

CAREER CLUSTER PROGRAM MASTERY LEVELS GRIDS

The Office of Career and Technical Preparation (OCTP) continually strives for quality and consistency in **programs**, and support the concept of Career Pathways as a key component of the Michigan Career Preparation System. The National Career Clusters, which are aligned within our Michigan Career Pathways, will serve as the basis for program and curriculum standards in all state-approved Career and Technical Education (CTE) **programs**. These standards are currently used to approve new programs, and will be reviewed during the Technical Review, Assistance, and Compliance (TRAC) on-site review process for all previously approved courses/programs.

The alignment of your **Michigan CTE Programs to the National Career Clusters** should begin by September of 2004 and be **fully implemented by September 2005**.

Mastery Level Grids

To assist you with the process of curriculum and program review OCTP has developed the Mastery Level Grids. The Mastery Level Grids can be used to identify the National Career Cluster Performance Elements being taught in each course of a program. They can also be used as a counseling tool to assist students in their exploration of a career field. During the school year there will be several training sessions to assist teacher in the many uses of these grids.

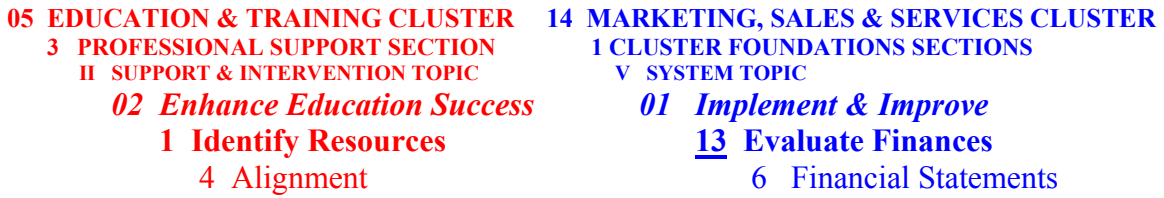
Grid Format

This is a description of the format used in all of the 16 National Career Cluster Mastery Level Grids, as well as, an explanation of the numbering system.

- I. The following is a description of the design of the Assessment Grids system:
 1. The **Topic** areas are in **bold UPPER CASE** letters and preceded by a Roman numeral in bold (**I**).
 2. The **Knowledge & Skill Statements** are in *lower case bold italics* and are preceded by an Arabic numeral without a decimal in **(1)**.
 3. The **Performance Elements** are **lower case bold face** and are preceded by an Arabic numeral with at least one decimal place number in **(1.1)**.
 4. The Measure Criteria is in lower case and preceded by an Arabic numeral with at least two decimal places numbers not in bold (1.11).
 5. There are five levels of competency:
 - **N** = Not exposed to task,
 - **1** = Exposed to task,
 - **2** = Accomplishes task with help,
 - **3** = Accomplishes task to criteria,
 - **4** = Exceeds criteria and/or able to teach task.

- II. An explanation of the number system used to identify each Career Cluster, Cluster Pathway, Topic Pathway, Knowledge and Skills Statement, Performance Element, and Measurement Criteria is as follows:

For example: # 053II02.14 or 141V01.136 can be read as follows:



- The first two numbers 05 indicates the National Career Cluster numbered in alphabetic order (see pages 2 and 3).
- The next number is the Cluster Pathway or Section number. Number one (1) is always the Career Foundations.
- The next two numbers show the Topic Pathway in a Roman Numeral II.
- *The next two numbers lead you to the Knowledge and Skill Statement within that Topic Pathway.*
- **The first number following the decimal point is the number of the Performance Element under the above Knowledge and Skill Statement. If the number is underlined this indicates a Performance element of 10 or above.**
- The last number or the last two numbers indicate the Measurement Criteria item.

Five additional columns have been added to the right side of the grids to assist the local district identify where a performance element is taught. When using these columns indicate the level at which the performance element is expected to be performed in that course by placing a number in the column box below the course using the N to 4 scale described above.

The columns to the left of the performance elements, with the N through 4, are to indicate the program performance expectation level.

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To see the complete **Mastery Level Grid** for a specific area [click on the blue title of the Career Cluster Table of Contents](#) you would like to view. The Contact Person's name and contact information is below each National Career Cluster title.

