

Previous Report

2015-16

KCC 10 11.02020200 Computer Programming, Specific Applications.

CAMPUS N/A

Type of Award: AAS Computer Software Development

ITSO 03 02 11 03

Credits	CONTACT HOURS				Alt	Gen Ed	Foot Note	ContHr / CredHr
	Lecture	Lab	Clinic	Work				

Term 1

1	CSC	110	*	Introduction to Computers	3.00	32.00	32.00	0.00	0.00				3.00
2	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00				3.00
3	CIS	207	*	Fundamentals of Web Programming	3.00	32.00	32.00	0.00	0.00				3.00
4	ENG	105		Composition I	3.00	48.00	0.00	0.00	0.00		C		3.00
5	MAT	708		Algebra Mastery 2	3.00	48.00	0.00	0.00	0.00	M	S		3.00
6	MAT	102		Intermediate Algebra	4.00	64.00	0.00	0.00	0.00	A	S		4.00
7	MAT	120		College Algebra	3.00	48.00	0.00	0.00	0.00	A	S		3.00
8	MAT	136		Trigonometry and Analytic Geometry	5.00	80.00	0.00	0.00	0.00	A	S		5.00
9	MAT	138		College Algebra with Limits	4.00	64.00	0.00	0.00	0.00	A	S		4.00
10	MAT	140		Finite Math	3.00	48.00	0.00	0.00	0.00	A	S		3.00
11	MAT	150		Discrete Math	3.00	48.00	0.00	0.00	0.00	A	S		3.00
12	MAT	155		Statistical Ideas	3.00	48.00	0.00	0.00	0.00	A	S		3.00
13	MAT	157		Statistics	4.00	64.00	0.00	0.00	0.00	A	S		4.00
14	MAT	162		Business Statistics	4.00	64.00	0.00	0.00	0.00	A	S		4.00
15	MAT	165		Business Calculus	3.00	48.00	0.00	0.00	0.00	A	S		3.00
16	MAT	210		Calculus I	4.00	64.00	0.00	0.00	0.00	A	S		4.00
Term Total					15.00								

Term 2

17	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00				3.00
18	CIS	171	*	Java Programming I	3.00	32.00	32.00	0.00	0.00	M			3.00
19	CSC	142	*	Computer Science	4.00	64.00	0.00	0.00	0.00	A			4.00
20	CIS	622	*	.NET Development I	3.00	32.00	32.00	0.00	0.00				3.00
21	MGT	145		Human Relations in Management	3.00	48.00	0.00	0.00	0.00	M	H		3.00
22	PSY	111		Introduction to Psychology	3.00	48.00	0.00	0.00	0.00	A	H		3.00
23	ECN	120		Principles of Macroeconomics	3.00	48.00	0.00	0.00	0.00	A	H		3.00
24	ECN	130		Principles of Microeconomics	3.00	48.00	0.00	0.00	0.00	A	H		3.00
25	GEO	115		Human Geography	3.00	48.00	0.00	0.00	0.00	A	H		3.00
26	GEO	121		World Regional Geography	3.00	48.00	0.00	0.00	0.00	A	H		3.00
27	GEO	162		Geography of Iowa	3.00	48.00	0.00	0.00	0.00	A	H		3.00
28	POL	111		American National Government	3.00	48.00	0.00	0.00	0.00	A	H		3.00
29	POL	121		International Relations	3.00	48.00	0.00	0.00	0.00	A	H		3.00
30	POL	125		Comparative Government and Politics	3.00	48.00	0.00	0.00	0.00	A	H		3.00
31	POL	150		Introduction to U. S. Foreign Policy	3.00	48.00	0.00	0.00	0.00	A	H		3.00
32	PSY	121		Developmental Psychology	3.00	48.00	0.00	0.00	0.00	A	H		3.00
33	SOC	110		Introduction to Sociology	3.00	48.00	0.00	0.00	0.00	A	H		3.00
34	SOC	115		Social Problems	3.00	48.00	0.00	0.00	0.00	A	H		3.00
35	SOC	120		Marriage and Family	3.00	48.00	0.00	0.00	0.00	A	H		3.00
36	SOC	200		Minority Group Relations	3.00	48.00	0.00	0.00	0.00	A	H		3.00
37	SOC	265		Introduction to Lesbian, Gay, Bisexual & Transgender Studies	3.00	48.00	0.00	0.00	0.00	A	H		3.00
38	SOC	284		Sociology of the Environment	3.00	48.00	0.00	0.00	0.00	A	H		3.00
39	ACC	XXX	*	Elective	3.00	48.00	0.00	0.00	0.00	M		1	3.00
40	BIO	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
41	BUS	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
42	BCA	290	*	Web Design Principles	3.00	32.00	32.00	0.00	0.00	A		1	3.00
43	CIS	135		Microcomputer Operating Systems	3.00	48.00	0.00	0.00	0.00	A		1	3.00
44	CIS	334		PHP/Apache/MySQL	3.00	32.00	32.00	0.00	0.00	A		1	3.00
45	CHM	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
46	CSC	142		Computer Science	4.00	64.00	0.00	0.00	0.00	A		1	4.00
47	CSC	160		Software Design and Development	4.00	64.00	0.00	0.00	0.00	A		1	4.00
48	CSC	175		Computer Organization and Assembly Language	4.00	64.00	0.00	0.00	0.00	A		1	4.00

