

# DACUM Research Chart for Information Systems Specialist

## DACUM Panel

Walter Augenstein  
Software Engineer  
Nationwide

Craig Derksen  
Programmer/Analyst  
Cotts Systems

Julie Quackenbush  
Project Manager  
Nationwide

## DACUM Facilitators

Wan Hussin Wan Ahmad  
Vocational Training Officer  
Ministry of Youth and Sport

Roslinda Daud  
Vocational Training Officer  
Center for Instructor Advance  
Skill Training (CIAST)

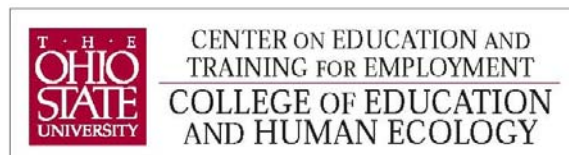
Mohd Faizal Tokeran  
Vocational Training Officer  
Department of Skills Development

Dawn M. Snyder, Team Leader  
CETE/OSU

Sponsored by



Produced by



1900 Kenny Road  
Columbus, OH 43210

September 13-14, 2007

# DACUM Research Chart for Information Systems Specialist

| Duties   |                                                | ← Tasks                              |                                           |                                               |                                     |                                    |
|----------|------------------------------------------------|--------------------------------------|-------------------------------------------|-----------------------------------------------|-------------------------------------|------------------------------------|
| <b>A</b> | <b>Develop User System</b>                     | A-1 Gather system requirements       | A-2 Identify project risks                | A-3 Build the system model                    | A-4 Design system reports           | A-5 Design application screens     |
| <b>B</b> | <b>Perform System Testing</b>                  | B-1 Establish system baseline        | B-2 Validate use cases                    | B-3 Develop test scenarios                    | B-4 Perform regression testing      | B-5 Perform load testing           |
| <b>C</b> | <b>Create System Documentation</b>             | C-1 Finalize comments in source code | C-2 Create system design documents        | C-3 Create system architecture documents      | C-4 Create process flow documents   | C-5 Create online help file        |
| <b>D</b> | <b>Implement User System</b>                   | D-1 Create implementation schedule   | D-2 Develop training materials            | D-3 Bundle software and documentation         | D-4 Deliver bundle to customer      | D-5 Install system software        |
| <b>E</b> | <b>Provide System Support</b>                  | E-1 Perform system troubleshooting   | E-2 Resolve system outages                | E-3 Handle difficult customers                | E-4 Provide consulting to end users | E-5 Provide guidance to management |
| <b>F</b> | <b>Retire Legacy System</b>                    | F-1 Create sunset plan               | F-2 Coordinate system removal             | F-3 Run old and new system in parallel        | F-4 Archive legacy data             | F-5 Remove legacy system           |
| <b>G</b> | <b>Manage Project Activities</b>               | G-1 Articulate technical vision      | G-2 Consult with project team             | G-3 Provide input to work breakdown structure | G-4 Assist in scope management      | G-5 Champion new technologies      |
| <b>H</b> | <b>Participate in Professional Development</b> | H-1 Conduct cross-training           | H-2 Participate in professional community | H-3 Develop presentation skills               | H-4 Attend professional conferences | H-5 Attend college courses         |

|                                     |                                        |                                         |                                       |                                     |                                   |                                     |
|-------------------------------------|----------------------------------------|-----------------------------------------|---------------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|
| A-6 Generate testing database       | A-7 Write program code                 | A-8 Debug program code                  | A-9 Perform unit-level system testing | A-10 Integrate third-party software | A-11 Develop application security | A-12 Write code-level documentation |
| B-6 Create punch list               | B-7 Review source code                 | B-8 Revise source code                  |                                       |                                     |                                   |                                     |
| C-6 Create system user manual       | C-7 Update revision notes              |                                         |                                       |                                     |                                   |                                     |
| D-6 Train system users              | D-7 Conduct post-implementation review |                                         |                                       |                                     |                                   |                                     |
| E-6 Provide technical sales support | E-7 Analyze ongoing system issues      | E-8 Perform trend analysis              | E-9 Refine technical documentation    | E-10 Evaluate new technologies      | E-11 Provide input to procurement |                                     |
| F-6 Document system changes         |                                        |                                         |                                       |                                     |                                   |                                     |
| G-6 Mentor junior staff             |                                        |                                         |                                       |                                     |                                   |                                     |
| H-6 Obtain industry certifications  | H-7 Monitor trade publications         | H-8 Contribute to professional articles |                                       |                                     |                                   |                                     |

---

## General Knowledge and Skills

Programming processes:  
Object-oriented language  
Procedural language  
Batch processing  
Database concepts (e.g., Oracle, Sequel, DB2)  
Client-server concepts  
Presentation skills  
Formal presentation  
Diagram  
Chart  
Problem-solving skills  
Communication skills  
Oral  
Written  
Customer service skills  
Word processing  
Spreadsheet  
Time management skills  
Information technology degree or equivalent experience

## Tools, Equipment, Supplies and Materials

Computer  
Program compiler  
Printer  
Scanner  
Office software  
Project management software  
Diagrams, charts  
E-mail software  
Telephone  
Office supplies  
Database software  
Time reporting software  
Access to customer relationship management software  
Test development environment software  
Web browser  
Access to corporate servers  
Remote access software  
User manuals  
Incident management software  
Process management software

## Worker Behaviors

Detail-oriented  
Analytical  
Self-starter  
Team player  
Problem solver  
Efficient  
Creative thinker  
Motivated  
Sense of urgency  
Self-confident  
Flexible  
Dependable  
Positive attitude  
Honest  
Customer focused  
Knowledgeable  
Good communicator  
Political savvy

## Future Trends and Concerns

Changes in technology  
Outsourcing  
Telecommuting  
Smart queuing  
Regulatory compliance  
Security  
Privacy  
Open Source