

**OFFICE OF INSTRUCTIONAL ENHANCEMENT AND INTERNAL OPERATIONS**  
**Summary of State Board of Education Agenda Items**  
**Consent Agenda**  
**April 18-19, 2013**

**OFFICE OF CAREER AND TECHNICAL EDUCATION**

- D. Approval to establish the Mississippi Secondary Curriculum Frameworks in Career and Technical Education for (1) Law & Public Safety, (2) Energy Technology, and (3) Transportation Logistics  
(Has cleared the Administrative Procedures Act process with no public comments)

**Executive Summary**

The following secondary curriculum frameworks are recommended for approval:

1. Law & Public Safety
2. Energy Technology
3. Transportation Logistics

All curricula frameworks are designed to provide local programs with an instructional foundation that can be used to develop localized instructional management plans and course syllabi. Additionally, the frameworks include the following elements for each revised secondary curricula:

- ❖ Program Description
- ❖ CIP Code and CIP Name
- ❖ Course Outline and Codes
- ❖ Curriculum Framework
  - Student Competencies
  - Suggested Student Objectives

Draft curricula for each program were revised and reviewed with input from local district personnel and business/industry collaborators. Approved secondary curricula will be disseminated for implementation in the Fall 2013.

NOTE: The Office of Career and Technical Education has provided printed, bound executive summaries of the curriculum frameworks. The detailed documents are available upon request.

Recommendation: Approval

Back-up material attached

# 2013 Law and Public Safety

## Mississippi Department of Education



Program CIP: 43.9999 – Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other.

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## Foreword

Secondary career-technical education programs in Mississippi are faced with many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, Mississippi Code of 1972, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, ch. 487, §14; Laws, 1991, ch. 423, §1; Laws, 1992, ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act III, 1998; and No Child Left Behind Act of 2001).

Each secondary career-technical course consists of a series of instructional units which focus on a common theme. All units have been written using a common format which includes the following components:

- Unit Number and Title
- Suggested Time on Task - An estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie unit credit. The curriculum framework should account for approximately 75-80 percent of the time in the course.
- Competencies and Suggested Objectives
  - A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies.
  - The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.
- Suggested Teaching Strategies - This section of each unit indicates strategies that can be used to enable students to master each competency. Emphasis has been placed on strategies which reflect active learning methodologies. Teachers should feel free to modify or enhance these suggestions based on needs of their students and resources available in order to provide optimum learning experiences for their students.
- Suggested Assessment Strategies - This section indicates strategies that can be used to measure student mastery. Examples of suggested strategies could include rubrics, class participation, reflection, and journaling. Again, teachers should feel free to modify or enhance these suggested assessment strategies based on local needs and resources.
- Integrated Academic Topics, Workplace Skills, Technology Standards, and Occupational Standards - This section identifies related academic topics as required in the Subject Area Assessment Program (SATP) in Algebra I, Biology I, English II, and U. S. History from 1877, which are integrated into the content of the unit. It also identifies the 21st Century Skills, which were developed by the Partnership for 21st Century Skills, a group of business and education organizations concerned about the gap between the knowledge and skills learned in school and those needed in communities and the workplace. A portion of the 21st Century Skills addresses learning skills needed in the 21st century, including information and communication skills, thinking and problem-solving skills, and interpersonal and self-directional skills. The need for these types of skills have been recognized for some time and

the 21st Century Skills are adapted in part from the 1991 report from the U.S. Secretary of Labor's Commission on Achieving Necessary Skills (SCANS). Another important aspect of learning and working in the 21st century involves technology skills, and the International Society for Technology in Education, developers of the National Education Technology Standards (NETS), were strategic partners in the Partnership for 21st Century Skills.

- References - A list of suggested references is provided for each unit. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested and the list may be modified or enhanced based on needs and abilities of students and on available resources.

