

معاونت پژوهش، برنامه‌ریزی و سنجش مهارت

دفتر پژوهش، طرح و برنامه‌ریزی درسی

# استاندارد آموزش شایستگی Microsoft Access ۲۰۱۶

## گروه شغل

## فناوری اطلاعات

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Ministry of cooperatives  
Labour and Social Welfare



Iran Technical and Vocational  
Training Organization

Deputy of training  
Plan and curriculums office

## Competency Training standard

### Title

**Microsoft Access2016**

### Occupational group

**INFORMATION TECHNOLOGY (IT)**

International code

2519-53-104-1

**Date of Standard Compilation: 2016/03/05**

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Revision Process:

- Scientific content
- According to market
- Equipment
- Tools

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## **Definitions:**

### **Job standard:**

The characteristics ' required competencies and abilities for Efficient Performance in work environment is called "the Job standard", and sometimes "The Occupational standard"

### **Training standard:**

The Training Map for achieving the Job's subset Competencies.

### **Job title:**

Is a set of Tasks and Abilities which is expected from an employed person in the defined level

### **Job description:**

A statement covering the most important elements of a job, namely the position or title of the job, the duties, job's relation with other jobs in a occupational field, the responsibilities, workplace conditions and required performance standards.

### **Course duration:**

The minimum of time which is required to achieve the training objects.

### **Admission requirements:**

The minimum of competencies and abilities which are obligatory for a potential admission.

### **Evaluation:**

The process of collecting evidence and judgment about whether a competency is achieved or not.

Include: written examination, practical examination

### **Required Qualifications for Trainers:**

The minimum of Trainer's technical and vocational abilities which the trainer is required to have.

### **Competency:**

The ability of efficient performing a duty in a variety of workplaces conditions

Knowledge:

The minimum set of facts and mental capacities which is necessary for achieving a competency. This can include science, (Mathematics, physics, chemistry or biology), technology or technical.

### **Skill:**

The minimum coordination between mind and body for achieving an ability or competency. It normally applied to practical skills.

### **Attitude:**

A set of emotional behaviors required for achieving a competency and can have non-technical skills and occupational ethics.

### **Safety:**

The cases which doing or not doing something can cause harm or accident

### **Environmental Consideration:**

A set of consideration about the act which should be done to minimize the environmental damage or pollution.

**Competency Title:**

Microsoft Access 2016

**Competency Description:**

**Microsoft Access** is a DBMS (also known as Database Management System) from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and software-development tools. It is a member of the Microsoft Office suite of applications, included in the Professional and higher editions or sold separately.

Microsoft Access stores data in its own format based on the Access Jet Database Engine. It can also import or link directly to data stored in other applications and databases

**Admission Requirements:**

minimum degree of education: Post first year of high school

minimum physical and mental ability:-

Prerequisite skills: icdl 2

**Course duration:**

*Course duration:* 70 hours

-Theoretical :20 Hours

-Practical :50 Hours

-Apprenticeship:... Hours

-Project:... Hours

**Evaluation :(%)**

*Iran Technical and Vocational*

**IRANTVTO Evaluation :(%)**

Written Examination:25%

Practical Examination:65%

Ethics:10%

**Required Qualifications for Trainers:**

Computer engineer with 3 years experience

## Competency Training Standard

### Competencies

	Title
1	<b>Quick Overview of the Access User Interface</b>
2	<b>Approaches to Database Design</b>
3	<b>Tables and Their Views</b>
4	<b>Tables</b>
5	<b>Table Functions</b>
6	<b>Queries</b>
7	<b>Forms</b>
8	<b>Advanced Forms</b>
9	

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Training standard

Contents analysis form

<b>Title:</b> <b>Quick Overview of the Access User Interface</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
<b>Knowledge and Skill:</b> <ul style="list-style-type: none"> <li>• Access Ribbon                             <ul style="list-style-type: none"> <li>▪ FILE</li> <li>▪ Save a Database as a Template</li> <li>▪ HOME</li> <li>▪ CREATE</li> <li>▪ EXTERNAL DATA</li> <li>▪ DATABASE TOOLS</li> <li>▪ Contextual Tabs</li> </ul> </li> <li>• Quick Access Toolbar</li> <li>• Object Navigation Pane</li> <li>• Access Work Surface</li> <li>• Access Options Dialog Box</li> <li>• Object Overview                             <ul style="list-style-type: none"> <li>▪ Tables</li> <li>▪ Queries</li> <li>▪ Forms</li> <li>▪ Reports</li> <li>▪ Macros and Modules</li> </ul> </li> <li>• Process Overview</li> <li>• Create a Database Using a Wizard</li> </ul>	Determined by the instructor			From Microsoft
<b>Attitude:</b> Speed and accuracy in doing the right thing				
<b>Health &amp; Safety:</b> Compliance with safety protection in the workplace				
<b>Environmental Consideration:</b> Compliance with environmental protection				