Programming											
49	EGR	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
50	ENV	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
51	FIN	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
52	GIS	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
53	MAT	136	Trigonometry and Analytic Geometry	5.00	80.00	0.00	0.00	0.00	A	S	1 5.00
54	MAT	140	Finite Math	3.00	48.00	0.00	0.00	0.00	A	S	1 3.00
55	MAT	150	Discrete Math	3.00	48.00	0.00	0.00	0.00	A	S	1 3.00
56	MAT	157	Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1 4.00
57	MAT	162	Business Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1 4.00
58	MAT	165	Business Calculus	3.00	48.00	0.00	0.00	0.00	A	S	1 3.00
59	MDT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
60	MGT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
61	MKT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
62	NET	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
63	MGT	121	Project Management Basics	3.00	48.00	0.00	0.00	0.00	A		1 3.00
64	PHY	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
65	BUS	932	Internship	1.00	0.00	0.00	0.00	64.00	A		1.00
Term Total				15.00							

Term 3

66	SPC	101	Fundamentals of Oral Communication	3.00	48.00	0.00	0.00	0.00	M	C	3.00
67	COM	744	Oral Communication in the Workplace	3.00	48.00	0.00	0.00	0.00	A	C	3.00
68	ENG	106	Composition II	3.00	48.00	0.00	0.00	0.00	A	C	3.00
69	SPC	112	Public Speaking	3.00	48.00	0.00	0.00	0.00	A	C	3.00
70	ENG	108	Composition II: Technical Writing	3.00	48.00	0.00	0.00	0.00	A	C	3.00
Term Total				3.00							

Term 4

71	CIS	175	* Java Programming II	3.00	32.00	32.00	0.00	0.00			3.00
72	CIS	624	.NET Development II	3.00	32.00	32.00	0.00	0.00			3.00
73	CIS	504	* Structured Systems Analysis	3.00	32.00	32.00	0.00	0.00			3.00
74	CIS	280	* Client Side Scripting	3.00	32.00	32.00	0.00	0.00			3.00
75	BUS	290	* Employment Search and Workplace Success	1.00	16.00	0.00	0.00	0.00			1.00
76	BUS	XXX	* Elective	3.00	48.00	0.00	0.00	0.00	M	1	3.00
77	ACC	XXX	* Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
78	BIO	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
79	BCA	290	* Web Design Principles	3.00	32.00	32.00	0.00	0.00	A	1	3.00
80	CIS	135	Microcomputer Operating Systems	3.00	48.00	0.00	0.00	0.00	A	1	3.00
81	CIS	334	PHP/Apache/MySQL	3.00	32.00	32.00	0.00	0.00	A	1	3.00
82	CHM	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
83	CSC	142	Computer Science	4.00	64.00	0.00	0.00	0.00	A	1	4.00
84	CSC	160	Software Design and Development	4.00	64.00	0.00	0.00	0.00	A	1	4.00
85	CSC	175	Computer Organization and Assembly Language Programming	4.00	64.00	0.00	0.00	0.00	A	1	4.00
86	MDT	240	* Objective-C Development	3.00	32.00	32.00	0.00	0.00	A	1	3.00
87	EGR	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
88	ENV	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
89	FIN	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
90	GIS	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A	1	3.00
91	MAT	136	Trigonometry and Analytic Geometry	5.00	80.00	0.00	0.00	0.00	A	S	1 5.00
92	MAT	140	Finite Math	3.00	48.00	0.00	0.00	0.00	A	S	1 3.00
93	MAT	150	Discrete Math	3.00	48.00	0.00	0.00	0.00	A	S	1 3.00
94	MAT	157	Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1 4.00
95	MAT	162	Business Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1 4.00
96	MAT	165	Business Calculus	3.00	48.00	0.00	0.00	0.00	A	S	1 3.00
97	MGT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
98	MDT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
99	MGT	121	* Project Management Basics	3.00	48.00	0.00	0.00	0.00	A		1 3.00
100	MKT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
101	NET	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
102	PHY	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1 3.00
103	BUS	932	Internship	1.00	0.00	0.00	0.00	64.00	A		1.00
Term Total				16.00							