### **Pathway Description**

The Law and Public Safety career pathway focuses on the history of law and legal systems in the United States. Students will leave the program with a firm foundation of knowledge in these areas. Additionally, students will learn the importance of personal health and safety in the work environments associated with law and public safety. Students will also be introduced to the emergency services found in local communities. Additionally, students will focus on corrections in the state of Mississippi, studying specifically how jails and prisons function. Students will learn the specialized areas and topics within the law and public safety arena. They will examine the daily tasks and responsibilities of the professionals in the field. The program will offer students the opportunity to examine all areas of the military and the professions associated with each branch. Additionally, students will learn about emergency management and workplace skills and will have meaningful, relevant job-shadowing experiences with professionals.

### **Industry Certification**

There are three certifications associated with this curriculum. Students will be adequately prepared to meet the requirements of each.

- *FEMA National Incident Management System (NIMS)* – measures incident management competence
- *Community Emergency Response Teams (CERT)* – educates participants about disaster preparedness
- *Presidential Youth Fitness Program* – measures physical fitness through benchmarks; students must score at or above 85th percentile on all required activities

**Assessment**

Students will be assessed according to successful completion of the three certifications associated with the curriculum. In addition, students will prepare a performance-based portfolio based on the scenarios found in each unit of the curriculum. If there are questions regarding assessment of this program, please contact the STEM instructional design specialist at the Research and Curriculum Unit at 662.325.2510.

**Student Prerequisites**

Students are admitted to the course based on instructor approval.

**Applied Academic Credit (if applicable)**

The Law and Public Safety curriculum is written to correlate with the competencies in the Grades 10-12 physical-education course found in the 2006 Mississippi Physical Education Framework (1/2 credit). See crosswalk in Appendix D.

**Teacher Licensure**

The latest teacher licensure information can be found at <http://www.mde.k12.ms.us/educator-licensure>.

**Professional Learning**

If you have specific questions about the content of any of training sessions provided, please contact the Research and Curriculum Unit at 662.325.2510 and ask for a professional-learning specialist.

## Course Outlines for Law and Public Safety

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This curriculum consists of four one-credit courses, which should be completed in the following sequence:

1. History of Law and Legal Systems—Course Code: 990103
2. Emergency Services and Corrections—Course Code: 990104
3. Special Topics in Law and Public Safety—Course Code: 990105
4. Emergency Management and Military Professions—Course Code: 990106

### **Option 1—Four 1-Carnegie-Unit Courses**

#### **Course Description: History of Law and Legal Systems**

This course focuses on the history of law and legal systems in the United States. Students will leave the class with a firm foundation of knowledge in these areas. Additionally, students will learn the importance of personal health and safety in the work environments associated with law and public safety.

#### **Course Description: Emergency Services and Corrections**

This course introduces students to emergency services found in local communities. Additionally, students will focus on corrections in the state of Mississippi, studying specifically how jails and prisons function.

#### **Course Description: Special Topics in Law and Public Safety**

This course focuses on specialized areas and topics within the law and public safety arena. Students will learn about these particular areas and examine the daily tasks and responsibilities of the professionals associated with them.

#### **Course Description: Emergency Management and Military Professions**

This course will offer students the opportunity to examine all areas of the military and the professions associated with each. Additionally, students will learn about emergency management

and workplace skills and will have meaningful, relevant job-shadowing experiences with professionals.

**History of Law and Legal Systems—Course Code: 990103**

Unit	Unit Name	Hours
1	Orientation and Ethics	15
2	Personal Health and Safety	25
3	History of Criminal Law	35
4	Legal Systems in the United States	40
	Presidential Youth Fitness Program Training <sup>1</sup>	18
Total		133

**Emergency Services and Corrections—Course Code: 990104**

Unit	Unit Name	Hours
5	Corrections	30
6	Police and Highway Patrol	30
7	Public and Private Security	30
8	Specialized Law Enforcement Agencies	30
	Presidential Youth Fitness Program Training <sup>1</sup>	18
Total		138

