

IGNITE Michigan at WCC

Prepare for a

HIGH DEMAND CAREER in:

- Software Development • Network Systems Administration • Help Desk

Updated, accelerated programs offer training in:

- Linux/Unix Systems • Java Programming • Microsoft Technology Associate

WCC IT Readiness Certificate

Prerequisite 1 Internet and Computing Core Certification (IC3)

Prerequisite 2 National Career Readiness Certificate (NCRC)

WCC Certificate

- Linux / Unix Systems
- Program In Java

WCC Associate Degree

- Computer Systems and Networking
- Programming In C++
- Programming In Java

Bachelor of Science Degree

- Technology Management
- Computer Science

Questions? Ready to begin?

Call Charlie at **734-677-5137** or Brittany at **734-677-5031**
or email it-talent@wccnet.edu

www.wccnet.edu/community/workforce-development

WCC is proud to partner with: Quicken Loans | Google | The Advisory Board Company | MyBuys | Ann Arbor SPARK | Workforce Intelligence Network IT Council | Washtenaw and Livingston Michigan Works! Agencies

BUILDING, CONNECTING,
& ENRICHING

talent

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

IGNITE Michigan at WCC

High Demand Career News

- 02/03/14** Computer support specialist jobs in Ann Arbor area projected to increase 7.7% from 2008-2018. Network & computer systems administrator positions expected to increase 17.1% during the same period. <http://milmi.org/>
- 01/24/14** 12 percent of Detroit-area CIOs surveyed plan to expand their IT teams in the first half of this year. ... In addition, the report continued, another 68 percent plan to hire only for open IT roles, 17 percent plan to put hiring plans on hold, and 3 percent expect to reduce their IT staff in the first six months of the year. <http://win-semich.org/2014-jobs-outlookit/>
- 12/10/13** 63 percent of U.S. CIOs said it's somewhat or very challenging to find skilled IT professionals today. It is most challenging to find skilled talent in the functional areas of networking (17 percent), security (14 percent) and help desk/technical support (13 percent). Eighty percent of Detroit-area business executives plan to hire IT professionals in the first half of 2014, either to expand or fill vacant positions. This is seven points higher than results from the previous six months (73 percent). <http://rht.mediaroom.com/2013-12-10-U-S-CIOs-Reveal-Hiring-Plans>
- 03/2012** Microsoft Corp. predicts the creation of 12,500 IT jobs in Metro Detroit by 2015. <http://www.growdetroit.com/microsoft-cloud-computing-equals-12500-detroit-jobs/>
- 2012** Projections Central projects that from 2010 to 2020, Michigan will see more than a 20% increase in network and computersystems administrator positions and 37% increase in software developer job openings. <http://www.projectioncentral.com>

Occupation	2012 Median Hourly Wage United States	2012 Median Hourly Wage Michigan	2010 Job Openings Michigan	2020 Job Openings Michigan
Network and Computer Systems Administrators	\$34.88	\$33.59	8,030	9,820 +22% increase from 2010
Software Developers, Systems Software	\$47.49	\$39.60	6,550	8,960 +37% increase from 2010

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

BUILDING, CONNECTING,
& ENRICHING

talent

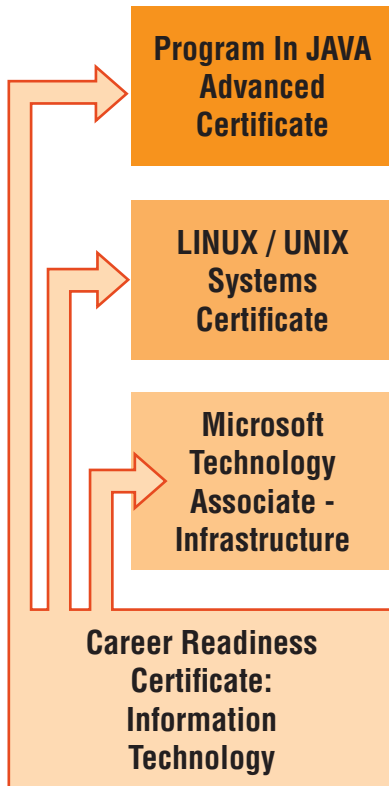
For more information call **734-677-5137**

or **734-677-5031**

www.wccnet.edu/community/workforce-development

or email it-talent@wccnet.edu

IT Readiness Certificate Program: Information Technology



CIS 1017 (non-credit, articulates for 3 credits)