Term 5

104	CIS	181	*	Java III	3.00	32.00	32.00	0.00	0.00							3.00
105	CIS	626	*	.NET Development III	3.00	32.00	32.00	0.00	0.00							3.00
106	CSC	153	*	Data Structures	4.00	64.00	0.00	0.00	0.00							4.00
107	CIS	802	*	Software Development Capstone	3.00	32.00	32.00	0.00	0.00							3.00
108	ART	XXX		Elective	3.00	48.00	0.00	0.00	0.00	M	H	2				3.00
109	CLS	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
110	DRA	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
111	HIS	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
112	HUM	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
113	LIT	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
114	MUA	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
115	MUS	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
116	PHI	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00
117	REL	XXX		Elective	3.00	48.00	0.00	0.00	0.00	A	H	2				3.00

Term Total **16.00**
Program Total **65.00**

CAMPUS N/A

Type of Award:

JAVA PROGRAMMING

CERT1

ITSO 03 02 11 03

Term 1													
1	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	3.00							
Term 2													
2	CIS	171	*	Java Programming I	3.00	32.00	32.00	0.00	0.00	M			3.00
3	CSC	142	*	Computer Science	4.00	64.00	0.00	0.00	0.00	A			4.00
4	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	6.00							
Term 3													
5	CIS	175	*	Java Programming II	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	3.00							
Term 4													
6	CIS	181	*	Java III	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	3.00							
					Program Total	15.00							

CAMPUS N/A

Type of Award:

.NET PROGRAMMING

CERT2

ITSO 03 02 11 03

Term 1											
1	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00		3.00
Term Total					3.00						
Term 2											
2	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00		3.00
3	CIS	622	*	.NET Development I	3.00	32.00	32.00	0.00	0.00		3.00
Term Total					6.00						
Term 3											
4	CIS	624	*	.NET Development II	3.00	32.00	32.00	0.00	0.00		3.00
Term Total					3.00						
Term 4											
5	CIS	626	*	.NET Development III	3.00	32.00	32.00	0.00	0.00		3.00
Term Total					3.00						
Program Total					15.00						

CAMPUS N/A

Type of Award:

Database Technologies

CERT3

ITSO 03 02 11 03

Credits	Lecture	Lab	Clinic	Work	Alt	Gen Ed	Foot Note	ContHr/ CredHr
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Term 1												
1	CSC	110	*	Introduction to Computers	3.00	32.00	32.00	0.00	0.00		3.00	
2	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00	M	3.00	
3	CIS	128	*	Programming Concepts	3.00	32.00	32.00	0.00	0.00	A	3.00	
4	CIS	207	*	Fundamentals of Web Programming	3.00	32.00	32.00	0.00	0.00		3.00	
Term Total						9.00						

Term 2											
5	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00		3.00
6	BCA	167	*	Comprehensive Databases	3.00	32.00	32.00	0.00	0.00		3.00
Term Total					6.00						