**Special Topics in Law and Public Safety—Course Code: 990105**

Unit	Unit Name	Hours
9	Fire Protection Services	30
10	Emergency Medical Services	30
11	Interagency Collaboration, Communication, and Liaisons	10
12	Conflict Management/Stress Management	25
13	Incident Reporting	25
	CPAT Training <sup>2</sup>	18
Total		138

**Emergency Management and Military Professions—Course Code: 990106**

Unit	Unit Name	Hours
14	Careers in the Military	30
15	Emergency Management	20
16	Workplace Skills (plus NIMS training)	30
17	Career Experience/Job Shadowing	40
	CPAT Training <sup>2</sup>	18
Total		138

## Option 2—Two 2-Carnegie-Unit Courses

This curriculum consists of two two-credit courses, which should be completed in the following sequence:

1. Law and Public Safety I—Course Code: 990101
2. Law and Public Safety II—Course Code: 990102

### Course Description: Law and Public Safety I

This course focuses on the history of law and legal systems in the United States. Students will leave the class with a firm foundation of knowledge in these areas. Additionally, students will learn the importance of personal health and safety in the work environments associated with law and public safety. Students will also be introduced to the emergency services found in local communities. Additionally, students will focus on corrections in the state of Mississippi, studying specifically how jails and prisons function.

### Course Description: Law and Public Safety II

This course focuses on specialized areas and topics within the law and public safety arena. Students will learn about these particular areas and examine the daily tasks and responsibilities of the professionals associated with them. The course will offer students the opportunity to examine all areas of the military and the professions associated with each. Additionally, students will learn about emergency management and workplace skills and will have meaningful, relevant job-shadowing experiences with professionals.

### Law and Public Safety I—Course Code: 990101

Unit	Unit Name	Hours
1	Orientation and Ethics	15
2	Personal Health and Safety	25
3	History of Criminal Law	35
4	Legal Systems in the United States	40
5	Corrections	30
6	Police and Highway Patrol	30
7	Public and Private Security	30
8	Specialized Law Enforcement Agencies	30

	Presidential Youth Fitness Program Training <sup>1</sup>	36
Total		271

**Law and Public Safety II—Course Code: 990102**

Unit	Unit Name	Hours
9	Fire Protection Services	30
10	Emergency Medical Services	30
11	Interagency Collaboration, Communication, and Liaisons	10
12	Conflict Management/Stress Management	25
13	Incident Reporting	25
14	Careers in the Military	30
15	Emergency Management	20
16	Workplace Skills	30
17	Career Experience/Job Shadowing	40
	CPAT Training <sup>2</sup>	36
Total		276

<sup>1</sup> Students will participate in physical training 2 hr per week. This training will be based on the Presidential Youth Fitness Program. Please see requirements and crosswalk with Mississippi's 2006 Physical Education Framework for Grades 10-12 in Appendix D. <http://www.presidentialyouthfitnessprogram.org/resources/index.shtml>

<sup>2</sup> Students will participate in physical training 2 hr per week. This training will be based on the Candidate Physical Ability Test (CPAT). Please see requirements and crosswalk with Mississippi's 2006 Physical Education Framework for Grades 10-12 in Appendix D. [http://www.iaff.org/hs/CPAT/cpat\\_index.html](http://www.iaff.org/hs/CPAT/cpat_index.html)

# 2013 Energy Technology

## Mississippi Department of Education



Program CIP: 14.1001 – Energy Technology

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- References - A list of suggested references is provided for each unit. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested and the list may be modified or enhanced based on needs and abilities of students and on available resources.

