Career-Technical Credit Transfer (CT)²
Supply Chain Management Technology Career-Technical Assurance Guide (CTAG)
January 28, 2016

The following courses, indicated by a Career-Technical Articulation Number (CTAN), are eligible for postsecondary credit and transfer among Ohio's public secondary career-technical institutions and state institutions of higher education. The SCTAI alignment document with ODE competencies and postsecondary learning outcomes is available on the ODHE website at https://www.ohiohighered.org/transfer/ct2/ctags.

CTSCM001 - Introduction to Supply Chain Management Technology	Credits: 3 Semester Hours
Advising Notes: In order to access postsecondary college credit for this CTAN, the student must: • Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution. • Successfully complete ODE secondary course **Supply Chain Management Technology (142025)** and earn a qualifying score of *73 or higher* on the corresponding end-of-course examination.	Secondary institutions must have pathway approval from the Ohio Department of Education. Certificate of Affirmation assurances are now incorporated into the CTE-26 application process.

CTSCM002 - Logistics and Transportation	Credits: 3 Semester Hours
Advising Notes: In order to access postsecondary college credit for this CTAN, the student must: • Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution. • Successfully complete ODE secondary course **Logistics Management (142030)** and earn a qualifying score of *65 or higher* on the corresponding end-of-course examination.	Secondary institutions must have pathway approval from the Ohio Department of Education. Certificate of Affirmation assurances are now incorporated into the CTE-26 application process.

CTSCM003 - Purchasing, Sourcing, and Supplier Management	Credits: 3 Semester Hours
Advising Notes: In order to access postsecondary college credit for this CTAN, the student must: • Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution. • Successfully complete <u>ODE secondary course **Operations Management (142020)**</u> and earn a qualifying score of ***60 or higher*** on the corresponding end-of-course examination.	Secondary institutions must have pathway approval from the Ohio Department of Education. Certificate of Affirmation assurances are now incorporated into the CTE-26 application process.

The CTAN identifies the learning outcomes that are equivalent or common in introductory technical courses. In order for students to receive credit under these agreements, the career-technical secondary programs and the post-secondary institutions must document that their course content matches the learning outcomes in the CTANs. In accordance with ORC 3333.162, industry standards and certifications provide documentation of student learning. Recognized industry standards are expectations established by business, industry, state agencies, or professional associations that define training program curricular requirements, established certification or licensure criteria, and often serve as the basis for program accreditation. Where industry standards do not exist, faculty panels make the determination for other program and/or student requirements that serve as the basis for the award of credit. For this CTAN faculty have approved the use of the Ohio Department of Education, End-of-Course Examinations, created by a third-party and with faculty input.

Requirements and Credit Conditions:

1. The receiving institution must have a comparable program, major, or courses that have been approved through submission to the Ohio Department of Higher Education (CT)^2 approval process for the CTANs listed in this document.
2. Credits apply to courses in the specified technical area at Ohio's public institutions of higher education, provided that the institution offers courses in the specific technical area. In the absence of an equivalent course, and when the institution offers the technical program, the receiving institution will guarantee to grant and apply an equivalent credit value of the Career-Technical Articulation Number (CTAN) toward the technical requirements of the specific degree/certificate program.
3. The applicant must provide proof to the receiving institution that they successfully completed a course that has been approved through the (CT)^2 approval process and that they earned a qualifying score on the end-of-course examination.
4. A career-technical student seeking credit under the terms of this CTAG must matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
5. A career-technical student who meets all eligibility criteria will receive the credit hour value for the comparable course(s) as offered at the receiving state institution of higher education.
6. The admission requirements of individual institutions and/or programs are unaffected by the implementation of (CT)² outcomes.
7. The transfer of credit through this CTAG will not exempt a student from the residency requirements at the receiving institution.
8. Public/State-assisted institutions seeking participation in these statewide articulations must document course equivalency (how learning outcomes are met and measured). Review will be conducted by the Supply Chain Management Technology CTAG Faculty Review Panel. All submissions for approval must be submitted electronically through the Course Equivalency Management System (CEMS).