The IT Career Readiness Certificate program at WCC offers the opportunity to explore the IT Industry while practicing relevant basic employment skills through a series of three specially designed modules. The course is conducted in blended format, with one weekly on-campus meeting and the balance of instruction and activities online.

Prerequisite:

IC3 certification. You must submit proof of this certification at least one week before the class start date. Co-requisite: NCRC+ (Silver) – must be earned by the end of the course.

Module 1: An Orientation to Online Learning

Develop your online learning skills with this orientation to Web-based instruction. You'll learn how to use the Blackboard Learning Management System by using it for this blended course, including logging in, navigation, online quizzes, and communication tools. Basic computer literacy topics will also be reinforced.

Module 2: Is IT for Me?

Explore the multi-faceted field of Information Technology – what jobs are in demand and what skills are needed to succeed in the industry? You'll research market demand along with training and internship opportunities so that you can match your skills and potential to a viable career path in IT.

Module 3: Non-technical but Necessary Skills for IT

IT employers agree: To be successful in the industry, you must not only have the technical skills required, you must also be able to communicate effectively, collaborate within a team setting, manage change and adapt in an ever-changing environment, solve problems in a logical and systematic manner, act ethically and respectfully, and build connections both inside and outside of your organization. Develop these important 'soft skills' as part of a real-world team project that will give an authentic edge with your future employers.

Career Readiness Certificate can articulate to one of the following WCC IT Professional Tracks:

Microsoft Technology Associate-Infrastructure (MTA) certification
LINUX/UNIX Systems Certificate
Programming in Java Advanced Certificate

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

BUILDING, CONNECTING,
& ENRICHING

talent

For more information call **734-677-5137**
or **734-677-5031**

www.wccnet.edu/community/workforce-development

or email it-talent@wccnet.edu

Microsoft Technology Associate - Infrastructure Course

Program In JAVA
Advanced
Certificate

LINUX / UNIX
Systems
Certificate

Microsoft
Technology
Associate -
Infrastructure

Career Readiness
Certificate:
Information
Technology

In this course, students are introduced to the fundamental concepts of Windows networking as required for the Microsoft Technical Associate Certification. Four knowledge domains comprise this course: Networking Fundamentals, Security Fundamentals, Operating System Fundamentals, and Windows Server Fundamentals.

Exam Prep CNT 100 – Introduction to Windows Networking (4 credits)

Module 1 – Windows Operating System Fundamentals

Understanding operating system configurations, installing and upgrading client systems, managing applications, managing files and folders, managing devices, and understanding operating system maintenance.

Module 2 – Windows Server Administration Fundamentals

Understanding server installation, server roles, active directory, server storage, server performance management, and server maintenance.

Module 3 – Networking Fundamentals

Understanding network infrastructures, network hardware, and protocols and services.

Module 4 – Security Fundamentals

Understanding security layers, operating system security, network security, and security software.

Associated Industry Certification: *Microsoft Technology Associate Infrastructure*

Associated Job Title: *Help Desk Apprentice*

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

BUILDING, CONNECTING,
& ENRICHING

talent

For more information call **734-677-5137**
or **734-677-5031**

www.wccnet.edu/community/workforce-development

or email **it-talent@wccnet.edu**

Linux / Unix Systems Certificate

Linux is a popular web server, file server and database hosting platform and is common in everything from mobile computing devices to large scale data center environments and supercomputers. This Certificate helps prepare students to complete the Linux+ and LPIC-1 industry certifications.