Term 3											
7	CIS	334	*	PHP/Apache/MySQL	3.00	32.00	32.00	0.00	0.00	M	3.00
8	CIS	348	*	Procedural Language & SQL	3.00	32.00	32.00	0.00	0.00	A	3.00
9	CIS	353	*	Database Models and Design Strategies	3.00	32.00	32.00	0.00	0.00		3.00

Term Total 6.00
Program Total 21.00

CAMPUS N/A

Type of Award:

Mobile App Development

CERT4

ITSO 03 02 11 03

Type of Award: CERT4 ITSO 03 02 11 03			Mobile App Development			CONTACT HOURS				Alt	Gen Ed	Foot Note	ContHr / CredHr
					Credits	Lecture	Lab	Clinic	Work				
Term 1													
1	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	3.00							
Term 2													
2	CIS	171	*	Java Programming I	3.00	32.00	32.00	0.00	0.00	M			3.00
3	CSC	142	*	Computer Science	4.00	64.00	0.00	0.00	0.00	A			4.00
4	MDT	240	*	Objective-C Development	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	6.00							
Term 3													
5	MDT	340	*	IOS App Development	3.00	32.00	32.00	0.00	0.00				3.00
6	MDT	350	*	Android App Development	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	6.00							
					Program Total	15.00							

Footnotes

1: Select any 3-credit course with the given 3-letter prefix from our list of Approved Elective Courses in these categories. Be advised that taking a course plus its prerequisite will increase your program credit total.

2: Select any 3-credit course with the given 3-letter prefix from our list of General Education Courses in the History/Cultures or Humanities categories. There are over 70 courses that fulfill this General Education requirement and some have prerequisite courses. Be advised that taking a course plus its prerequisite will increase your program credit total.

SUMMARY					
AAS					
Contact Hours					
Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	15.00	192.00	96.00	0.00	0.00
Term 2	15.00	192.00	96.00	0.00	0.00
Term 3	3.00	48.00	0.00	0.00	0.00
Term 4	16.00	192.00	128.00	0.00	0.00
Term 5	16.00	208.00	96.00	0.00	0.00
CERT1					
Contact Hours					
Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	3.00	32.00	32.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00
Term 3	3.00	32.00	32.00	0.00	0.00
Term 4	3.00	32.00	32.00	0.00	0.00
CERT2					
Contact Hours					
Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	3.00	32.00	32.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00
Term 3	3.00	32.00	32.00	0.00	0.00
Term 4	3.00	32.00	32.00	0.00	0.00

CERT3						
Term	Cr H	Contact Hours		Clinical	Work Exp	
		Lecture	Lab			
Term 1	9.00	96.00	96.00	0.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00	0.00
Term 3	6.00	64.00	64.00	0.00	0.00	0.00
CERT4						
Term	Cr H	Contact Hours		Clinical	Work Exp	
		Lecture	Lab			
Term 1	3.00	32.00	32.00	0.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00	0.00
Term 3	6.00	64.00	64.00	0.00	0.00	0.00

COMPLIANCE						
Award Type	Cr. H	Weeks	Avg Per Term	Gen Ed Cr. H	Gen Ed Categ.	% Tech Core
AAS	65.00	76.00	13.00	20.00	3.00	72.31%
CERT1	15.00	3.75	3.75	0.00	0.00	100.00%
CERT2	15.00	3.75	3.75	0.00	0.00	100.00%
CERT3	21.00	48.00	7.00	0.00	0.00	100.00%
CERT4	15.00	48.00	5.00	0.00	0.00	100.00%

Updating courses in the Java track making the courses three credits, replacing old database courses with new Database Technologies & SQL, and new Mobile App Development courses. The program is adding an additional approved elective and two new certificates in Mobile Apps Development and Database Technologies.

Current Report

2016-17

KCC 10 11.0202000 Computer Programming, Specific Applications.