CTSCM001 - Introduction to Supply Chain Management Technology | **Credits: 3 Semester Hours**

General Course Description: This course provides an overview of Supply Chain Management Technology including its role and purpose across organizations, the various strategies and techniques used to improve organizations, analysis and performance measurement tools to ensure improvement, the integration of technology into the supply chain and global and emerging issues impacting the financial, legal, environmental and security aspects of organizations.

Credits: 3 Semester Hours

Learning Outcomes:

1. * Demonstrate basic understanding of the principles of Supply Chain Management (SCM) and its role and purpose within the larger business environment and define the term "supply chain management"
2. * Explain common SCM strategies, techniques, and procedures and when these may be used within differing business environments
3. * Discuss key concepts of SCM performance measurement, common metrics and analysis tools used in SCM decision-making
4. * Identify various types of SCM information systems, electronic communication and technology used within the business environment
5. * Explain the effects of global and emerging trends on SCM including financial, environmental, legal, and security impacts

Asterisk Indicates Essential Learning Outcomes

CTSCM002 - Logistics and Transportation | **Credits: 3 Semester Hours**

General Course Description: Logistics is concerned with the design and management of systems for the movement of products from points of production to points of consumption. Such systems typically encompass activities such as areas of safety, transportation, warehousing, materials handling, inventory planning, facility location, scheduling, and purchasing of transportation services.

Credits: 3 Semester Hours

Learning Outcomes:

1. * Identify the basic modes of transportation
2. * Explain the advantages/disadvantages of movement by various transportation modes
3. * Describe the traffic/logistics management function and its role in carrier selection, delivery performance, rate determination and rate negotiation
4. * Explain how logistics/transportation costs can impact competition, economies of scale and customer satisfaction
5. * Explain technologies used by carriers to track the movement and storage of inventory between supplier and customer examples include bar code, Radio Frequency Identification, and Global Positioning System
6. * Explain how logistics warehouse management systems, distribution requirements planning, and inventory management can impact cost and customer service

Asterisk Indicates Essential Learning Outcomes

General Course Description: This course examines the role of purchasing/sourcing within an integrated supply chain and how the management of suppliers is critical to the effectiveness and efficiency of today's organization. The course addresses issues of process, tools and techniques, metrics, laws, and emerging trends.

Credits: 3 Semester Hours

Learning Outcomes:

1. * Define and examine the history and role of procurement, purchasing, and sourcing relative to the supply chain and to the current business environment including benefits to the organization
2. * Explain the purchasing/sourcing process including elements of cost management, tools and techniques, contract management, laws, and ethics
3. * Describe activities associated with supplier management including supplier evaluation, supplier selection, supplier quality management, and global sourcing
4. * Identify emerging trends associated with purchasing, supplier, and sourcing management

Asterisk Indicates Essential Learning Outcomes

Supply Chain Management Technology Panel Participants
Fall 2014

Ned Young	Sinclair Community College	SCTAI Panel Lead Expert
John Hale	Clark State Community College	SCTAI Panel Expert
Oya Tukel	Cleveland State University	SCTAI Panel Expert
John Schultz	Columbus State Community College	SCTAI Panel Expert
Steven Sykes	Edison Community College	SCTAI Panel Expert
Walter Zinn	Ohio State University	SCTAI Panel Expert
Prince Ellis	University of Cincinnati Clermont	Item Writer
Lizzi Ngwenya-Scoburgh	University of Cincinnati Blue Ash	Item Writer
Oya Tukel	Cleveland State University	Item Writer
Ned Young	Sinclair Community College	Item Writer
Cyndi Brill	Ohio Department of Education	Program Specialist
Dee Sturgill	Ohio Department of Education	Educational Consultant
Jamilah Tucker	Ohio Department of Higher Education	Director of Career-Technical Transfer Initiatives
Anne Skuce	Ohio Department of Higher Education	Senior Associate Director, SCTAI
Misty McKee	Ohio Department of Higher Education	Assistant Director, SCTAI
Jessi Spencer	Ohio Department of Higher Education	Administrative Coordinator of SCTAI