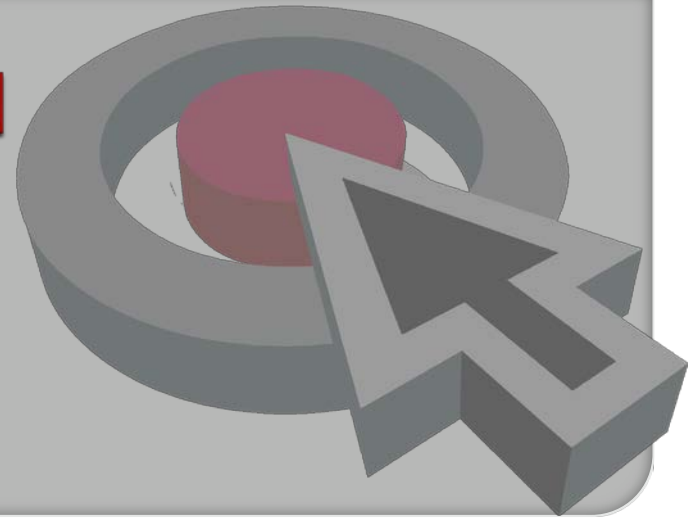# CAREER-TECHNICAL EDUCATION TECHNICAL TESTING SYSTEM (10-08-15)

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Ohio | **Department** of **Education**

THE OHIO STATE UNIVERSITY

CENTER ON EDUCATION AND TRAINING FOR EMPLOYMENT
COLLEGE OF EDUCATION AND HUMAN ECOLOGY

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WebXam
NEWS

HOME   ITEM WRITING   PRETESTS   TEACHER TEST REVIEWS   WEBXAM CALENDAR   USER'S WORKSHOP   CONTACT

September 2015 WebXam Newsletter

The following articles include a number of important announcements for the 2015-2016 WebXam school year.

Continue reading →

This entry was posted in Announcements on September 28, 2015 by admin.

WebXam Text-to-Speech

What is WebXam Text-to-Speech?

Text-to-Speech, or TTS for short, uses computer software to convert text into audible speech. The WebXam TTS solution was designed to be a simple and intuitive solution for students with an IEP that allows test questions to be read aloud to them.

Continue reading →

This entry was posted in Announcements on August 14, 2015 by admin.

AGENDA

- Update: Technical Testing System for Ohio CTE

  - Standards / testing: shift from occupation→ pathway→ course

    - End-of-Course testing: Procedures, Quality Assurance, & Plans

  - Pretesting for Courses: Design-Launch, Year 2, Notes

- Handoff to IT Team: Just a posse – of tech wizards

    - System overview and demonstrations

- Your questions……… addressed throughout, although policy questions are referred to ODE Office of CTE