### **Pathway Description**

Energy Technology is a pathway to introduce the student to the broad field of energy and the critical need for a skilled energy workforce. The Energy Technology program will provide a broad understanding of the electric and natural gas utility industry and the energy generation, transmission, and distribution infrastructure. The course includes business models, regulations, types of energy and their conversion to useable energy, emerging technologies, and the connection to careers in the energy industry. Students in the pathway will participate in active learning exercises, including integral activities of the SkillsUSA organization and supervised experiences. Students who successfully complete the competencies in this pathway will possess fundamental knowledge and skills that can be used to secure entry-level employment or as a foundation for continuing their education. Industry standards are adapted from the Center for Energy Workforce Development.

### **Industry Certification**

The Center for Energy and Workforce Development (CEWD) offers an Energy Industry Fundamental Certificate for students who make a passing score of 70% or higher on the Energy Industry Fundamentals Certificate Exam. Competencies and objectives in the Energy Foundations I and II courses are from the Energy Industry Fundamental Curriculum outlined by CEWD.

### **Assessment**

Students will be assessed using the Center for Energy Workforce Development's Energy Industry Fundamentals Certificate Exam during the first year. The first-year test is based on content from the first-year Energy Technology curriculum material. The second-year's course

work will be assessed using a performance-based assessment.

### **Student Prerequisites**

In order for students to be able to experience success in the Energy Technology program, the following student prerequisites are in place:

1. C or higher in English (the previous year)
2. C or higher in math (last course taken, or the instructor can specify the math)
3. Instructor approval and TABE reading score (eighth grade or higher)

**or**

1. TABE reading score (eighth grade or higher)
2. Instructor approval

**or**

1. Instructor approval

### **Teacher Licensure**

The latest teacher licensure information can be found at <http://www.mde.k12.ms.us/educator-licensure>.

### **Professional Learning**

If you have specific questions about the content of each training session provided, please contact the Research and Curriculum Unit at 662.325.2510 and ask for a professional learning specialist.

**Option 1—Four One-Carnegie-Unit Courses**

This curriculum consists of four one-credit courses, which should be completed in the following sequence:

1. Energy Foundations I—Course Code: 994302
2. Energy Foundations II—Course Code: 994303
3. Energy Alternative Forms—Course Code: 994304
4. Energy Generation Technician—Course Code: 994305

**Course Description: Energy Foundations I**

This course provides a broad understanding of the electric and natural gas utility industry and the energy generation, transmission, and distribution infrastructure, commonly called the "largest machine in the world," which forms the backbone for the industry. The course includes business models, regulations, types of energy and their conversion to useable energy, emerging technologies, and the connection to careers in the energy industry.

**Course Description: Energy Foundations II**

This is the second part of the course Energy Foundations I and is a continuation of the concepts described above.

**Course Description: Energy Alternative Forms**

This course covers the production and distribution of electricity generated from biomass, biofuel, nuclear, wind, and solar energy sources. In addition, this course supports Tier 3 and Tier 4 of the Energy Competency Model as outlined by the Center for Energy Workforce Development and the Employment and Training Administration.

The model is available at <http://www.cewd.org/Documents/EnergyCompModel.pdf>

**Course Description: Energy Generation Technician**

This course is designed to develop competencies in the areas of energy history and the global impact of renewable and nonrenewable resources; career opportunities; scientific and research concepts; biological and physical science principles; environmental principles; and solar energy safety. Laboratory-based activities are an integral part of this course. The activities include the safe use and application of appropriate technology, scientific testing, and observation equipment.

**Course Name Energy Foundations I—Course Code: 994302**

Unit	Unit Name	Hours
1	Orientation and Ethics	14
2	Structure of Energy Industry	34
3	Compliance and Application Procedures	58
4	Electric Power Generation	34
Total		140

**Course Name** Energy Foundations II—**Course Code:** 994303

Unit Number	Unit Name	Hours
5	Electric Power Transmission	25
6	Electric Power Distribution	25
7	Careers in Energy	35
8	Energy Innovations	40
Total		125

**Course Name** Energy Alternative Forms—**Course Code:** 994304

Unit Number	Unit Name	Hours
9	Importance of Alternative Energy	25
10	Biomass and Biofuel	25
11	Nuclear Power	25
12	Solar Power	25
13	Wind Power	25
Total		125