CAMPUS N/A

Type of Award: AAS Computer Software Development

ITSO 03 02 11 03

Credits	CONTACT HOURS				Alt	Gen Ed	Foot Note	ContHr / CredHr
	Lecture	Lab	Clinic	Work				

Term 1

1	CSC	110	* Introduction to Computers	3.00	32.00	32.00	0.00	0.00				3.00
2	CIS	121	* Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00				3.00
3	CIS	207	* Fundamentals of Web Programming	3.00	32.00	32.00	0.00	0.00				3.00
4	ENG	105	Composition I	3.00	48.00	0.00	0.00	0.00	C			3.00
5	GEM	XXX	General Education: Mathematics	3.00	48.00	0.00	0.00	0.00	S			3.00

Term Total **15.00**

Term 2

6	CIS	335	* Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00				3.00
7	CIS	171	* Java Programming I	3.00	32.00	32.00	0.00	0.00	M			3.00
8	CSC	142	* Computer Science	4.00	64.00	0.00	0.00	0.00	A			4.00
9	CIS	622	* .NET Development I	3.00	32.00	32.00	0.00	0.00				3.00
10	MGT	145	Human Relations in Management	3.00	48.00	0.00	0.00	0.00	M	H		3.00
11	PSY	111	Introduction to Psychology	3.00	48.00	0.00	0.00	0.00	A	H		3.00
12	ECN	120	Principles of Macroeconomics	3.00	48.00	0.00	0.00	0.00	A	H		3.00
13	ECN	130	Principles of Microeconomics	3.00	48.00	0.00	0.00	0.00	A	H		3.00
14	GEO	115	Human Geography	3.00	48.00	0.00	0.00	0.00	A	H		3.00
15	GEO	121	World Regional Geography	3.00	48.00	0.00	0.00	0.00	A	H		3.00
16	POL	111	American National Government	3.00	48.00	0.00	0.00	0.00	A	H		3.00
17	POL	121	International Relations	3.00	48.00	0.00	0.00	0.00	A	H		3.00
18	POL	125	Comparative Government and Politics	3.00	48.00	0.00	0.00	0.00	A	H		3.00
19	POL	150	Introduction to U. S. Foreign Policy	3.00	48.00	0.00	0.00	0.00	A	H		3.00
20	PSY	121	Developmental Psychology	3.00	48.00	0.00	0.00	0.00	A	H		3.00
21	SOC	110	Introduction to Sociology	3.00	48.00	0.00	0.00	0.00	A	H		3.00
22	SOC	115	Social Problems	3.00	48.00	0.00	0.00	0.00	A	H		3.00
23	SOC	120	Marriage and Family	3.00	48.00	0.00	0.00	0.00	A	H		3.00
24	SOC	200	Minority Group Relations	3.00	48.00	0.00	0.00	0.00	A	H		3.00
25	SOC	265	Introduction to Lesbian, Gay, Bisexual & Transgender Studies	3.00	48.00	0.00	0.00	0.00	A	H		3.00
26	SOC	284	Sociology of the Environment	3.00	48.00	0.00	0.00	0.00	A	H		3.00
27	ACC	XXX	* Elective	3.00	48.00	0.00	0.00	0.00	M		1	3.00
28	BIO	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
29	BUS	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
30	BCA	290	* Web Design Principles	3.00	32.00	32.00	0.00	0.00	A		1	3.00
31	CIS	135	Microcomputer Operating Systems	3.00	48.00	0.00	0.00	0.00	A		1	3.00
32	CIS	334	PHP/Apache/MySQL	3.00	32.00	32.00	0.00	0.00	A		1	3.00
33	CHM	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
34	CSC	142	Computer Science	4.00	64.00	0.00	0.00	0.00	A		1	4.00
35	CSC	160	Software Design and Development	4.00	64.00	0.00	0.00	0.00	A		1	4.00
36	CSC	175	Computer Organization and Assembly Language Programming	4.00	64.00	0.00	0.00	0.00	A		1	4.00
37	CIS	450	PLTW - Computer Science Principles	3.00	16.00	64.00	0.00	0.00	A		1	3.00
38	CIS	342	PHP/Apache/MySQL II	3.00	32.00	32.00	0.00	0.00	A		1	3.00
39	CIS	249	Web Languages	3.00	32.00	32.00	0.00	0.00	A		1	3.00
40	CIS	353	Database Models and Design Strategies	3.00	32.00	32.00	0.00	0.00	A		1	3.00
41	CIS	370	Fundamentals of 2D Visualizations and Games	3.00	32.00	32.00	0.00	0.00	A		1	3.00
42	CIS	371	Developing 3D Simulations and Games	3.00	32.00	32.00	0.00	0.00	A		1	3.00
43	EGR	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
44	ENV	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
45	FIN	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
46	GIS	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
47	MAT	136	Trigonometry and Analytic Geometry	5.00	80.00	0.00	0.00	0.00	A	S	1	5.00