Training standard

Contents analysis form

<b>Title:</b> <b>Approaches to Database Design</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: <ul style="list-style-type: none"> <li>• Top-Down Database Design</li> <li>• Bottom-Up Database Design</li> <li>• Reality</li> <li>• Gather Information</li> <li>• Data Mapping</li> <li>• Sample Data Map</li> <li>• Normalization</li> <li>• First Normal Form</li> <li>• Second Normal Form</li> <li>• Third Normal Form</li> <li>• Table Relationships</li> <li>• Relationship Types</li> </ul>	Determined by the instructor			From .....
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard  
Contents analysis form

<b>Title:</b>  <b>Tables and Their Views</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
<b>Knowledge and Skill:</b> <ul style="list-style-type: none"> <li>• Definition and Purpose</li> <li>• Datasheet View           <ul style="list-style-type: none"> <li>▪ Selection Tools</li> <li>▪ Table Layout Tools</li> <li>▪ Sorting and Filtering Tools</li> <li>▪ Print Records</li> <li>▪ Record Navigation</li> <li>▪ Working in Datasheet View</li> </ul> </li> <li>• Design View           <ul style="list-style-type: none"> <li>▪ Open a Table in Design View</li> <li>▪ Design View Layout</li> </ul> </li> </ul>	Determined by the instructor			From .....
<b>Attitude:</b> Speed and accuracy in doing the right thing				
<b>Health &amp; Safety:</b>  Compliance with safety protection in the workplace				
<b>Environmental Consideration:</b> Compliance with environmental protection				

Training standard  
Contents analysis form

<b>Title:</b>  <b>Tables</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
<b>Knowledge and Skill:</b> <ul style="list-style-type: none"> <li>• Creating an Access Database</li> <li>• Data Types</li> <li>• Create a Table in Design View <ul style="list-style-type: none"> <li>▪ Delete a Field</li> <li>▪ Rename a Table</li> </ul> </li> </ul>	Determined by the instructor			From .....
<b>Attitude:</b> Speed and accuracy in doing the right thing				
<b>Health &amp; Safety:</b> Compliance with safety protection in the workplace				
<b>Environmental Consideration:</b> Compliance with environmental protection				

Training standard

Contents analysis form

<b>Title:</b> <b>Table Functions</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
<b>Knowledge and Skill:</b> <ul style="list-style-type: none"> <li>• Importing Data</li> <li>• Linking Tables from External Sources</li> <li>• Import tables from other Databases</li> <li>• Tables from Templates and Application Parts</li> </ul>	Determined by the instructor			From .....
<b>Attitude:</b> Speed and accuracy in doing the right thing				
<b>Health &amp; Safety:</b> Compliance with safety protection in the workplace				
<b>Environmental Consideration:</b> Compliance with environmental protection				

Training standard  
Contents analysis form

Title: Queries	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill:	Determined by the instructor			From microsoft
<ul style="list-style-type: none"> <li>• Queries</li> <li>• Definition and Purpose</li> <li>• Types</li> <li>• Views</li> <li>• Select Queries</li> <li>• Select Queries with Criteria</li> <li>• Logical Operators</li> <li>• Group and Total with Queries</li> <li>• Totals Row with Group By</li> <li>• Query Design View</li> <li>• Review of Select Queries</li> <li>• Review of Select Queries with Criteria</li> <li>• Logical Operators</li> <li>• Parameter Queries</li> <li>• Action Queries</li> <li>• Make Table Queries</li> <li>• Append Queries</li> <li>• Update Queries</li> <li>• Delete Queries</li> <li>• Creating Crosstab Queries</li> <li>• Delete a Query</li> <li>• Rename a Query</li> </ul>				

<p>Attitude:</p> <p>Speed and accuracy in doing the right thing</p>	
<p>Health &amp; Safety:</p> <p>Compliance with safety protection in the workplace</p>	
<p>Environmental Consideration:</p> <p>Compliance with environmental protection</p>	

Equipment & Tools & Materials & Resources (books, site, software...) form

\*Required quantity for each 16 Trainees

From: Microsoft



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Training standard  
Contents analysis form

