# 21st Century Knowledge and Skills

TCH 505 Technology for Today's Educator

Instructor: Dr. Han Liu

### **Need for Change**

- The following factors have transformed the way people work and live:
  - Economic development
  - Technology
  - Information
  - Demography
  - Political forces

# What Are 21st Century Skills

## **Core Subjects**

- English
- Reading/Language arts
- Mathematics
- Science
- Foreign language
- Civics
- Government
- Economics
- Arts
- History
- Geography

### **ICT Literacy**

- Information Literacy
- Media Literacy
- Interactive Communication
- Virtual Collaboration

### **Higher Order Thinking**

- Creativity and Innovative Thinking
- Curiosity and Risk-Taking
- Complex Reasoning
- Virtual Collaboration

### **Global Awareness**

- Social and Cultural Understanding
- Environmental Literacy
- Civic Engagement
- Renewable Energy and Sustainable Development
- Population

### **Economics Skills**

- Finance
- Business
- Entrepreneurship

### **Life and Career Skills**

- Adaptability and Self-direction
- Teaming and Collaboration
- Leadership and Responsibility

### **Health and Wellness**

- Obesity
- Exercises
- Healthy Diet and Food Safety
- Clean Water and Air
- Epidemic Diseases
- Pressure Release
- Preventive Culture vs. Treatment Culture

# Six Key Elements of 21<sup>st</sup> Century Learning

- Emphasize core subjects
- Emphasize learning skills
- Use 21<sup>st</sup> century tools to develop learning skills
- Teach and learn in a 21<sup>st</sup> century learning context
- Teach and learn 21st century content
- Use 21<sup>st</sup> century assessment that measure 21<sup>st</sup> century skills

# 21st Century Learning Skills

- Learning skills comprise three broad categories of skills
  - Information and communication skills
  - Thinking and problem solving skills
  - Interpersonal and self-directional skills

### 21st Century Content

- Global Awareness
- Financial, Economics, and Business Literacy
- Civic Literacy

### **Quote: Alvin Toffler**

• "The illiterate of the 21st century will not be those who can not read or write, but those who can not learn, unlearn, and relearn."