48	MAT	140	Finite Math	3.00	48.00	0.00	0.00	0.00	A	S	1	3.00
49	MAT	150	Discrete Math	3.00	48.00	0.00	0.00	0.00	A	S	1	3.00
50	MAT	157	Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1	4.00
51	MAT	162	Business Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1	4.00
52	MAT	165	Business Calculus	3.00	48.00	0.00	0.00	0.00	A	S	1	3.00
53	MDT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
54	MGT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
55	MKT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
56	NET	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
57	MGT	121	Project Management Basics	3.00	48.00	0.00	0.00	0.00	A		1	3.00
58	PHY	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
59	BUS	932	Internship	1.00	0.00	0.00	0.00	64.00	A			1.00

Term Total **15.00**

Term 3

60	SPC	101	Fundamentals of Oral Communication	3.00	48.00	0.00	0.00	0.00	M	C		3.00
61	COM	744	Oral Communication in the Workplace	3.00	48.00	0.00	0.00	0.00	A	C		3.00
62	ENG	106	Composition II	3.00	48.00	0.00	0.00	0.00	A	C		3.00
63	SPC	112	Public Speaking	3.00	48.00	0.00	0.00	0.00	A	C		3.00
64	ENG	108	Composition II: Technical Writing	3.00	48.00	0.00	0.00	0.00	A	C		3.00

Term Total **3.00**

Term 4

65	CIS	175	* Java Programming II	3.00	32.00	32.00	0.00	0.00				3.00
66	CIS	624	.NET Development II	3.00	32.00	32.00	0.00	0.00				3.00
67	CIS	504	* Structured Systems Analysis	3.00	32.00	32.00	0.00	0.00				3.00
68	CIS	280	* Client Side Scripting	3.00	32.00	32.00	0.00	0.00				3.00
69	BUS	290	* Employment Search and Workplace Success	1.00	16.00	0.00	0.00	0.00				1.00
70	BUS	XXX	* Elective	3.00	48.00	0.00	0.00	0.00	M		1	3.00
71	ACC	XXX	* Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
72	BIO	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
73	BCA	290	* Web Design Principles	3.00	32.00	32.00	0.00	0.00	A		1	3.00
74	CIS	135	Microcomputer Operating Systems	3.00	48.00	0.00	0.00	0.00	A		1	3.00
75	CIS	334	PHP/Apache/MySQL	3.00	32.00	32.00	0.00	0.00	A		1	3.00
76	CHM	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
77	CSC	142	Computer Science	4.00	64.00	0.00	0.00	0.00	A		1	4.00
78	CSC	160	Software Design and Development	4.00	64.00	0.00	0.00	0.00	A		1	4.00
79	CSC	175	Computer Organization and Assembly Language Programming	4.00	64.00	0.00	0.00	0.00	A		1	4.00
80	CIS	450	* PLTW - Computer Science Principles	3.00	16.00	64.00	0.00	0.00	A		1	3.00
81	CIS	342	PHP/Apache/MySQL II	3.00	32.00	32.00	0.00	0.00	A		1	3.00
82	CIS	249	Web Languages	3.00	32.00	32.00	0.00	0.00	A		1	3.00
83	CIS	353	Database Models and Design Strategies	3.00	32.00	32.00	0.00	0.00	A		1	3.00
84	CIS	370	Fundamentals of 2D Visualizations and Games	3.00	32.00	32.00	0.00	0.00	A		1	3.00
85	CIS	371	Developing 3D Simulations and Games	3.00	32.00	32.00	0.00	0.00	A		1	3.00
86	MDT	240	* Objective-C Development	3.00	32.00	32.00	0.00	0.00	A		1	3.00
87	EGR	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
88	ENV	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
89	FIN	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
90	GIS	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
91	MAT	136	Trigonometry and Analytic Geometry	5.00	80.00	0.00	0.00	0.00	A	S	1	5.00
92	MAT	140	Finite Math	3.00	48.00	0.00	0.00	0.00	A	S	1	3.00
93	MAT	150	Discrete Math	3.00	48.00	0.00	0.00	0.00	A	S	1	3.00
94	MAT	157	Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1	4.00
95	MAT	162	Business Statistics	4.00	64.00	0.00	0.00	0.00	A	S	1	4.00
96	MAT	165	Business Calculus	3.00	48.00	0.00	0.00	0.00	A	S	1	3.00
97	MGT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
98	MDT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
99	MGT	121	* Project Management Basics	3.00	48.00	0.00	0.00	0.00	A		1	3.00
100	MKT	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
101	NET	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
102	PHY	XXX	Elective	3.00	48.00	0.00	0.00	0.00	A		1	3.00
103	BUS	932	Internship	1.00	0.00	0.00	0.00	64.00	A			1.00

