

Course Outline

Transportation

April/2021

Job Title:

Forklift Operator

Career Pathway:

Operations

Industry Sector:

Transportation

O*NET-SOC CODE:

53-7051.00

CBEDS Title:

Distribution and Logistics

CBEDS No.:

5673

79-90-92

Warehouse Operations: Forklift Operations

Credits: N/A

Hours: 25

Course Description:

This competency-based course provides students with entry-level skills for powered industrial truck (Forklift) occupations, operating instructions, warnings, and precautions for the types of truck (Forklift) the operator will be authorized to operate. Understand the various safety hazards associated with material handling equipment and related equipment in the warehousing industry. Training includes proper driving and operating skills using various types of power and fixed equipment. Demonstrate preventive maintenance procedures and identify correct equipment for the job. This course's competencies are aligned with the California High School Academic Content Standards and the California Career Technical Education Model Curriculum Standards.

Prerequisites:

None.

NOTE: For Perkins purposes, this course has been designated as a **concentrator** course.

This course cannot be repeated once a student receives a Certificate of Completion.



COURSE OUTLINE COMPETENCY-BASED COMPONENTS

A course outline reflects the essential intent and content of the course described. Acceptable course outlines have six components. (Education Code Section 52506). Course outlines for all apportionment classes, including those in jails, state hospitals, and convalescent hospitals, contain the six required elements:

(EC 52504; 5CCR 10508 [b]; Adult Education Handbook for California [1977], Section 100)

COURSE OUTLINE COMPONENTS

LOCATION

GOALS AND PURPOSES

Cover

The educational goals or purposes of every course are clearly stated and the class periods are devoted to instruction. The course should be broad enough in scope and should have sufficient educational worth to justify the expenditure of public funds.

The goals and purpose of a course are stated in the COURSE DESCRIPTION. Course descriptions state the major emphasis and content of a course, and are written to be understandable by a prospective student.

PERFORMANCE OBJECTIVES OR COMPETENCIES

pp. 7-10

Objectives should be delineated and described in terms of measurable results for the student and include the possible ways in which the objectives contribute to the student's acquisition of skills and competencies.

Performance Objectives are sequentially listed in the COMPETENCY-BASED COMPONENTS section of the course outline. Competency Areas are units of instruction based on related competencies. Competency Statements are competency area goals that together define the framework and purpose of a course. Competencies fall on a continuum between goals and performance objectives and denote the outcome of instruction.

Competency-based instruction tells a student before instruction what skills or knowledge they will demonstrate after instruction. Competency-based education provides instruction which enables each student to attain individual goals as measured against pre-stated standards.

Competency-based instruction provides immediate and continual repetition and In competency-based education the curriculum, instruction, and assessment share common characteristics based on clearly stated competencies. Curriculum, instruction and assessment in competency-based education are: explicit, known, agreed upon, integrated, performance oriented, and adaptive.

COURSE OUTLINE COMPETENCY-BASED COMPONENTS
(continued)

COURSE OUTLINE COMPONENTS	LOCATION
INSTRUCTIONAL STRATEGIES	p. 12
<p>Instructional techniques or methods could include laboratory techniques, lecture method, small-group discussion, grouping plans, and other strategies used in the classroom.</p> <p>Instructional strategies for this course are listed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructional strategies and activities for a course should be selected so that the overall teaching approach takes into account the instructional standards of a particular program, i.e., English as a Second Language, Programs for Adults with Disabilities.</p>	
UNITS OF STUDY, WITH APPROXIMATE HOURS ALLOTTED FOR EACH UNIT	Cover
<p>The approximate time devoted to each instructional unit within the course, as well as the total hours for the course, is indicated. The time in class is consistent with the needs of the student, and the length of the class should be that it ensures the student will learn at an optimum level.</p> <p>Units of study, with approximate hours allotted for each unit are listed in the COMPETENCY AREA STATEMENT(S) of the course outline. The total hours of the course, including work-based learning hours (community classroom and cooperative vocational education) is listed on the cover of every CBE course outline. Each Competency Area listed within a CBE outline is assigned hours of instruction per unit.</p>	
EVALUATION PROCEDURES	pp. 12
<p>The evaluation describes measurable evaluation criteria clearly within the reach of the student. The evaluation indicates anticipated improvement in performances as well as anticipated skills and competencies to be achieved.</p> <p>Evaluation procedures are detailed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructors monitor students' progress on a continuing basis, assessing students on attainment of objectives identified in the course outline through a variety of formal and informal tests (applied performance procedures, observations, and simulations), paper and pencil exams, and standardized tests.</p>	
REPETITION POLICY THAT PREVENTS PERPETUATION OF STUDENT ENROLLMENT	Cover
<p>After a student has completed all the objectives of the course, he or she should not be allowed to reenroll in the course. There is, therefore, a need for a statement about the conditions for possible repetition of a course to prevent perpetuation of students in a particular program for an indefinite period of time.</p>	

