

## Course Competencies Template - Form 112

GENERAL INFORMATION											
Name: Kaiyang Liang	Phone #: 72993										
Course Prefix/Number: CTS2451	Course Title: Business Intelligence :Integration Services & Reporting Services										
Number of Credits: 4											
Degree Type	<input type="checkbox"/> B.A. <input type="checkbox"/> B.S. <input type="checkbox"/> B.A.S <input type="checkbox"/> A.A. <input checked="" type="checkbox"/> A.S. <input type="checkbox"/> A.A.S. <input type="checkbox"/> C.C.C. <input type="checkbox"/> A.T.C. <input type="checkbox"/> V.C.C										
Date Submitted/Revised: 09-21-2010	Effective Year/Term: 2010-2										
<input checked="" type="checkbox"/> New Course Competency <input type="checkbox"/> Revised Course Competency											
Course to be designated as a General Education course (part of the 36 hours of A.A. Gen. Ed. coursework): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No											
The above course links to the following Learning Outcomes: <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Communication</td> <td><input type="checkbox"/> Social Responsibility</td> </tr> <tr> <td><input checked="" type="checkbox"/> Numbers / Data</td> <td><input type="checkbox"/> Ethical Issues</td> </tr> <tr> <td><input checked="" type="checkbox"/> Critical thinking</td> <td><input checked="" type="checkbox"/> Computer / Technology Usage</td> </tr> <tr> <td><input type="checkbox"/> Information Literacy</td> <td><input type="checkbox"/> Aesthetic / Creative Activities</td> </tr> <tr> <td><input type="checkbox"/> Cultural / Global Perspective</td> <td><input type="checkbox"/> Environmental Responsibility</td> </tr> </table>		<input type="checkbox"/> Communication	<input type="checkbox"/> Social Responsibility	<input checked="" type="checkbox"/> Numbers / Data	<input type="checkbox"/> Ethical Issues	<input checked="" type="checkbox"/> Critical thinking	<input checked="" type="checkbox"/> Computer / Technology Usage	<input type="checkbox"/> Information Literacy	<input type="checkbox"/> Aesthetic / Creative Activities	<input type="checkbox"/> Cultural / Global Perspective	<input type="checkbox"/> Environmental Responsibility
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Course Description (limit to 50 words or less, <b>must correspond with course description on Form 102</b> ):  This course is designed to provide AS degree students majoring in computer information technology, database technology, or Internet services technology with skills necessary for advanced web-based applications. Students will learn how to use each type of structure supported by Reporting services, and how to enhance reports with interactivity and data visualization techniques. Students will also learn how to analyze business requirements to determine data access and data transfer requirements and how to apply database and problem solving skills to build data flow, design integration services, and reporting services. Prerequisite: CGS1546 or CGS2547. A.S. degree only. Laboratory fee. (3 hr lecture, 2 hr lab)											
Prerequisite(s): CGS1546 or CGS2547	Corequisite(s):										

**Course Competencies:** (for further instruction/guidelines go to:

<http://www.mdc.edu/asa/curriculum.asp>)

Competency 1: The student will demonstrate the ability to design report architecture by:

1. Creating linked reports, drill-down reports, and drill-through reports.
2. Using migration strategies to move application data files from an existing installation to a new installation.

Competency 2: The student will demonstrate how to design a data acquisition strategy by:

3. Using sub reports to provide easy way to reuse a complex report.
4. Using Code-Behind *strategies to extend an SSRS solution*.
  1. Implementing data query parameters, databound parameters; multi-value parameters.
  2. Creating appropriate SQL queries for an application (MDX queries).

**Revision Date:** 09-21-2010

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3. Managing data rights and security.
4. Extracting data from Analysis Services.
5. Balancing query-based processing vs. filter-based processing.
6. Managing data sets through the use of stored procedures.

Competency 3: The student will demonstrate the ability to define a report parameter strategy by:

1. Implementing report cache parameters.
2. Using expressions to calculate values for display in a text box.
3. Creating aggregation functions in expression to summarize data.

Competency 4: The student will demonstrate the ability to use a report layout by:

1. Implementing report components (crosstab report, TABLIX, design chart). .
2. Implementing report templates (Report Definition Language). .
3. Implementing Report Designer, generating report template RDL.
4. Adding third-party controls, Visual Studio Report and Development platform.

Competency 5: The student will demonstrate the ability to design reports by using Report Builder by:

1. Designing a Report Builder model.
2. Using Report Builder templates to apply to multiple reports.

Competency 6: The Student will demonstrate the ability to manage a report environment by:

1. Specifying users and roles, subscriptions strategy.
2. Designing data sources.
3. Designing a deployment plan for completed reports.

Competency 7: The student will demonstrate how to design control flow by:

1. Implementing data transformation.
2. Blocking transformations (lookup task) and extractions (design constraints).
3. Designing the load process.
4. Creating a package to load facts.
5. Creating an SSIS package to load dimension (SCD2).
6. Using capture CDC to locate changed data for SSIS.
7. Implementing SSIS scripting and adding business logic into the control flow.

Competency 8: The student will demonstrate how to plan the deployment of SSIS packages by:

1. Designing the structure of packages, troubleshooting and designing form problems with package.
2. Saving packages in file deployment, package store MSDB deployment, and package store file deployment.
3. Deploy packages from Visual Studio and BIDS SSIS deployment utility.
4. Creating a package that reports errors to a log.

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5. Enabling configurable values to be consumed by a package.

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