Program
Improvement

Local Assessments
CTSO
Performance Events
End of
Course Exams

Reporting
Performance

Value to Students

Industry Credentials

Complement
Local Assessment
System

Support
Statewide
Transcripted
Credit Transfer
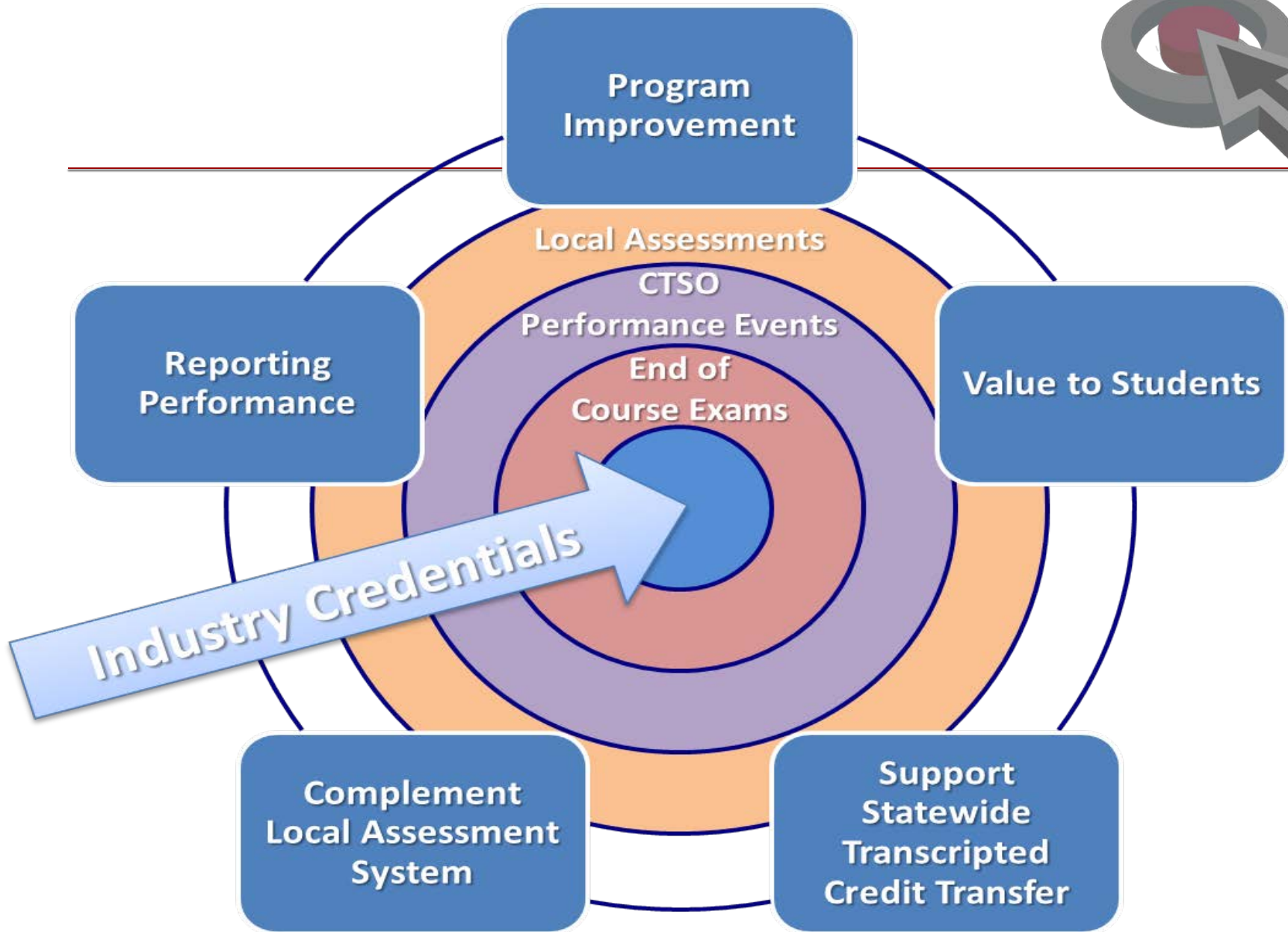
I. OHIO CTE TESTING SYSTEM

◉ Testing System Uses shown in previous slide

- Data for **federal and state performance measures** (Technical Skill Attainment = 2S1 indicator; Ohio district report cards)

- Data for ODE-CTE and local districts to use in **program improvement (optional pre-post testing for gain & OTES)**

- Complement local systems for **assessing student performance**

- Build secondary-postsecondary relationships to develop statewide-bilateral **transcripted credit transfer from secondary to postsecondary institutions**

- Reports that students **value to communicate** success–digital badges used for instructors (SME); consideration for students