ACKNOWLEDGMENTS

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CALIFORNIA CAREER TECHNICAL EDUCATION MODEL CURRICULUM STANDARDS

Transportation Industry Sector Knowledge and Performance Anchor Standards

1.0 Academics

Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the Transportation academic alignment matrix for identification of standards.

2.0 Communications

Acquire and accurately use Transportation sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

3.0 Career Planning and Management

Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

4.0 Technology

Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Transportation sector workplace environment.

5.0 Problem Solving and Critical Thinking

Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Transportation sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

6.0 Health and Safety

Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Transportation sector workplace environment.

7.0 Responsibility and Flexibility

Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Transportation sector workplace environment and community settings.

8.0 Ethics and Legal Responsibilities

Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

9.0 Leadership and Teamwork

Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the SkillsUSA career technical student organization

10.0 Technical Knowledge and Skills

Apply essential technical knowledge and skills common to all pathways in the Transportation sector, following procedures when carrying out experiments or performing technical tasks.

11.0 Demonstration and Application

Demonstrate and apply the knowledge and skills contained in the Transportation anchor standards, pathway standards, and performance indicators in a classroom, laboratory, and workplace settings, and through the SkillsUSA career technical student organization.

Transportation Pathway Standards

A. Operations Pathway

The Operations pathway prepares students for postsecondary employment and education in a variety of career opportunities in the transportation industry, including but not limited to harbors, ports, warehousing, marine applications, airplanes, trains, vehicles, and specialty equipment.

Sample occupations associated with this pathway:

- ◆ Warehouse Worker/Dispatcher
- ◆ Production, Planning, and Expediting Clerk
- ◆ Storage, Warehouse, and Distribution Manager
- ◆ Container Crane Operator
- ◆ Inspectors and Planners

- A1.0 Evaluate and assess all aspects of facilities and facility planning for efficient and effective processing/handling of people, goods, and services in the transportation industry (housing, storage, maintenance, parts).
- A2.0 Describe and identify tools, techniques, and systems used to plan, staff, lead and organize human resources as it relates to the transportation sector.
- A3.0 Demonstrate an understanding of the concepts and processes needed to move, store/house, locate, and/or transfer people, goods, and services.
- A4.0 Demonstrate an understanding of business fundamentals, uses, and application of technologies, communications, and basic management functions.
- A5.0 Analyze and evaluate the design advantages and disadvantages of transportation-industry systems and the effects of those systems on people and the environment.
- A6.0 Demonstrate safety practices pertaining to the transportation industry, including requirements of the Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), Air Quality Management Districts (AQMDs), and other regulatory agencies.
- A7.0 Describe and identify the infrastructures required and used in the transportation industry.

CBE
Competency-Based Education

COMPETENCY-BASED COMPONENTS
for the Warehouse Operations: Forklift Operator Course

COMPETENCY AREAS AND STATEMENTS	MINIMAL COMPETENCIES	STANDARDS
<p>A. ORIENTATION/INTRODUCTION</p> <p>Understand the scope, of course, powered industrial truck (Forklift) occupations, operating instructions, warnings, and precautions for the types of truck (Forklift) the operator will be authorized to operate.</p> <p>(2 hour)</p>	<ol style="list-style-type: none"> 1. Learn the basic content of the course. 2. Learn classroom rules and procedures. 3. Learn the scope and sequence, of course. 4. Learn the skills required for this course and the control of equipment and materials. 5. Learn the uses and purposes of various types of material handling equipment. 	<p>Career Ready Practice: 1, 3, 7</p> <p>CTE Anchor: Communications: 2.1, 2.3 Career Planning and Management: 3.5 Technical Knowledge and Skills: 10.1</p> <p>CTE Pathway: A2.3, A2.5, A7.4</p>
<p>B. SAFETY</p> <p>Understand the various safety hazards associated with material handling equipment and related equipment in the warehousing industry.</p> <p>(4 hour)</p>	<ol style="list-style-type: none"> 1. Identify warning and protective devices. 2. Learn forklift safety rules as required by CAL/OSHA. 3. Learn various safety rules and regulations as required by employer. 4. Review industrial safety practices. 5. Identify hazardous materials storage locations from non-hazardous materials storage locations. 6. View and discuss Yale safety video. 7. Pass Yale forklift safety test with 100% accuracy. 8. View and discuss Toyota Operator Program in Safety(T.O.P.S.) video. 9. Pass T.O.P.S. safety test with 100% accuracy. 10. Pass preliminary safety test with 100% accuracy. 11. Pass industrial hazards safety test with 100% accuracy. 12. View and discuss High-Impact Forklift Operator Training video. 	<p>Career Ready Practice: 1, 3, 6, 7</p> <p>CTE Anchor: Communications: 2.1, 2.3 Health and Safety: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7 Ethics and Legal Responsibilities: 8.1, 8.2, 8.3, 8.4 Technical Knowledge and Skills: 10.1, 10.2</p> <p>CTE Pathway: A2.3, A2.5, A7.4</p>

