

## PROGRAM REQUIREMENTS

[www.cvtc.edu](http://www.cvtc.edu) - 1-800-547-2882

START DATE(S): August and January	EFFECTIVE: <b>August 2009</b>
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### INFORMATION TECHNOLOGY – PROGRAMMER/ANALYST

#### *Programmer Emphasis*

*Associate Degree*

Course Number	Course Title	Hrs./Week	Credits	Prerequisite(s)/Comments
<u>First Semester</u>				
152-101	<a href="#">Programming Fundamentals</a>	4	3	
152-102	<a href="#">Information Technology-Programmer Analyst Exploration</a>	2	1	
152-106	<a href="#">Operating Systems for IT</a>	3	2	
152-107	<a href="#">Web 1 - XHTML and CSS</a>	4	3	
152-117	<a href="#">User Interface Design</a>	3	2	
801-195	<a href="#">Written Communications</a>	3	3	
804-133	<a href="#">Math and Logic</a>	4	3	1 yr. h.s. algebra or 854-771
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>23</b>	<b>17 cr.</b>	
<u>Second Semester</u>				
152-103	<a href="#">.NET - VB</a>	4	3	Program student, 152-101
152-108	<a href="#">Web 2 - JavaScript and PHP</a>	4	3	152-101, 152-107
152-125	<a href="#">Information Architecture</a>	4	3	
152-132	<a href="#">Database - SQL with Oracle and MySQL</a>	4	3	
801-196	<a href="#">Oral/Interpersonal Communications</a>	3	3	
809-166	<a href="#">Introduction to Ethics: Theory and Application</a>	3	3	For other options see Tip Sheet
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>22</b>	<b>18 cr.</b>	
<u>Third Semester</u>				
152-105	<a href="#">.NET – ASP</a>	4	3	152-103
152-136	<a href="#">Database Design</a>	4	3	
152-142	<a href="#">Java Programming I</a>	4	3	152-101
152-164	<a href="#">Web 3 – PHP</a>	4	3	152-108, (152-132 or concurrent)
801-197	<a href="#">Technical Reporting</a>	3	3	801-195
809-199	<a href="#">Psychology of Human Relations</a>	3	3	
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>22</b>	<b>18 cr.</b>	
<u>Fourth Semester</u>				
152-109	<a href="#">XML/AJAX Enabled Web Applications</a>	4	3	Program student, 152-108, 152-136
152-129	<a href="#">Java Programming II</a>	4	3	Spring only, 152-142
152-112	<a href="#">Business Intelligence</a>	4	3	152-132
152-110	<a href="#">eBusiness Fundamentals</a> OR	3	2	
152-152	.NET - C# OR			Program student, 152-101
152-182	<a href="#">Programmer/Analyst Internship</a> (128 hrs.)			152-164
152-128	<a href="#">Perl Programming</a> OR	4	3	Spring only, 152-101
152-160	<a href="#">C++ Programming</a> OR			152-101
152-161	<a href="#">3D Modeling I</a>			
804-189	<a href="#">Introductory Statistics</a>	3	3	804-133
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>22</b>	<b>17 cr.</b>	

**TOTAL CREDITS REQUIRED = 70    2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

*A grade of “C-” or better is required in all prerequisite courses.*

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

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**INFORMATION TECHNOLOGY – PROGRAMMER/ANALYST: Program Outcomes**

*Simulation Emphasis*

*Associate Degree*

Course Number	Course Title	Hrs./Week	Credits	Prerequisite(s)/Comments
<b>First Semester</b>				
152-101	<a href="#">Programming Fundamentals</a>	4	3	_____
152-102	<a href="#">Information Technology-Programmer Analyst Exploration</a>	2	1	_____
152-106	<a href="#">Operating Systems</a>	3	2	_____
152-107	<a href="#">Web 1 - XHTML and CSS</a>	4	3	_____
152-117	<a href="#">User Interface Design</a>	3	2	_____
801-195	<a href="#">Written Communications</a>	3	3	_____
804-133	<a href="#">Math and Logic</a>	4	3	1 yr. h.s. algebra or 854-771
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>23</b>	<b>17 cr.</b>	
<b>Second Semester</b>				
152-108	<a href="#">Web 2- JavaScript and PHP</a>	4	3	152-101, 152-107
152-132	<a href="#">Database - SQL with Oracle and MySQL</a>	4	3	_____
152-160	<a href="#">C++ Programming</a>	4	3	152-101
152-161	<a href="#">3D Modeling 1</a>	4	3	_____
801-196	<a href="#">Oral/Interpersonal Communications</a>	3	3	_____
809-166	<a href="#">Introduction to Ethics: Theory and Application</a>	3	3	For other options see Tip Sheet
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>22</b>	<b>18 cr.</b>	
<b>Third Semester</b>				
152-103	<a href="#">.NET - VB</a>	4	3	Program student, 152-101
152-121	<a href="#">Web Development Tools</a>	4	3	152-107
152-142	<a href="#">Java Programming I</a>	4	3	152-101
152-164	<a href="#">Web 3 - PHP</a>	4	3	152-108, (152-132 or concurrent)
152-165	<a href="#">3D Modeling 2</a>	3	3	152-161
809-199	<a href="#">Psychology of Human Relations</a>	3	3	_____
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>23</b>	<b>18 cr.</b>	
<b>Fourth Semester</b>				
152-152	<a href="#">.NET - C# (T, L) OR</a>	3	2	Program student, 152-101
152-182	<a href="#">Programmer/Analyst Internship (128 hrs.)</a>			152-107
152-162	<a href="#">3D Simulation Programming</a>	4	3	152-101
152-167	<a href="#">Flash Development I</a>	4	3	152-121
801-197	<a href="#">Technical Reporting</a>	3	3	801-195 with a minimum grade of C-
804-189	<a href="#">Introductory Statistics</a>	3	3	804-133
<b>Choose one of the following:</b>				
152-166	<a href="#">3D Simulation Capstone</a>	4	3	152-161 (152-165, 152-162 or concurrent)
152-105	<a href="#">.NET - ASP</a>			152-103
152-129	<a href="#">Java Programming II</a>			Spring only, 152-142
<b>Total Semester Hrs./Wk. &amp; Total Credits</b>		<b>20</b>	<b>17 cr.</b>	