Where do tests come from?
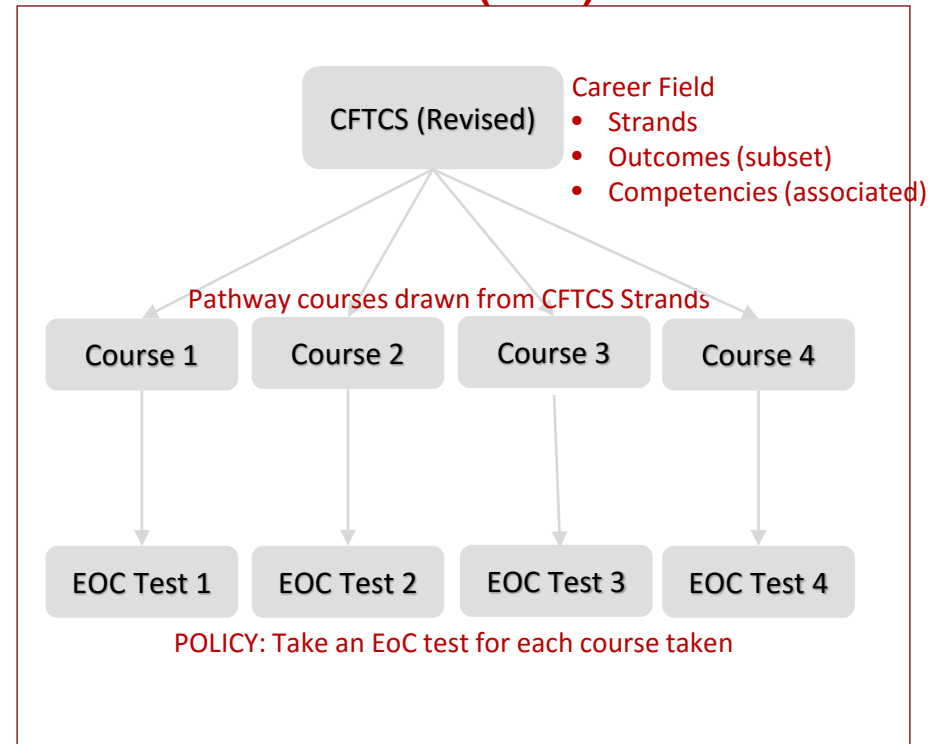## Ohio Subject-Matter Experts are Key as shown below!
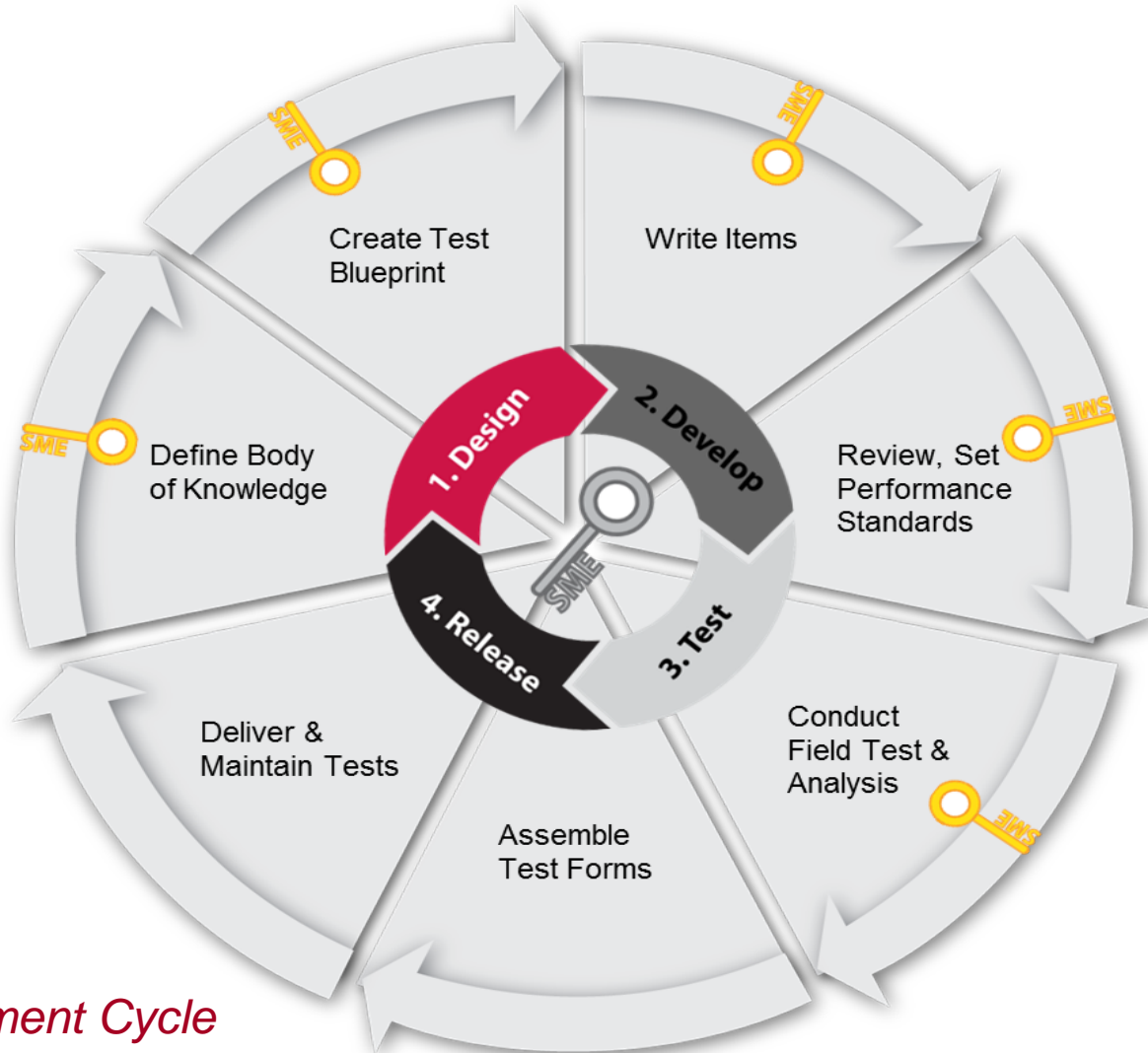
Test Development Cycle