Title: <b>Forms</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: <ul style="list-style-type: none"> <li>• Forms</li> <li>• Definition and Purpose</li> <li>• Views</li> <li>• Alter a Form</li> <li>• Form Record Navigation</li> <li>• Layout View and Design View</li> <li>• One-Click Forms</li> <li>• Basic Data Entry Form</li> <li>• Basic Multi-Record Form</li> <li>• Datasheet Form</li> <li>• Split Form</li> <li>• Form Wizard</li> <li>• Create a Form with the Form Wizard</li> </ul>	Determined by the instructor			From .....
	Attitude: Speed and accuracy in doing the right thing			
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard

Contents analysis form

<b>Title:</b> <b>Advanced Forms</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
<b>Knowledge and Skill:</b> <ul style="list-style-type: none"> <li>• Design View           <ul style="list-style-type: none"> <li>▪ Form Sections</li> <li>▪ Adding a Header and Footer</li> <li>▪ Adding a Logo to the Header</li> <li>▪ Adding a Title to the Header</li> <li>▪ Adding Fields to a Form</li> <li>▪ Arranging Fields on a Form</li> <li>▪ Spacing Objects on a Form</li> </ul> </li> <li>• Formatting</li> <li>• Tab Order           <ul style="list-style-type: none"> <li>▪ Setting Properties on a Form</li> <li>▪ Controls</li> </ul> </li> <li>• Create Forms with Application Parts</li> <li>• Creating a Subform</li> <li>• Alter a Form           <ul style="list-style-type: none"> <li>▪ Delete Forms</li> <li>▪ Remove Form Controls</li> <li>▪ Format a Form</li> </ul> </li> </ul>	Determined by the instructor			From microsoft
<b>Attitude:</b> Speed and accuracy in doing the right thing				
<b>Health &amp; Safety:</b> Compliance with safety protection in the workplace				
<b>Environmental Consideration:</b> Compliance with environmental protection				



Training standard  
Contents analysis form

Title: Relationships	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: <ul style="list-style-type: none"> <li>• Review</li> <li>• Referential Integrity</li> <li>• Relationships               <ul style="list-style-type: none"> <li>▪ Data Types and Relationships</li> <li>▪ Formalize the Relationship between Tables</li> </ul> </li> <li>• A Few Words about Naming Conventions</li> </ul>	Determined by the instructor			From .....
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard  
Contents analysis form

<b>Title:</b> <b>Macros</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
<b>Knowledge and Skill:</b> <ul style="list-style-type: none"> <li>• Macro Basics <ul style="list-style-type: none"> <li>▪ Open a Table, Form, and Report</li> <li>▪ Run a Query</li> <li>▪ Print a Report</li> </ul> </li> <li>• Running a Macro</li> </ul>	Determined by the instructor			From .....
<b>Attitude:</b> Speed and accuracy in doing the right thing				
<b>Health &amp; Safety:</b> Compliance with safety protection in the workplace				
<b>Environmental Consideration:</b> Compliance with environmental protection				

Training standard  
Contents analysis form

Title: <b>Completing the Desktop Application</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill:	Determined by the instructor			From .....
<ul style="list-style-type: none"> <li>• The Navigation Form</li> <li>• Running Macros from a Navigation Form</li> <li>• Setting the Navigation Form as the Default Form</li> <li>• Splitting the Database</li> <li>• Encrypt with a Password</li> <li>• Distributing the Front-End Database</li> <li>• Database Maintenance</li> <li>• Compact and Repair</li> <li>• Backup/Recover a Database</li> <li>• Maintain Backward Compatibility</li> </ul>				
Attitude: Speed and accuracy in doing the right thing				
Health & Safety:  Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard  
Contents analysis form

Title: <b>Advanced Forms</b>	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: <ul style="list-style-type: none"> <li>• Design View               <ul style="list-style-type: none"> <li>▪ Form Sections</li> <li>▪ Adding a Header and Footer</li> <li>▪ Adding a Logo to the Header</li> <li>▪ Adding a Title to the Header</li> <li>▪ Adding Fields to a Form</li> <li>▪ Arranging Fields on a Form</li> <li>▪ Spacing Objects on a Form</li> </ul> </li> <li>• Formatting</li> <li>• Tab Order               <ul style="list-style-type: none"> <li>▪ Setting Properties on a Form</li> <li>▪ Controls</li> </ul> </li> <li>• Create Forms with Application Parts</li> <li>• Creating a Subform</li> <li>• Alter a Form               <ul style="list-style-type: none"> <li>▪ Delete Forms</li> <li>▪ Remove Form Controls</li> <li>▪ Format a Form</li> </ul> </li> </ul>	Determined by the instructor			From .....
Attitude: Speed and accuracy in doing the right thing				
Health & Safety:  Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				