COMPETENCY AREAS AND STATEMENTS	MINIMAL COMPETENCIES	STANDARDS
<p>C. SECURITY AND HOUSEKEEPING</p> <p>Understand safety precautions and response procedures in the event of a hazardous materials accident.</p> <p>(4 hours)</p>	<ol style="list-style-type: none"> 1. Describe and outline the importance of adequate and proper housekeeping practices. 2. Learn to integrate safety and good housekeeping practices into daily operation. 3. Identify common hazardous materials. 4. Identify spontaneous combustion hazards. 5. Simulate clean-up of flammable liquids. 6. Learn how to identify and read signs related to hazardous items. 7. Learn how to handle unsafe materials. 8. Learn the precautions used when working with hazardous materials. 	<p>Career Ready Practice: 1, 2, 3, 5, 6, 7, 10, 11, 12</p> <p>CTE Anchor: Communication s: 2.1, 2.2, 2.3, 2.4 Technology: 4.1 Problem Solving and Critical Thinking: 5.1, 5.2, 5.3, 5.4 Health and Safety: 6.2, 6.5, 6.6, 6.7 Ethics and Legal Responsibilities: 8.1 Technical Knowledge and Skills: 10.1, 10.2</p> <p>CTE Pathway: A2.2, A2.4, A3.3, A6.1, A6.2, A6.3</p>
<p>D. OPERATION PROBLEMS</p> <p>Solve forklift and warehouse operation problems.</p>	<ol style="list-style-type: none"> 1. Identify forklift and warehouse equipment problems. 2. Learn to solve forklift and warehouse equipment problems. 3. Learn how to use proper forklift terms in work contact. 4. Learn how to make warehousing decisions. 5. Learn the pre-operational equipment safety check. 	<p>Career Ready Practice: 1, 3, 5, 6, 7</p> <p>CTE Anchor: Communication s: 2.1, 2.2, 2.3 Problem Solving and Critical Thinking: 5.1, 5.2, 5.3, 5.4</p>

COMPETENCY AREAS AND STATEMENTS	MINIMAL COMPETENCIES	STANDARDS
(4 hour)		Health and Safety: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7 Ethics and Legal Responsibilities: 8.1, 8.2 Technical Knowledge and Skills: 10.1, 10.2 CTE Pathway: A2.3, A2.5, A7.4
E. MATERIAL HANDLING EQUIPMENT Demonstrate proper driving and operating skills using various types of power and fixed equipment. Demonstrate preventative maintenance procedures.	<ol style="list-style-type: none"> 1. Identify the classification of Material Handling Equipment. 2. Keep accurate maintenance records. 3. Learn the uses for each piece of equipment. 4. Learn and Understand charging procedures. 5. Learn to identify unsafe equipment. 6. Identify malfunctions in equipment. 7. Understand maintenance programs. 8. Learn to operate mobile equipment. 9. Truck controls and instrumentation: where they are located, what do they do, and how they work. 10. Learn proper Steering and maneuvering. 11. Learn Visibility (including restrictions due to loading). 12. Fork and attachments adaptation, operation, and use limitations. 13. Vehicle capacity. 14. Learn to Operate counter-balance L.P.G. Forklifts. 15. Learn to operate a forklift (electric). 16. Learn to operate a forklift (gas). 17. Learn to operate straddle-arm stacker. 18. Learn to operate walkie-rider. 19. Learn to operate stock-picker. 20. Learn to operate order-picker. 21. Learn to operate tow-motor. 22. Learn to operate stock tractor. 23. Learn operate stock chaser. 24. Learn to operate pallet jack. 25. Learn to operate skid jack 26. Learn to operate transporter (electric). 27. Learn to operate a 2 wheel dolly. 28. Learn to operate a 4 wheel dolly. 	Career Ready Practice: 1, 3, 5, 6, 7 CTE Anchor: Communications: 2.1, 2.2, 2.3 Problem Solving and Critical Thinking: 5.1, 5.2, 5.4 Health and Safety: A6.3, A6.4, A6.5, A6.6, A7.2 CTE Pathway: A2.3, A2.5, A7.4
(8 hours)		

