

CETL® Exam Detailed Content Outline
Total Test Questions = 100 scored questions

Effective March 2020

I. Leadership and Vision (36% Total)

A. Leading and Creating the Vision (15% Subtotal)

CETL® certificants should be able to provide leadership while working with the executive team to develop a strategic plan that will support the organization's mission, vision, and goals with technology.

Related Knowledge

- Communication and relationship-building skills
- Roles and responsibilities of the executive team / cabinet
- Priority and time management skills
- Decision-making techniques
- Techniques for evaluating emerging technologies and potential applications
- Benchmark measurements for key innovations
- Pedagogical strategies leveraging technological resources
- Leveraging vertical relationships
- Organizational structure of educational institutions (formal and informal)
- Identifying stakeholder groups and their demographics
- Educational terminology
- Processes for gathering data and feedback
- Change management processes
- Effective marketing and communication strategies (e.g. social media; online, hardcopy, public speaking; modeling behaviors)
- Importance of transparency in communications

B. Strategic Planning (15% Subtotal)

CETL® certificants should possess a high-level view across the organization and work with teams to identify steps needed to transform the educational and operational technology vision into a strategic plan in alignment with the organization's mission, vision, and goals.

Related Knowledge

- Strategic planning techniques and best practices
- Technology frameworks (e.g., SAMR, TIM, TPACK)
- Sources of funds including federal, state and local
- Public and private grants
- Budget development
- Industry best practice methodologies, tools, and programs (e.g., ITIL, SDLC, Baldrige)
- Implementation of methodologies, tools, and programs in support of organizational goals
- Financial metrics
- Conducting a needs assessment
- The research methodologies to identify successful solutions
- The means through which technology supports each system or department
- Program and systems performance metrics
- Data-driven continuous improvement processes

C. Ethics and Policies (6% Subtotal)

CETL® certificants should be able to manage the creation and implementation of policies and procedures relating to the social, legal, and ethical issues involving technology use throughout the organization and modeling responsible decision-making.

Related Knowledge

- Applicable federal / national, state, and local laws (e.g., copyright, privacy, compliance, and (in the USA) FERPA, COPPA, HIPPA, CIPA)
- Compliance management
- Organizational policies (e.g., responsible use policy for students and employees, student information, ethical use of organization's resources and internet)
- Cybersecurity and physical security best practices
- Environmental protection and energy-saving practices
- Best practices for appropriate equipment disposal
- Balance between usability and security
- Equitable access facilitation (e.g., UDL information, ADA (in the USA), IDEA, EL, and internet access)

II. Understanding the Educational Environment (33% Total)

A. Instructional Focus and Professional Learning (18% Subtotal)

CETL® certificants should be able to: Budget, plan, and coordinate ongoing, relevant professional learning for all staff using technologies; and ensure or recommend a sufficient budget through the implementation and assessment process of emerging technologies.

Related Knowledge

- Effective uses of technology to maximize learning for diverse students
- Adult learning theory
- Contracts/collective bargaining agreement language
- Technology resources in support of educational best practices
- Technology and curriculum standards alignment
- Educational best practices supported by research
- Personalized professional learning
- Methods for assessing staff proficiency
- Professional learning plan development
- Methods for fostering collaborative environments within and beyond the organization's borders
- Serving in an advisory capacity to empower new teachers
- Student skills necessary for college and career success
- Organizations responsible for developing and modifying standards

B. Team Building and Staffing (15% Subtotal)

CETL® certificants should be able to create and support collaborative teams for decision-making, technology support and professional learning in support of the organization's mission, vision, and goals.

Related Knowledge

- Cross-functional team leadership and development
- Distributed leadership
- Mentoring and succession planning
- Team dynamics
- Frameworks for current and target metrics (e.g. scorecards, dashboards, and/or progress summary)
- Key Performance Indicators that support continuous improvement
- Hiring and retention practices, including screening and interviewing processes that match the knowledge, technical and interpersonal skills necessary for success in the job.
- Qualifications that are appropriate for the position and the environment
- Processes for developing and keeping up to date job descriptions
- Principles of staff assessment and feedback
- Evaluate the organizational structure for alignment with the organization's vision, mission and goals
- Evaluating positions and re-assigning based on organizational needs

III. Managing Technology and Support Resources (31% Total)

A. Information Technology (7% Subtotal)

CETL® certificants should be able to lead the integration of technology into all appropriate areas of the organization.

Related Knowledge

- Standards and best practices for system design, scalability and interoperability
- Project management principles and strategies
- Standards and best practices for system maintenance and lifecycle planning
- Pilot projects
- Importance of periodic re-evaluation of all systems (e.g., TCO, ROI, VOI, comparison of planned to actual, etc.)
- Operational Key Performance Indicators (e.g., utilization, uptime statistics, equity, staff efficiency, ratios of technicians to users and devices, mean-time-to-repair (MTTR), etc.)
- Resources that are “mission critical”
- Business continuity, disaster recovery, and security plan development
- Means of assessing risk and potential impact

B. Communication Systems (2% Subtotal)

CETL® certificants should be able to leverage technology to improve communication and collaboration with stakeholders.

Related Knowledge

- System interoperability and scalability
- Appropriate use of modern communication methods and tools
- Administration of electronic communication systems
- Emerging communication tools and their potential use within the education environment

C. Business Management (10% Subtotal)

A CETL® certificant should be able to manage the budget and serve as a strong business leader who guides purchasing decisions, and fosters mutually beneficial relationships with vendors, potential funders, and other key groups.

Related Knowledge

- Differences between capital and operational expenses and funding
- Differences between leasing and purchasing
- Differences between fixed expenses and variable expenses
- Salary administration
- Differences between budgeted costs and actual costs
- Budget cycle
- Fiscal year
- Principles of and differences between TCO and VOI (soft and hard benefits)
- Aligning purchases to goals and needs
- Competitive Bidding and RFP processes
- Bulk purchasing, warehousing, just-in-time purchasing
- Laws and monetary limits
- Contracts and contract negotiations
- Impact of inventory and insurance practices on purchasing decisions
- Asset management life cycle
- Differences between line item budgeting and categorical budgeting
- Financial reporting and forecasting
- Budget rollover or carryover
- Role of governing bodies in appropriating funds
- Organization, state, and federal purchasing policies and guidelines
- Volume purchasing and educational discounts
- Outreach to community business partners
- In-kind contributions and donations
- Negotiation strategies
- Vendor performance management
- Milestones for contract payments based on implementation

D. Data Management (5% Subtotal)

CETL® certificants should be able to implement and maintain systems and tools for gathering, mining, integrating, and reporting data.

Related Knowledge

- Database structures and concepts
- Effects of invalid data
- Platforms, interoperability, and scalability
- Data mining concepts
- Data migrations
- Data loss management
- Health monitoring of data systems
- On-demand data
- Automation of data capture
- Interoperability standards (e.g. SCORM, OneRoster, LTI, SIF)
- Data validation processes

E. Data Privacy and Security (7% Subtotal)

CETL® certificants should be able to implement practices and systems to ensure the privacy and security of organizational data.

Related Knowledge

- Security standards and best practices
- Data privacy standards and regulations
- Methods for network security risk mitigation and access controls
- Vulnerabilities and threat types
- Vulnerability assessment and auditing
- Data security terminology
- Elements of a secure network
- Data privacy agreements
- Cyber security insurance
- Security awareness programs