**Course Name** Energy Generation Technician—**Course Code:** 994305

Unit Number	Unit Name	Hours
14	Generation System	15
15	Equipment Operation, Maintenance and Repair	25
16	Quality Operations	20
17	Diagnostics and Production Processes	8
18	Health, Safety, and Environmental Management	8
19	Oral and Written Communication	30
20	Application of Scientific Method, Mathematical Operations	14
Total		120

**Option 2—Two-Carnegie-Unit Courses**

This curriculum consists of two two-credit courses, which should be completed in the following sequence:

1. Energy Technician I—Course Code: 994300
2. Energy Technician II—Course Code: 994301

**Course Description: Energy Technician I**

This course provides a broad understanding of the electric and natural gas utility industry and the energy generation, transmission, and distribution infrastructure, commonly called the "largest machine in the world," which forms the backbone for the industry. The course includes business models, regulations, types of energy and their conversion to useable energy, emerging technologies, and the connection to careers in the energy industry.

**Course Description: Energy Technician II**

This course covers the production and distribution of electricity generated from biomass, biofuel, nuclear, wind, and solar energy sources. In addition, this course supports Tier 3 and Tier 4 of the Energy Competency Model as outlined by the Center for Energy Workforce Development and the Employment and Training Administration. This course is designed to develop competencies in the areas of energy history and the global impact of renewable and nonrenewable resources; career opportunities; scientific and research concepts; biological and physical science principles; environmental principles; and solar energy safety. Laboratory-based activities are an integral part of this course. The activities include the safe use and application of appropriate technology, scientific testing, and observation equipment.

**Course Name Energy Technician I—Course Code: 994300**

Unit Number	Unit Name	Hours
1	Orientation and Ethics	14
2	Structure of Energy Industry	34
3	Compliance and Application Procedures	58
4	Electric Power Generation	34
5	Electric Power Transmission	25
6	Electric Power Distribution	25
7	Careers in Energy	35
8	Energy Innovations	40
Total		265

**Course Name Energy Technician II—Course Code: 994301**

Unit	Unit Name	Hours
9	Importance of Alternative Energy	25
10	Biomass and Biofuel	25
11	Nuclear Power	25
12	Solar Power	25
13	Wind Power	25
14	Generation System	15
15	Equipment Operation, Maintenance, and Repair	25
16	Quality Operations	20
17	Diagnostics and Production Processes	8
18	Health, Safety, and Environmental Management	8
19	Oral and Written Communication	30
20	Application of Scientific Method, Mathematical Operations	14
Total		245

# 2013 Transportation Logistics

Mississippi Department of Education



Program CIP: 52.0203 – Transportation Logistics, Materials, and Supply Chain Management

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## Foreword

Secondary career-technical education programs in Mississippi are faced with many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, Mississippi Code of 1972, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, ch. 487, §14; Laws, 1991, ch. 423, §1; Laws, 1992, ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act III, 1998; and No Child Left Behind Act of 2001).

Each secondary career-technical course consists of a series of instructional units which focus on a common theme. All units have been written using a common format which includes the following components:

- Unit Number and Title
- Suggested Time on Task - An estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie unit credit. The curriculum framework should account for approximately 75-80 percent of the time in the course.
- Competencies and Suggested Objectives
  - A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies.
  - The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.
- Suggested Teaching Strategies - This section of each unit indicates strategies that can be used to enable students to master each competency. Emphasis has been placed on strategies which reflect active learning methodologies. Teachers should feel free to modify or enhance these suggestions based on needs of their students and resources available in order to provide optimum learning experiences for their students.
- Suggested Assessment Strategies - This section indicates strategies that can be used to measure student mastery. Examples of suggested strategies could include rubrics, class participation, reflection, and journaling. Again, teachers should feel free to modify or enhance these suggested assessment strategies based on local needs and resources.
- Integrated Academic Topics, Workplace Skills, Technology Standards, and Occupational Standards - This section identifies related academic topics as required in the Subject Area Assessment Program (SATP) in Algebra I, Biology I, English II, and U. S. History from 1877, which are integrated into the content of the unit. It also identifies the 21st Century Skills, which were developed by the Partnership for 21st Century Skills, a group of business and education organizations concerned about the gap between the knowledge and skills learned in school and those needed in communities and the workplace. A portion of the 21st Century Skills addresses learning skills needed in the 21st century, including information and communication skills, thinking and problem-solving skills, and interpersonal and self-directional skills. The need for these types of skills have been recognized for some time and

the 21st Century Skills are adapted in part from the 1991 report from the U.S. Secretary of Labor's Commission on Achieving Necessary Skills (SCANS). Another important aspect of learning and working in the 21st century involves technology skills, and the International Society for Technology in Education, developers of the National Education Technology Standards (NETS), were strategic partners in the Partnership for 21st Century Skills.

- References - A list of suggested references is provided for each unit. The list includes some of the primary instructional resources that may be used to teach the competencies and suggested objectives. Again, these resources are suggested and the list may be modified or enhanced based on needs and abilities of students and on available resources.

### **Pathway Description**

Transportation Logistics is a pathway designed to introduce students to the broad field of supply chain management. The program includes instruction in the applied processes related to transportation logistics as well as introduces students to transportation practices and maintenance of facilities and equipment. Students in the pathway will participate in active learning exercises, including integral activities and supervised experiences that highlight key logistics concepts. Students who successfully complete the competencies in this pathway will possess fundamental knowledge and skills that can be used to secure entry-level employment or as a foundation for continuing their education. Industry standards are adapted from the publication Career Cluster Resources for Transportation Logistics, developed by the National Association of State Directors of Career and Technical Education.

### **Industry Certification**

The Global Logistics Associate (GLA) certificate from the American Society for Transportation and Logistics (AST&L) is a national, industry-recognized certification for entry-level, high school graduates. All competencies and suggested performance indicators in the Transportation Logistics course are driven by the (AST&L) Content Standards. The standards can be found at

<http://www.astl.org>.

### **Assessment**

Students will be assessed using the American Society for Transportation and Logistics Global Logistics Associate (GLA) Certificate Exam. If there are questions regarding assessment of this program, please contact the instructional design specialist at the Research and Curriculum Unit at 662.325.2510.

## **Student Prerequisites**

In order for students to be able to experience success in the Transportation Logistics program, the following student prerequisites are required:

1. C or higher in English (the previous year)
2. C or higher in Math (last course taken or the instructor can specify the math)
3. Instructor approval and a TABE Reading Score of eighth grade or higher

**or**

1. TABE Reading Score of eighth grade or higher
2. Instructor approval

**or**

1. Instructor approval

## **Applied Academic Credit**

At this time, no applied academic credit is available for this pathway.

## **Teacher Licensure**

The latest teacher licensure information can be found at <http://www.mde.k12.ms.us/educator-licensure>.

## **Professional Learning**

If you have specific questions about the content of any of the training sessions provided, please contact the Research and Curriculum Unit at 662.325.2510, and ask for a professional-learning specialist.

## Course Outlines for Transportation Logistics

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### Option 1—Four 1-Carnegie-Unit Courses

This curriculum consists of four one-credit courses, which should be completed in the following sequence:

1. Transportation Logistics: Fundamentals of Transportation Logistics—Course Code: 997302
2. Transportation Logistics: Receiving and Stocking—Course Code: 997303
3. Transportation Logistics: Material Handling—Course Code: 997304
4. Transportation Logistics: Supply Chain Management—Course Code: 997305

#### **Course Description: Transportation Logistics: Fundamentals of Transportation Logistics**

This course provides a broad understanding of the Fundamentals of Transportation Logistics. The course includes the overview of the industry as well as the introductory materials to the transportation logistics profession.