**TOTAL CREDITS REQUIRED = 70 2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION**

*A grade of "C-" or better is required in all prerequisite courses.*

If a student does not enroll in any courses at CVTC for two or more consecutive semesters, the student will be required to reapply with Admissions. Students must abide by any changes in admission requirements and degree requirements.

# Information Technology - Programmer/Analyst Tips

**Before beginning this program you must have experience using basic Windows, word processing, spreadsheet, database, and presentation software. If you are not comfortable using the above mentioned software, you should take 103-102 Microsoft Office Suite (2 credits, which can count for elective credit) before starting the program or during your first semester. You must also be able to type at least 20 words per minute.**

## Available Certificates

Consider completing one of our computer certificates if you are interested in taking classes but aren't prepared to enroll in a full program. Each certificate has courses which could also fulfill credit requirements for the Information Technology – Programmer/Analyst program.

For further information on the certificates listed below, please check our website,

<http://www.cvtc.edu/dbapps/Catalog/CertByAlpha.htm>

Simulation Application Programming 1 (TC-152-1), 12 cr.

Object Oriented Application Programming (TC-152-3), 23 cr.

Database Analysis and Development (TC-152-11), 12 cr.

JAVA (TC-152-3) 15 cr.

.NET-VB/ASP (TC-152-7), 14 cr.

Web Development 1 (TC-152-8), 12cr.

Web Development 2 (TC-152-9), 12 cr.

Web Multimedia (TC-152-10), 13 cr.

3D Game/Simulation Programming 1 (TC-152-5), 12 cr.

3D Game/Simulation Programming 2 (TC-152-13), 9 cr.

## Course Options

To allow for greatest flexibility, 809-166 Introduction to Ethics: Theory and Application could be substituted for **ONE** of the following:

809-172 Race Ethnic & Diversity

809-174 Social Problems

809-195 Economics

809-196 Introduction to Sociology

## Math Recommendation

It is recommended that you have strong algebra skills before taking 804-133 Math and Logic. This means you have received a B or better in high school Algebra I, and hopefully, taken a second course of algebra. A score of 50 or above on the COMPASS Pre-Algebra assessment is also an indicator of satisfactory math skills.

If students need to strengthen their math (algebra) skills, they should take 854-771 Basic Algebra, before entering the program or during the first semester. Students are encouraged to visit the Academic Services Center for a free evaluation and to set up a free remediation program that should be completed before taking Math and Logic.

It is also recommended that you take Math and Logic before or at the same time as 152-101 Programming Fundamentals with VB.Net.

## Summer Classes

We encourage Information Technology – Programmer/Analyst ((Programmer and Simulation Emphasis) students to enroll in one or two General Education courses during the summer sessions.

## Transfer Credit

Go to the Transfer Information System at [www.uwsa.edu/tis](http://www.uwsa.edu/tis), if you would like to see what courses transfer to a public postsecondary institution in Wisconsin.

- Click on Credit Transfer Wizard
- Click on Course Wizard

You must contact the college you wish to attend to find out exactly what they expect and when you should seek admission. The Transfer Information System does not include private colleges or out-of-state institutions.

## Distance Learning

Some courses are available online. Check our website [www.cvtc.edu](http://www.cvtc.edu) for distance learning opportunities.

## Using Your Home Computer

You may be able to use your home computer to do assignments if you own the correct version of the software. Check with the program counselor(s) or program instructors for more information.

Some courses/assignments and communication with your instructor may be completed from your home computer with Internet access.

## Financial Aid Consideration:

Some courses may not be eligible for financial aid. Courses must be part of a program to be eligible. A list of courses not eligible is located on [www.cvtc.edu](http://www.cvtc.edu).

## For More Information

Department Web Site: <http://www.cs.cvtc.edu/>

Attendance in class and lab is **ESSENTIAL** to your success