COMPETENCY AREAS AND STATEMENTS	MINIMAL COMPETENCIES	STANDARDS
<p>F. EVALUATION</p> <p>Pass oral, written, and performance tests demonstrating all required skills.</p> <p>(2 hours)</p>	<ol style="list-style-type: none"> 1. Pass warehousing test with 100% accuracy. 2. Pass forklift equipment practice test with 100% accuracy. 3. Pass industrial safety practice test with 100% accuracy. 4. Pass practice driving skills test by driving various industrial vehicles through an obstacle course. 	<p>Career Ready Practice: 1, 3, 5, 6, 7, 10</p> <p>CTE Anchor: Communications: 2.2, 2.3, 2.4 Problem Solving and Critical Thinking: 5.1, 5.4 Ethics and Legal Responsibilities: 8.1</p> <p>CTE Pathway: A2.3, A2.5, A4.7</p>
<p>G. EMPLOYABILITY SKILLS</p> <p>Understand the job market and specific skills needed for employment in the industrial truck operator field.</p> <p>(1 hour)</p>	<ol style="list-style-type: none"> 1. Identify the various specialty areas for employment. 2. Describe working conditions for each specialty area. 3. Learn about various pay scales. 4. Describe work habits and attitude required to maintain employment as an industrial truck operator. 5. Prepare a cover letter and résumé. 6. Complete application forms legibly and accurately. 7. Role-play basic interview skills. 8. Participate in a mock oral interview. 9. Describe dress code required by various employers. 	<p>Career Ready Practice: 1, 2, 3, 5, 7, 9, 10</p> <p>CTE Anchor: Communications: 2.1, 2.2, 2.3, 2.4, 2.5 Career Planning and Management: 3.2, 3.3 Problem Solving and Critical Thinking: 5.3 Responsibility and Flexibility: 7.2, 7.4, 7.7 Leadership and Teamwork: 9.3</p> <p>CTE Pathway: A1.1, A2.1, A2.3, A2.6, A2.8, A4.1, A4.7</p>

SUGGESTED INSTRUCTIONAL MATERIALS and OTHER RESOURCES

TEXTBOOK

J.J. Keller, Forklift Drivers Safety Handbook, J.J. Keller and Associates, May 20, 2020

RESOURCES

Employer Advisory Board members

Foundation Standards

<http://www.cde.ca.gov/ci/ct/sf/documents/transportation.pdf>

Toyota Operator Program in Safety (T.O.P.S.) video.

OSHA Powered Industrial Truck Training Program:

[http://www.osha.gov/pls/oshaweb/owalink.query_links?src_doc_type=STANDARDS&src_unique_file=1910_0178&src_anchor_name=1910.178\(l\)\(2\)\(iii\)](http://www.osha.gov/pls/oshaweb/owalink.query_links?src_doc_type=STANDARDS&src_unique_file=1910_0178&src_anchor_name=1910.178(l)(2)(iii))

Safety and Health Topics, Powered Industrial Trucks-Forklifts — www.osha.gov/SLTC/powerindustrialtrucks

E-Tools Powered Industrial Trucks (Forklifts), Training Assistance — www.osha.gov/SLTC/etools/pit/assistance

Powered Industrial Trucks-Operator Training (MS PowerPoint Presentation) — www.osha.gov/dte/library/pit/ppt/pit-pp97.ppt

Sample Daily Checklists for Powered Industrial Trucks — www.osha.gov/dte/library/pit/daily_pit_checklist.html

TEACHING STRATEGIES and EVALUATION

METHODS AND PROCEDURES

- A. Lecture and discussion
- B. Demonstration
- C. Field trips
- D. Multimedia presentations
- E. Practical on-the-job experience
- F. Individualized instruction

EVALUATION

SECTION A – Orientation/Introduction – Pass all assignments and exams on orientation/introduction with a minimum score of 80% or higher.

SECTION B – Safety – Pass the safety test with 100% accuracy.

