Course Discipline Code & No: __CPS 293__   Title: _C# .NET_

Effective Term _Fall 2009_

Division Code: __BCT__   Department Code: __CISD__   Org #: _13400_

Don't publish: ☐College Catalog   ☐Time Schedule   ☐Web Page

Reason for Submission. Check all that apply.
☐ New course approval
X Three-year syllabus review/ Assessment report
☐ Course change

☐ Reactivation of inactive course
☐ Inactivation (Submit this page only.)

Change information: Note all changes that are being made. Form applies only to changes noted.

☐ Consultation with all departments affected by this course is required.
☐ Course discipline code & number (was _____)*
  *Must submit inactivation form for previous course.
☐ Course title (was _____)
X Course description
X Course objectives (minor changes)
☐ Credit hours (credits were: _____)

☐ Total Contact Hours (total contact hours were: _____)
☐ Distribution of contact hours (contact hours were:
  lecture: _____ lab _____ clinical _____ other _____)
☒ Pre-requisite, co-requisite, or enrollment restrictions
☐ Change in Grading Method
X Outcomes/ Assessment
X Objectives/ Evaluation
☐ Other _____

Rationale for course or course change. Attach course assessment report for existing courses that are being changed.

Approvals Department and divisional signatures indicate that all departments affected by the course have been consulted.

Department Review by Chairperson   ☐ New resources needed   ☐ All relevant departments consulted

Print: ____Clarence Hasselbach____   Signature _Clarence Hasselbach_   Date: _8/19/09_
        Faculty/Preparer

Print: ____Clarence Hasselbach____   Signature _Clarence Hasselbach_   Date: _8/19/09_
        Department Chair

Division Review by Dean
☐ Request for conditional approval

Recommendation ☒ Yes ☐ No   _Rosemary Wilson_   _8/26/09_
    Dean's/ Administrator's Signature   Date

Curriculum Committee Review
Recommendation _____
☐ Tabled   ☒ Yes ☐ No   _Kim Nece_   _10/27/09_
    Curriculum Committee Chair's Signature   Date

Vice President for Instruction Approval
Roger M. Palay   _10/28/09_
    Vice President's Signature   Date

Approval ☒ Yes ☐ No ☐ Conditional

MASTER SYLLABUS

*Complete ALL sections which apply to the course, even if changes are not being made.

Course:	Course title:
CPS 293	C#.NET

Credit hours: ___4___	Contact hours per semester:	Are lectures, labs, or clinicals offered as separate sections?	Grading options:
If variable credit, give range: _____ to _____ credits	Student Instructor Lecture: __60__ __60__ Lab: _____ _____ Clinical: _____ _____ Practicum: _____ _____ Other: _____ _____ **Totals:** __60__ __60__	☐ Yes - lectures, labs, or clinicals are offered in separate sections ☒ No - lectures, labs, or clinicals are offered in the same section	☐ P/NP (limited to clinical & practica) ☐ S/U (for courses numbered below 100) ☒ Letter grades

Prerequisites. Select one:

☒ College-level Reading & Writing   ☐ Reduced Reading/Writing Scores   ☐ No Basic Skills Prerequisite

                           (Add information at Level I prerequisite)   (College-level Reading and Writing is not required.)

In addition to Basic Skills in Reading/Writing:

Level I (enforced in Banner)

	Course	Grade	Test	Min. Score	Concurrent Enrollment (Can be taken together)	Corequisites (Must be enrolled in this class also during the same semester)
	CPS 171	C+			☐	
☐ and X or	CPS 161	C+			☐	
☐ and X or	Instructor Approval				☐	
☐ and ☐ or					☐	

Level II (enforced by instructor on first day of class)

	Course	Grade	Test	Min. Score
☐ and X or				
☐ and ☐ or				

Enrollment restrictions (In addition to prerequisites, if applicable.)

☐ and ☐ or Consent required   ☐ and ☐ or Admission to program required   ☐ and ☐ or Other (please specify):

                                     Program: _____

Please send syllabus for transfer evaluation to:
Conditionally approved courses are not sent for evaluation.
Insert course number and title you wish the course to transfer as.

☐ E.M.U. as _____   ☐ _____ as _____

☐ U of M as _____   ☐ _____ as _____

☐ _____ as _____   ☐ _____ as _____

MASTER SYLLABUS

Course	Course title
CPS 293	C#.NET

Course description	This course assumes some programming experience and will cover the fundamentals of the C# language and the Microsoft .NET architecture. Language fundamentals will include C# basics and Object-Oriented Programming techniques, such as Data Abstraction, Encapsulation, Polymorphism and Inheritance. This course will cover GUI (Graphical User Interfaces) using Console Application, Windows Forms (WinForms) as well as ASPX (Active Server Pages) Web Pages. Other topics include: Properties, Exceptions, Events, Collections, Graphics Data Interface (GDI+). Data Access techniques will be covered including I/O classes, Database ADO.Net (Active-X Data Objects).
State the purpose and content of the course. Please limit to <u>500</u> characters.	