ITEM BANK CREATION-REVIEW

- Test measures 1 course knowledge-skill

  - Course outlines (field input)

- Live test from 10-5-15 to 5-6-16

  - Encourage districts/instructors who need performance data for juniors to participate (after course instruction)

  - Older tests available in transition (1 year) for seniors, then removed per policy

- Rescore-post posttest scores in late May 2016 with performance standards, if test taker target reached (~150)

  - Analyze, remove poor items, rescore tests, ship back to districts for teachers, EMIS use

CTE End-of-Course (EOC) Test Structure

CFTCS (Revised)

Career Field
- Strands
- Outcomes (subset)
- Competencies (associated)

Pathway courses drawn from CFTCS Strands

| Course 1 | Course 2 | Course 3 | Course 4 |

| EOC Test 1 | EOC Test 2 | EOC Test 3 | EOC Test 4 |

POLICY: Take an EoC test for each course taken

NEW TESTS: PHASE II (2015)

- Current EoC tests (40 items, ~6-14 courses)
  - Challenge of items (Bloom & Webb levels)
    - C1 = ~ 70%; recall (vocab, tools, facts); Webb DoK Level 1
    - C2 = ~ 30%; application, analysis, evaluation; Webb DoK Level 2
    - Scenarios about entry-level workplace (% of items)
  - Item bank size at ~95 per course since 2013
- EoC pre-post forms now offered in 100+ courses (post-tests required, pretests **optional**)

HOW DO NEW TESTS DIFFER?
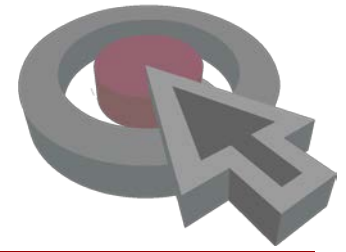
- ⦿ Course-based model: <u>Content-skill standards and tests</u>

  - Career Field (CF) Technical Content Standards revision in cohorts

    - Six CF in 2012-13, five CF in 2013-14, third cohort CF (Hospitality, FCS), final "conversion" is Education & Training (2015-16)

  - Wrote items 2014-15, now working on FY15 item writing (Hospitality-Tourism, Family-Consumer Sciences, Ag-Env Systems)

  - Field testing closes early (~5-6-16), <u>rescore & post for EMIS</u>

- ⦿ Performance standards for tests – instructor-recommended

  - <u>Proficient</u> is the traditional mastery point (pass-fail), while <u>Advanced</u> designation recognizes higher performance (Nonproficient ….)

Hospitality and Tourism Career Field
Dining Room Service and Operations
Subject Code: 330100
Outcome & Competency Descriptions

Admin stuff

Course Description:
Students will apply strategies and techniques to identify and meet dining guest needs. They will provide table and beverage service; maintain eating areas, meeting spaces and serving stations; manage online reservations and orders; and monitor table turns, wait lines and table assignments. Nutritional analysis, types of table service, safety and sanitation, cultural intelligence, employability skills and communications will also be addressed.

Content

Outcome 2.6.　　**Customer Services:** Apply strategies and techniques to identify and meet guest needs and to establish a sense of connectedness with guests in a hospitality and tourism environment.