#### **Course Description: Transportation Logistics: Receiving and Stocking**

This course covers the taking in and storage of materials found in any Transportation Logistics facility. All safety and broad concepts are continued in this course.

#### **Course Description: Transportation Logistics: Material Handling**

This course covers the handling of materials found in most Transportation Logistics facilities. New concepts of Intermodal Transportation as well as the physical and technical requirements are introduced with multiple activities to integrate the technology and higher-order thinking skills into the workplace.

#### **Course Description: Transportation Logistics: Supply Chain Management**

This course integrates most Transportation Logistics concepts into what the industry is all about. The technology, the impact, and all the principles of receiving, storing, tracking, managing, and shipping goods are all used to satisfy this course.

#### **Course Name** Transportation Logistics: Fundamentals of Transportation Logistics—**Course Code: 997302**

Unit	Unit Name	Hours
1	Orientation, Advanced Leadership, and Employability Skills	10
2	Environmental Safety and Health	15
3	Overview of Supply Chain Management, Transportation, and Distribution	15
4	Basic Material-Handling Equipment and Technology	35
5	Procurement and Inventory Management	30
Total		105

**Course Name** Transportation Logistics: Receiving and Stocking—**Course Code: 997303**

Unit	Unit Name	Hours
6	Receiving, Stocking, and Put-away Procedures	50
7	Order Selection and Packing Procedures	55
Total		105

**Course Name** Transportation Logistics: Material Handling—**Course Code: 997304**

Unit	Unit Name	Hours
8	Environmental Safety & Health and Year 1 Review	35
9	Introduction to Intermodal Transportation	35
10	Advanced Material-Handling Equipment and Technology	35
Total		105

**Course Name** Transportation Logistics: Supply Chain Management—**Course Code: 997305**

Unit	Unit Name	Hours
11	Managing Distribution Center and Warehouse Facilities	40
12	Logistics and Supply Chain Management	65
Total		105

**Option 2—Two 2-Carnegie-Unit Courses**

This curriculum consists of two two-credit courses, which should be completed in the following sequence:

1. Transportation Logistics I—Course Code: 997300
2. Transportation Logistics II—Course Code: 997301

**Course Description: Transportation Logistics I**

This course provides a broad understanding of the Fundamentals of Transportation Logistics. The course includes the overview of the industry as well as the introductory materials to the transportation logistics profession. This course also covers the taking in and storage of materials found in any Transportation Logistics facility. All safety and broad concepts are continued in this course.

**Course Description: Transportation Logistics II**

This course covers the handling of materials found in most Transportation Logistics facilities. New concepts of Intermodal Transportation as well as the physical and technical requirements are introduced with multiple activities to integrate the technology and higher-order thinking skills into the workplace. This course also integrates most Transportation Logistics concepts into what the industry is all about. The technology, the impact, and all the principles of receiving, storing, tracking, managing, and shipping goods are all used to satisfy this course.

**Course Name** Transportation Logistics I—**Course Code: 997300**

Unit	Unit Name	Hours
1	Orientation, Advanced Leadership, and Employability Skills	10
2	Environmental Safety and Health	15
3	Overview of Supply Chain Management, Transportation, and Distribution	15
4	Basic Material-Handling Equipment and Technology	35
5	Procurement and Inventory Management	30
6	Receiving, Stocking, and Put-away Procedures	50
7	Order Selection and Packing Procedures	55
Total		210

**Course Name** Transportation Logistics II—**Course Code: 997301**

Unit	Unit Name	Hours
8	Environmental Safety & Health and Year 1 Review	35
9	Introduction to Intermodal Transportation	35
10	Advanced Material-Handling Equipment and Technology	35
11	Managing Distribution Center and Warehouse Facilities	40
12	Logistics and Supply Chain Management	65
Total		210