01. AGRICULTURE, FOOD AND NATURAL RESOURCES

Randy Showerman -- 517-355-6580 - showerma@msu.edu

1.	Cluster Foundations	1
2.	Food Products and Processing Systems	11
3.	Plant Systems	12
4.	Animal Systems	13
5.	Power, Structural and Technical Systems	15
6.	Natural Resources Systems	19

7.	Environmental Service Systems	22
8.	Agribusiness Systems	26

02. ARCHITECTURE AND CONSTRUCTION

Patricia Talbott-Dills - - 517-335-0359 - talbottp@michigan.gov

1.	Cluster Foundations	1
2.	Design/Pre-Construction	7
3.	Construction	9
4.	Maintenance/Operations	9

03. ARTS, AV TECHNOLOGY AND COMMUNICATIONS

Glenna Zollinger-Russell - - 517-241-2072 - - zollinger-russellg@michigan.gov

1.	Cluster Foundations	1
2.	Audio and Video Technology and Film	14
3.	Journalism and Broadcasting	16
4.	Performing Arts	19
5.	Printing Technology	25
6.	Telecommunications	27
7.	Visual Arts	30

04. BUSINESS MANAGEMENT AND ADMINISTRATION

Karen Pohja - - 517-335-0381 - - pohjak@michigan.gov

1.	Cluster Foundations	1
2.	Management	9
3.	Business Financial Management and Accounting	13
4.	Human Resources	16
5.	Business Analysis	20
6.	Marketing	22
7.	Administrative and Information Support	29

05. EDUCATION AND TRAINING

Carol Clark - - 517-241-4355 - - clarkcarol@michigan.gov

1.	Cluster Foundations	1
2.	Administration and Administrative Support	13
3.	Professional Support Services	17
4.	Teaching/Training	19

06. FINANCE

Karen Pohja - - 517-335-0381 - - pohjak@michigan.gov

1.	Cluster Foundations	1
2.	Financial and Investment Planning	5
3.	Business Financial Management	10
4.	Banking and Related Services	12
5.	Insurance Services	14

07. GOVERNMENT AND PUBLIC ADMINISTRATION

1.	Cluster Foundations	1
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2.	Governance	4
3.	National Security	5
4.	Foreign Service	6
5.	Planning	7
6.	Revenue and Taxation	8
7.	Regulation	9
8.	Public Management and Administration	9

08. HEALTH SCIENCES

Carol Clark -- 517-241-4355 -- clarkcarol@michigan.gov

1.	Cluster Foundations	1
2.	Therapeutic Services	5
3.	Diagnostics Services	6
4.	Health Informatics	9
5.	Support Services	10
6.	Biotechnology Research and Development	

09. HOSPITALITY AND TOURISM

Karen Pohja -- 517-355- 0381 -- pohjak@michigan.gov

1.	Cluster Foundations	1
2.	Restaurant and Food/Beverage Services	8
3.	Lodging	11
4.	Travel and Tourism	15

10. HUMAN SERVICES

Carol Clark -- 517-241-4355 -- clarkcarol@michigan.gov

1.	Cluster Foundations	1
2.	Early Childhood Development and Services	3
3.	Counseling and Mental Health Services	6
4.	Family and Community Services	9
5.	Personal Care Services	11
6.	Consumer Services	14

11. INFORMATION TECHNOLOGY

Karen Pohja -- 517-355-0381 -- pohjak@michigan.gov

1.	Cluster Foundations	1
2.	Network Systems	15
3.	Information Support and Services	20
4.	Interactive Media	25
5.	Programming and Software Development	29

12. LAW, PUBLIC SAFETY AND SECURITY

Carol Clark -- 517-241-4355 -- clarkcarol@michigan.gov

1.	Cluster Foundations	1
2.	Correction Services	7
3.	Emergency and Fire Management Services	14

4.	Security and Protective Services	17
5.	Law Enforcement Services	27
6.	Legal Services	38

13. MANUFACTURING

Patricia Talbott-Dills -- 517-335-0359 -- talbottp@michigan.gov

1.	Cluster Foundations	1
2.	Manufacturing Production Process Development .	8
3.	Production	14
4.	Maintenance Installation and Repair	19
5.	Quality Assurance	24
6.	Logistics and Inventory Control	29
7.	Health, Safety and Environment Assurance	31

14. MARKETING, SALES AND SERVICES

Karen Pohja -- 517-335-0381 -- pohjak@michigan.gov

1.	Cluster Foundations	1
2.	Management and Entrepreneurship	11
3.	Professional Sales and Marketing	14
4.	Buying and Merchandising	16
5.	Marketing Communication and Promotion	20
6.	Marketing Information Management and Research	24
7.	Distribution and Logistics	28
8.	E-Marketing	32

15. SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

Patricia Talbott-Dills -- 517-335-0359 -- talbottp@michigan.gov

1.	Cluster Foundations	1
2.	Engineering and Technology	4
3.	Science and Mathematics	8

16. TRANSPORTATION, DISTRIBUTION AND LOGISTICS

Patricia Talbott-Dills -- 517-335-0359 -- talbottp@michigan.gov

1.	Cluster Foundations	1
2.	Transportation Operations	9
3.	Logistics Planning and Management Services	10
4.	Warehousing and Distribution Center Operation . .	13
5.	Facility and Mobile Equipment Maintenance	15
6.	Transportation Systems/Infrastructure Planning, Management, and Regulation	16
7.	Health, Safety and Environmental Management . . .	17
8.	Sales and Services	18