Term Total **16.00**

Term 5

104	CIS	181	*	Java III	3.00	32.00	32.00	0.00	0.00		3.00
105	CIS	626	*	.NET Development III	3.00	32.00	32.00	0.00	0.00		3.00
106	CSC	153	*	Data Structures	4.00	64.00	0.00	0.00	0.00		4.00
107	CIS	802	*	Software Development Capstone	3.00	32.00	32.00	0.00	0.00		3.00
108	GEH	XXX		General Education: Humanities	3.00	48.00	0.00	0.00	0.00	H	3.00
Term Total					16.00						
Program Total					65.00						

CAMPUS N/A

Type of Award:

CERT1

ITSO 03 02 11 03

JAVA PROGRAMMING

CONTACT HOURS

Credits	Lecture	Lab	Clinic	Work	Alt	Gen Ed	Foot Note	ContHr/ CredHr
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Term 1

1	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00	3.00
				Term Total	3.00					

Term 2

2	CIS	171	*	Java Programming I	3.00	32.00	32.00	0.00	0.00	M	3.00
3	CSC	142	*	Computer Science	4.00	64.00	0.00	0.00	0.00	A	4.00
4	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00		3.00

Term Total **6.00**

Term 3

5	CIS	175	*	Java Programming II	3.00	32.00	32.00	0.00	0.00	3.00
Term Total					3.00					

Term Total **3.00**

Term 4

6	CIS	181	*	Java III	3.00	32.00	32.00	0.00	0.00	3.00
				Term Total	3.00					

Term Total	3.00
Program Total	15.00

CAMPUS N/A

Type of Award:

CERT2

ITSO 03 02 11 03

.NET PROGRAMMING

CONTACT HOURS

Credits	Lecture	Lab	Clinic	Work	Alt Ed	Gen Note	Foot Note	ContHr/ CredHr
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Term 1

1	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00	3.00
Term Total					3.00					

Term 2

2	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00	3.00
3	CIS	622	*	.NET Development I	3.00	32.00	32.00	0.00	0.00	3.00
Term Total						6.00				

Term 3

4	CIS	624	*	.NET Development II	3.00	32.00	32.00	0.00	0.00	3.00
Term Total					3.00					

Term 4

5	CIS	626	*	.NET Development III	3.00	32.00	32.00	0.00	0.00		3.00
				Term Total	3.00						
				Program Total	15.00						

Program Total	15.00
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CAMPUS N/A

Type of Award:

CERT3

ITSO 03 02 11 03

Database Technologies

CONTACT HOURS

Credits	Lecture	Lab	Clinic	Work	Alt Ed	Gen Note	Foot Note	ContHr/ CredHr
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Term 1

1	CSC	110	*	Introduction to Computers	3.00	32.00	32.00	0.00	0.00		3.00
2	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00	M	3.00
3	CIS	128	*	Programming Concepts	3.00	32.00	32.00	0.00	0.00	A	3.00
4	CIS	207	*	Fundamentals of Web Programming	3.00	32.00	32.00	0.00	0.00		3.00