Outcome

Competencies:

2.6.1. Interpret unspoken needs based on understanding of human behavior, preference patterns and prior experiences.

2.6.2. Determine strategies for responding to potentially sensitive, compromising, fraudulent or dangerous situations.

2.6.3. Accommodate special needs and specific requests of customers.

2.6.4. Process customer orders accurately and efficiently while building rapport.

2.6.5. Balance multiple resource demands, and maintain service standards during peak volumes.

2.6.6. Respond to customer inquiries, resolve their complaints and follow up on situations.

2.6.7. Take and process customer payments.

2.6.8. Identify and deliver on opportunities to make a difference in the customer experience (i.e., positive moments of truth).

2.6.9. Leverage customer experiences to build brand preference and loyalty.

2.6.10. Identify and utilize credit card fraud prevention methods, and understand the importance of identity theft controls.

Competencies

An "X" indicates that the pathway applies to the outcome.

Pathways		Hospitality		Culinary Arts
	x		x	

Pathways

How Are Items Created?

- Course outline created using strands-outcomes-competencies from CFTCS – structures EoC tests and offers blueprint opportunities

  - <u>ALL</u> competencies in revised CFTCS [formerly only Essential]

  - Item writers recruited for workshops (2+2 days format; usually 3 WS)

  - Orient to processes using distance webcast (YouTube: 4 videos)

  - At CETE, smaller teams with facilitator (operator of S-CAT software tool); create items Days 1-3 with large group review Days 3-4

  - Obtain more items for bank to support pretesting, practice tests?

    - Still … considering: item writing by instructors with web drop off & QA

    - Still … considering: collaborating with other states to share items

SAMPLE C2 ITEM: Hypothetical Ag-Math

Your herd of {cattle/poultry/sheep/swine} {Charolais/Angus/Polled Hereford} consists of {# animal} {5/10/15 ; 3/7/11} animals. A daily ration was established in consultation with the county extension agent at {3/5/7 (weight unit)} of {grain/hay/corn (fodder)} per {day/week (time unit)}. You are budgeting for the next year.

Q_A. If grain/hay is priced at 2.25/2.50/3.50 per lb., what would it cost to feed this herd for {one/two/three} {days/weeks/months}?
- $
- $$
- $$$
- $$$$

Q_B. If you are feeding a composite ration {e.g., grain and hay}, what would the costs be for a {time unit}?

SAMPLE <u>C1</u> ITEMS: Hospitality & Tourism

FAT TOM = memory aid for *factors in foodborne pathogen growth*

Q1. What does the first term in FAT TOM represent?
   Food, **A**cidity, **T**ime (keyed response)

Q2. What does the second term in FAT TOM represent?
   Temperature, **O**xygen, & **M**oisture (keyed response)

SAMPLE <u>C1</u> ITEM: Family & Consumer Sciences

Q3. Cross-contamination in the home is avoidable if
   •Surfaces & tools cleaned between uses (keyed response)
   •Surfaces & tools switched between uses (alternative key)

2015-16 CTE Technical-Testing Project Schedule

Item-Writing Workshops

Fall 2015*
Hospitality & Tourism
Culinary
Hospitality
Family and Consumer Sciences
Content Areas

Winter-Spring 2016*
Agricultural-Environmental Systems
Patchwork: Construction, Engineering, Health Sciences

now recruiting SMEs for participation

Testing Windows

Pretesting System
Fall and Winter windows
- August 17 – September 18 (extended)
- January 4 – 29 (2016)
- Second year - $1.50 / course

Field-Test Window
- Closes May 6th, 2016 (Friday)

Live-Test Window
- Closes June 3th, 2016 (Friday)

Keep up to date on news.webxam.org
PRETESTS at news.webxam.org/pretests
SME info at news.webxam.org/item-writing

How Is QA Performed?

- Quality Assurance is best practice – how completed?

- Group review by item writing panel (Day 3-4)

  - First, evaluate items by course in item banks (90-95 items) on technical accuracy-correctness, quick tweaks OK (Pass #1)

  - Second, rate all items and overall bank by course (Pass #2)

    - Essentiality, Quality, & Proficient-Advanced Performance Standards item-by-item
    - Finish by rating overall quality of item bank on 6 scales

- Then, program specialist (consultant) reviews item bank

  - Actions include re-linking, dropping items, etc.

HOW ARE ITEMS RELEASED?