SECTION C – Security and Housekeeping – Pass all assignments and exams on security and housekeeping, with a minimum score of 80% or higher.

SECTION D – Operation Problems – Pass all assignments and exams on operation problems with a minimum score of 80% or higher.

SECTION E – Material Handling Equipment – Pass all assignments and exams on material handling equipment with a minimum score of 80% or higher.

SECTION F – Evaluation – Pass all assignments and exams on evaluation with a minimum score of 80% or higher.

SECTION G – Employability Skills – Pass all assignments and exams on employability skills with a minimum score of 80% or higher.

Standards for Career Ready Practice

1. Apply appropriate technical skills and academic knowledge.

Career-ready individuals readily access and use the knowledge and skills acquired through experience and education. They make connections between abstract concepts with real-world applications and recognize the value of academic preparation for solving problems, communicating with others, calculating measures, and performing other work-related practices.

2. Communicate clearly, effectively, and with reason.

Career-ready individuals communicate thoughts, ideas, and action plans with clarity, using written, verbal, electronic, and/or visual methods. They are skilled at interacting with others: they are active listeners who speak clearly and with purpose, and they are comfortable with terminology that is common to workplace environments. Career-ready individuals consider the audience for their communication and prepare accordingly to ensure the desired outcome.

3. Develop an education and career plan aligned with personal goals.

Career-ready individuals take personal ownership of their educational and career goals and manage their individual plan to attain these goals. They recognize the value of each step in the educational and experiential process, and they understand that nearly all career paths require ongoing education and experience to adapt to practices, procedures, and expectations of an ever-changing work environment. They seek counselors, mentors, and other experts to assist in the planning and execution of education and career plans.

4. Apply technology to enhance productivity.

Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring and using new technology. They understand the inherent risks—personal and organizational—of technology applications, and they take actions to prevent or mitigate these risks.

5. Utilize critical thinking to make sense of problems and persevere in solving them

Career-ready individuals recognize problems in the workplace, understand the nature of the problems, and devise effective plans to solve the problems. They thoughtfully investigate the root cause of a problem prior to introducing solutions. They carefully consider options to solve a problem and, once agreed upon, follow through to ensure the problem is resolved.

6. Practice personal health and understand financial literacy.

Career-ready individuals understand the relationship between personal health and workplace performance. They contribute to their personal well-being through a healthy diet, regular exercise, and mental health activities. Career-ready individuals also understand that financial literacy leads to a secure future that enables career success.

7. Act as a responsible citizen in the workplace and the community.

Career-ready individuals understand the obligations and responsibilities of being a member of a community and demonstrate this understanding every day through their interactions with others. They are aware of the impacts of their decisions on others and the environment around them, and they think about the short-term and long-term consequences of their actions. They are reliable and consistent in going beyond minimum expectations and in participating in activities that serve the greater good.

8. Model integrity, ethical leadership, and effective management.

Career-ready individuals consistently act in ways that align with personal and community-held ideals and principles. They employ ethical behaviors and actions that positively influence others. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the direction and actions of a team or organization, and they recognize the short-term and long-term effects that management's actions and attitudes can have on productivity, morale, and organizational culture.

9. Work productively in teams while integrating cultural and global competence.

Career-ready individuals contribute positively to every team, as both team leaders and team members. To avoid barriers to productive and positive interaction, they apply an awareness of cultural differences. They interact effectively and sensitively with all members of the team and find ways to increase the engagement and contribution of other members.

10. Demonstrate creativity and innovation.

Career-ready individuals recommend ideas that solve problems in new and different ways and contribute to the improvement of the organization. They consider unconventional ideas and suggestions by others as solutions to issues, tasks, or problems. They discern which ideas and suggestions may have the greatest value. They seek new methods, practices, and ideas from a variety of sources and apply those ideas to their own workplace practices.

11. Employ valid and reliable research strategies.

Career-ready individuals employ research practices to plan and carry out investigations, create solutions, and keep abreast of the most current findings related to workplace environments and practices. They use a reliable research process to search for new information and confirm the validity of sources when considering the use and adoption of external information or practices.

12. Understand the environmental, societal, and economic impacts of decisions.

Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact other people, organizations, the workplace, and the environment. They are aware of and utilize new technologies, understandings, procedures, and materials and adhere to regulations affecting the nature of their work. They are cognizant of impacts on the social condition, environment, workplace, and profitability of the organization.

Statement for Civil Rights

All educational and vocational opportunities are offered without regard to race, color, national origin, gender, or physical disability.



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