Course outcomes	Outcomes	Assessment
List skills and knowledge students will have after taking the course.	(applicable in all sections)	Methods for determining course effectiveness
	1. Identify appropriate use of C# Language Basics.	Multiple choice and short answer questions on a departmental exam.
	2. Identify appropriate use of Object-Oriented Techniques.	Multiple choice and short answer questions on a departmental exam.
Assessment method	3. Identify appropriate use of Graphical User Interfaces.	Multiple choice and short answer questions on a departmental exam.
Indicate how student achievement in each outcome will be assessed to determine student achievement for purposes of course improvement.	4. Identify appropriate use of Data Access.	Multiple choice and short answer questions on a departmental exam.
	5. Demonstrate sound software engineering techniques in developing a working software project.	A Portfolio of software programs submitted by students will be blind-scored.

Course Objectives	Objectives	Evaluation
Indicate the objectives that support the course outcomes given above.	(applicable in all sections)	Methods for determining level of student performance of objectives
	1. Identify appropriate use of C# Language Basics. (a.) Demonstrate proficiency in the use of C# primitives and basic control logic. (b.) Demonstrate proficiency in namespaces and the rich set of ".NET" system libraries. (c.) Demonstrate proficiency in utilizing all of the C# capabilities for modularization.	Multiple choice and short answer questions on unit exam and/or cumulative final exam.
Course Evaluations Indicate how instructors will determine the degree to which each objective is met for each student.	**2. Identify appropriate use of Object-Oriented Techniques.** (a.) Demonstrate proficiency in using Polymorphic and non-Polymorphic behaviors. (b.) Demonstrate proficiency using constructors and destructors. (c.) Demonstrate proficiency using C# Exceptions. (d.) Demonstrate proficiency in using C# Properties. (e.) Demonstrate proficiency in using C# Collections.	Multiple choice and short answer questions on unit exam and/or cumulative final exam.
	3. Identify appropriate use of Graphical User Interfaces (a.) Demonstrate proficiency in using Menus, and Dialog Boxes. (b.) Demonstrate proficiency in using TextBoxes, Radio Buttons, ComboBoxes, etc.	Multiple choice and short answer questions on unit exam and/or cumulative final exam.
	4. Identify appropriate use of Data Access. (a.) Demonstrate proficiency in using Input/output	Multiple choice and short answer questions on unit exam and/or cumulative final exam.

classes. (b.) Demonstrate proficiency in using SQL, and ADO (Active-X Data Objects). (c.) Demonstrate proficiency in generating ".NET" web pages on a web server.	
5. Demonstrate sound software engineering techniques in developing a working software project. (a.) Create a program that is logical, easy to understand and properly indented to solve a stated problem. (b.) Create a program that solves a stated problem and compiles properly. (c.) Create a program that executes properly to solve a stated problem.	Software programs created and evaluated.

List all new resources needed for course, including library materials.

Student Materials:

List examples of types	Currently using the textbook: Beginning C# by Karli Watson (WROX publishers)	Estimated costs
Texts Supplemental reading Supplies Uniforms Equipment Tools Software		$ 60

Equipment/Facilities: Check all that apply. (All classrooms have overhead projectors and permanent screens.)

Check level <u>only</u> if the specified equipment is needed for <u>all</u> sections of a course.	
☐ Level I classroom Permanent screen & overhead projector	☐ Off-Campus Sites ☐ Testing Center ☒ Computer workstations/lab
☐ Level II classroom Level I equipment plus TV/VCR	☐ ITV ☐ TV/VCR ☐ Data projector/computer
☒ Level III classroom Level II equipment plus data projector, computer, faculty workstation	☐ Other _____

Assessment plan:

Learning outcomes to be assessed (list from Page 3)	Assessment tool	When assessment will take place	Course section(s)/other population	Number students to be assessed
1. Identify appropriate use of C# Language Basics.	Multiple choice and short answer questions on a departmental exam.	Fall 2011 and every 3 years thereafter.	All Sections	100%
2. Identify appropriate use of Object-Oriented Techniques.	Multiple choice and short answer questions on a departmental exam.	Fall 2011 and every 3 years thereafter.	All Sections	100%
3. Identify appropriate use of Graphical User Interfaces.	Multiple choice and short answer questions on a departmental exam.	Fall 2011 and every 3 years thereafter.	All Sections	100%
4. Identify appropriate use of Data Access.	Multiple choice and short answer questions on a departmental exam.	Fall 2011 and every 3 years thereafter.	All Sections	100%
5. Demonstrate sound software engineering techniques in developing a working software project.	A Portfolio of software programs submitted by students will be blind-scored	Fall 2011 and every 3 years thereafter.	All Sections	100%

Scoring and analysis of assessment:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric.

    The multiple choice and short answer questions have well defined answers that can be objectively scored as correct or incorrect. For outcomes 1-4, the results of all sections will be tabulated and analyzed.
    The Portfolio of software programs (Outcome 5) will be blind-scored by a subset of the department using a scoring rubric made up of two components which will be added together to produce a single scored result. The scoring rubric is attached.

2. Indicate the standard of success to be used for this assessment.

    The standard for success will be that 70% of the students who take the exam will score better than 70% and earn a total score of a 6 or better on the blind-scored software program (Outcome 5 above). The total Rubric number for any given student will be the sum of the "Program Execution Rubric" plus the "Program Readability Rubric".

3. Indicate who will score and analyze the data.

    Instructors teaching CPS293 will analyze the data. For the blind-scored documents, the instructors will not be allowed to know the student who submitted the program.

4. Explain the process for using assessment data to improve the course.

    Assessment data will be used to analyze and update the course content. Analysis will also be done to evaluate the quality of questions used as part of the assessment.