- Part 2 of QA is a field test of entire item bank
  - "Live Beta" model – post all items in WebXam following ODE staff review of EoC banks *in early Oct but end in May*
    - NEW testing website updated early October – expect annually in October but only after pretesting window closes
  - Analyze items (difficulty, discrimination) if 150 test-takers
  - Rescore using only good items to report out to ITC-districts (2015-16: end field test 5-6-16, analyze, repost late May)
- EoC test use builds up from Year 1-2-3-4……(first release through operational use)

EoC Tests: Year 1 Release

- We call them field tests, but……possibly confusing

  - IDEA: try out the items with students Oct 2015 to May 2016

- Year 2 (required for some courses):

  - Transportation (Ground, Air pathways, some courses)

  - Information Technology (all 4 pathways, some courses)

  - Ag Bioscience (single pathway, 7 courses need more participation)

- Year 1:

  - Arts-Communication (3 pathways)

  - Business-Finance-Marketing (single pathway each career field)

  - Ag-Environmental Systems new courses (~13, across pathways)

CHANGES 2015-16

- Districts do not pay for **posttests** (since 2011)

  - Exceptions: Employability, **pretests** (more below)

  - No more paper-pencil tests

- Teacher test reviews held at CETE or your sites

- Forms maintained, released this week for 2015-16

- Practice tests by pathway: Law-Public Safety

  - Criminal Justice & Firefighting/EMS first to launch

  - 20 items sampled across courses; teachers AND students

Career Field / Focus Area	Pathway(s)	Timing-Status
Construction	*MEP (HVAC-Elect-Plumbing) ; Structural (Carpentry-Masonry); Design (Drafting, Construction Mgmt, Building-Prop)*	Most complete
Health Sciences	*Exercise Science; Allied Health-Nursing; Health Information Mgmt; Medical Bioscience*	Most released
Info Technology	*IM (2014); ISS (2014); NS (2014); PSD (2014)*	**Yr 2 Field Test**
Law-Public Safety	*Criminal Justice; Firefighter EMT*	**All complete**
Manufacturing-Engineering	*Operations (Welding, Precision Machining) Design (Engineering Drafting, Robotics, CIM)*	Most complete
Transportation	*Ground (2014), Air (2014)*	**Yr 2 Field Test**
Arts-Communication	*3 pathways; Underway and nearly complete*	**Year 1 field test**
Business-Finance-Marketing	*1 pathway each; completed item writing*	**Year 1 field testing**
Hospitality-Tourism, Family Consumer Sciences	*Culinary/Lodging Pathways; FCS focus areas*	**Writing items 2015-16**
Other Work as Assigned	*New courses in CF/pathways; revisions to Ag-Env Systems*	Construction, Health, Engineering

II. Pre-Post Testing

- CETE awarded ODE-approved vendor status in 2014

  - Annual reapplication to maintain

- Launched pretests to document student gain

  - Design for forms: 40-item pre & post-test (content balanced)

  - Always need items—Replenishment of item banks

  - Introduced in EoC pathways during FY14, others as CFTCS converted to course structure (~110 as of August 2015)

  - Small charge supports PRETEST delivery ($1.50)

  - WebXam ordering tab (left side): reviewed next segment

III. Teaching Professions

- TP pathway, part of Education-Training Career Field, uses portfolio to evaluate technical skill attainment

  - Tab on left – "Assessors" is used by teachers to select two persons to read and evaluate the portfolio with rubric

  - "Call" a third assessor if overall scores differ >15 (mandatory)

  - In 2014-15, expecting 500-600 students to be assessed

  - <u>System can be used for scoring-storing other rubric-based performances</u> (projects or capstones)

- Expect to develop knowledge-skill test with new CFTCS & course outlines (2016-17)

SUMMARY

⊙ CETE staff ……..

  • Follows best practices to develop, deploy, and maintain the Ohio CTE Technical Testing System

  • Tries to be responsive to input from local districts and collaborators ODE & OBR, consistent with <u>score credibility</u>

  • Requests YOUR assistance to complete item writing and review during 2015-16, regular maintenance afterward, and continue renewal cycles

  • Plans strategically – pretest, performance, data-driven decisions

⊙ So, if you want to be at the table, contact CETE recruiters to express interest (or ODE program specialists in Hospitality-Tourism, FCS)

  • <u>moore.179@osu.edu</u> [<u>http://news.webxam.org/item-writing</u>]