Term Total **9.00**

Term 2

5	CIS	335	*	Relational Database Technologies & SQL	3.00	32.00	32.00	0.00	0.00	3.00
6	BCA	167	*	Comprehensive Databases	3.00	32.00	32.00	0.00	0.00	3.00

Term Total **6.00**

Term 3											
7	CIS	353	*	Database Models and Design Strategies	3.00	32.00	32.00	0.00	0.00		3.00
8	CIS	334	*	PHP/Apache/MySQL	3.00	32.00	32.00	0.00	0.00	M	3.00
9	CIS	624	*	.NET Development II	3.00	32.00	32.00	0.00	0.00	A	3.00
10	CIS	175	*	Java Programming II	3.00	32.00	32.00	0.00	0.00	A	3.00
Term Total						6.00					
Program Total						21.00					

CAMPUS N/A

Type of Award:

Mobile App Development

CERT4

ITSO 03 02 11 03

CONTACT HOURS

ITSO 03 02 11 03					Credits	Lecture Lab Clinic Work				Alt	Gen Ed	Foot Note	ContHr/ CredHr
Term 1													
1	CIS	121	*	Introduction to Programming Logic	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	3.00							
Term 2													
2	CIS	171	*	Java Programming I	3.00	32.00	32.00	0.00	0.00	M			3.00
3	CSC	142	*	Computer Science	4.00	64.00	0.00	0.00	0.00	A			4.00
4	MDT	240	*	Objective-C Development	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	6.00							
Term 3													
5	MDT	340	*	IOS App Development	3.00	32.00	32.00	0.00	0.00				3.00
6	MDT	350	*	Android App Development	3.00	32.00	32.00	0.00	0.00				3.00
					Term Total	6.00							
					Program Total	15.00							

Footnotes

1: Select any 3-credit course with the given 3-letter prefix from our list of Approved Elective Courses in these categories. Be advised that taking a course plus its prerequisite will increase your program credit total.

SUMMARY

AAS

Contact Hours

Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	15.00	192.00	96.00	0.00	0.00
Term 2	15.00	192.00	96.00	0.00	0.00
Term 3	3.00	48.00	0.00	0.00	0.00
Term 4	16.00	192.00	128.00	0.00	0.00
Term 5	16.00	208.00	96.00	0.00	0.00

CERT1

Contact Hours

Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	3.00	32.00	32.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00
Term 3	3.00	32.00	32.00	0.00	0.00
Term 4	3.00	32.00	32.00	0.00	0.00

CERT2

Contact Hours

Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	3.00	32.00	32.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00
Term 3	3.00	32.00	32.00	0.00	0.00
Term 4	3.00	32.00	32.00	0.00	0.00

CERT3

Contact Hours

Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	9.00	96.00	96.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00
Term 3	6.00	64.00	64.00	0.00	0.00

CERT4

Contact Hours

Term	Cr H	Lecture	Lab	Clinical	Work Exp
Term 1	3.00	32.00	32.00	0.00	0.00
Term 2	6.00	64.00	64.00	0.00	0.00

Term 3	6.00	64.00	64.00	0.00	0.00	
COMPLIANCE						
Award Type	Cr. H	Weeks	Avg Per Term	Gen Ed Cr. H	Gen Ed Categ.	% Tech Core
AAS	65.00	76.00	13.00	20.00	3.00	72.31%
CERT1	15.00	3.75	0.00	0.00	0.00	100.00%
CERT2	15.00	3.75	0.00	0.00	0.00	100.00%
CERT3	21.00	7.00	0.00	0.00	0.00	100.00%
CERT4	15.00	5.00	0.00	0.00	0.00	100.00%

Updating the math requirement to a transfer level math course to better prepare graduates from the program for potential to transfer and to be academically prepared to take Computer Science transfer courses through the Math/Science Department. The advisory committee also agreed to this change. Update to the Database Certificate removing CIS-348 as the courses in the Java track have been updated to incorporate this curriculum. The program is adding an additional approved elective in video game programming and a new programming language, Swift.

This workforce solution is funded by the IHUM Consortium which is 100% financed through a \$15,000,000 grant from the U.S. Department of Labor's Employment & 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. This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

