia elements 	<ul style="list-style-type: none"> There are no efforts to make the major portions of the content accessible to all learners
Admission and Records Administration	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 1/2 year 	<ul style="list-style-type: none"> 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 1/2 year 	<ul style="list-style-type: none"> 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 1/2 year

7. Technical Management

Page 2 of 4	4	3	2	1
System Capacity	<ul style="list-style-type: none"> • The system has the at least 5 megabytes of storage available per course • The system reports storage utilization to the end user administrators 	<ul style="list-style-type: none"> • The system has the at least 2 megabytes of storage available per course • The system reports storage utilization to the end user administrators 	<ul style="list-style-type: none"> • The system has the at least 1 megabytes of storage available per course • The system reports storage utilization to the end user administrators 	<ul style="list-style-type: none"> • The system has less than 1 megabytes of storage available per course
User Interface Compatibility	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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

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Back up process	<ul style="list-style-type: none"> Full data backups are done daily 	<ul style="list-style-type: none"> Backups are done bi-weekly 	<ul style="list-style-type: none"> Back-ups are done weekly 	<ul style="list-style-type: none"> There is no data back up
Source Code and Encryption keys	<ul style="list-style-type: none"> Source Code is open architecture and the code is held in escrow 	<ul style="list-style-type: none"> The source code is held in escrow 	<ul style="list-style-type: none"> The source code is proprietary 	<ul style="list-style-type: none"> The source code is unavailable
Redundancy and capacity	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The tool set is standards based and can handle synchronous communications Standard multimedia formats for Mac and Windows and standard browsers are supported 	<ul style="list-style-type: none"> 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)

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