Program In JAVA
Advanced
Certificate

LINUX / UNIX
Systems
Certificate

Microsoft
Technology
Associate -
Infrastructure

Career Readiness
Certificate:
Information
Technology

Courses include:

Linux/UNIX I: Fundamentals

CIS 121 (4 credits)

This course introduces UNIX and Linux tools to the experienced computer user and to those with only a basic knowledge of computers. The course covers the UNIX/Linux files system, communication with other users, editors, file manipulation and processing, basics of pipes and redirection, simple shell programming, introduction to the X Windows system, and a basic introduction to Linux.

Linux/UNIX II: Basic System

Administration, Networking and Security

CIS 206 (4 credits)

This is the second of four courses on the Linux operating system. Linux System administration tasks are discussed and practiced. This course is designed to help prepare students for Linux Certification Exams. Students should be familiar with common Linux distributions and should be comfortable with basic installation and configuration to succeed in this course.

Linux/UNIX III: Intermediate System

Administration, Networking and Security

CIS 208 (4 credits)

This is the third of four courses on Linux operating system. Linux networking theory is discussed and practical application of the theory is shown through lab exercises. Students should be familiar with common Linux distributions and comfortable with system administration activities to succeed in this course. This course is designed to prepare students for Linux Certification exams.

Linux/UNIX Programming and Scripting

CIS 221 (4 credits)

Students learn to use UNIX more efficiently with advanced forms of the commands and utilities building on the fundamentals of Linux/UNIX, as well as, new commands and constructs. Advanced forms of topics include sed, grep, awk, perl, and how to effectively use regular expressions, as well as, constructs and special commands used in writing shell scripts. New topics covered include functions, traps, arithmetic on variables and input/output techniques.

Associated Industry Certification: *Linux+, LPIC-1*

Associated Job Title: *System Administrator*

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

For more information call **734-677-5137**

or **734-677-5031**

www.wccnet.edu/community/workforce-development

or email **it-talent@wccnet.edu**

BUILDING, CONNECTING,
& ENRICHING

talent

Program In JAVA Advanced Certificate



**Program In JAVA
Advanced
Certificate**

**LINUX / UNIX
Systems
Certificate**

**Microsoft
Technology
Associate -
Infrastructure**

**Career Readiness
Certificate:
Information
Technology**

This program is intended for students who need to acquire skills in the Java programming language. The program also gives students skills that can be applied to the related jobs of programmer/analyst.

Courses include:

An Introduction to Programming with JAVA CPS 161 (4 credits)

This course is an introduction to the Java programming language. Looping, conditional logic and string manipulation are some of the basic programming concepts covered. Object-oriented concepts are covered, such as, constructors, polymorphism, abstract classes, interfaces and exceptions. Input/Output (I/O) and graphical user interface (GUI) topics are minimally covered.

Advanced JAVA Concepts CPS 261 (4 credits)

This course is a continuation of the Java concepts covered in CPS 161. Topics covered include input/output, graphical user interfaces associated with AWT/Swing, data structures, networking and multi-tasking (Threads.) Students entering this class should have a good understanding of object-oriented programming concepts such as inheritance and polymorphism.

Android Programming Using JAVA CPS 251 (4 credits)

In this course, students create programs written in Java to run on the Android smart phone operating system. Google APIs for telephony, GPS, and "Google maps" will be explored. Students taking this class should have a good knowledge of Java.

Java Server Programming CPS 278 (4 credits)

This course covers Java Servlets, Java Server Pages (JSP) and Java Database Connectivity (JDBC.) Students taking this class should have a good knowledge of Java fundamentals. Some knowledge of simple HTML and SQL is helpful but not mandatory.

Associated Industry Certification: *Java SE Programmer*

Associated Job Title: *Computer Programmer, System Software Developer*

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

BUILDING, CONNECTING,
& ENRICHING

talent

For more information call **734-677-5137**
or **734-677-5031**

www.wccnet.edu/community/workforce-development

or email **it-talent@wccnet.edu**