

CIS 54.31 Course Outline as of Spring 2008**CATALOG INFORMATION**

Dept and Nbr: CIS 54.31 Title: PERL/CGI

Full Title: Perl & CGI

Last Reviewed: 2/25/1999

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	0	8	Lab Scheduled	0
		Contact DHR	3.50		Contact DHR	61.25
		Contact Total	5.50		Contact Total	96.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 166.25

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: CIS 84.23

Catalog Description:

An introduction to PERL (Program Extraction Report Language) which is used to create common gateway interface (CGI) scripts for use in Internet web sites. Emphasis will be placed on theory as it relates to practice. Students will create original Perl scripts and download existing scripts from the Internet, which they will revise. Lab emphasis will be placed on incorporating the Perl scripts into an existing web site.

Prerequisites/Corequisites:

Course Completion of CS 10A (or CS 10 or CIS 10 or CIS 10A or CIS 10 or BDP 10) and
Course Completion of CS 50.11B (or CIS 58.51B or CIS 84.42B)

Recommended Preparation:

Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:**Schedule of Classes Information:**

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Internet which they will revise. Lab emphasis will be placed on incorporating the Perl scripts into an existing web site. (Grade or P/NP)

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Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:

IGETC:	Transfer Area	Effective:	Inactive:
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CSU Transfer:	Effective:	Inactive:
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UC Transfer:	Effective:	Inactive:
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CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

The student will:

1. Describe the history of PERL.
2. Discuss Perl's uses and limitations
3. Explain how CGI works
4. Create PERL scripts which contain the following elements:
 - a. STDIN
 - b. Output
 - c. Numbers
 - d. Strings
 - e. Operators
 - f. Scalar variables
5. Create original PERL scripts with these more advanced features
 - a. Arrays
 - b. Control structures
 - c. Associative arrays
 - d. Regular expressions
 - e. Functions
6. Download 3-5 existing PERL scripts and explain functions of the code
7. Make changes to at least 2 of these scripts
8. Create an original PERL script that uses elements from 2 or more of these scripts
9. Produce an annotated list of resources for creating PERL scripts which will include:

- a. Electronic resources
 - b. Books
10. Given a list of 20 PERL tokens, define them with 80% accuracy

Topics and Scope:

1. PERL Basics
 - a. History of PERL
 - b. Purpose of PERL
 - c. Availability
 - d. Support
 - e. Basics Concepts
 - f. Sample programs
2. Scalar Data
 - a. Definition of Scalar Data
 - b. Numbers
 - c. Strings
 - d. Operators
 - e. Scalar Variables
 - f. Operators on scalar Variables
 - g. <STDIN> as a scalar variable
 - h. Output with print ()
 - i. The undef value
3. Arrays and List Data
 - a. What is an array
 - b. Literal representation
 - c. Variables
 - d. Operators
 - e. Scalar and Array Context
 - f. <STDIN> as an array
 - g. Variable Interpolation of an array
4. Control Structures
 - a. Statement blocks
 - b. If/Unless statement
 - c. For statement
 - d. For each statement
5. Associative Array
 - a. What is an Associative Array
 - b. Associative Array Variables
6. Basic I/O
 - a. Input from STDIN
 - b. Input from the Diamond Operator
 - c. Output from STDOUT
7. Regular expressions
 - a. Concepts about regular expressions
 - b. Simple uses of regular expressions
 - c. Patterns
 - d. Matching Operator
 - e. Substitutions
 - f. Split () and join () operators
8. Functions
 - a. System and user functions

- b. Defining a user function
- c. Invoking a user function
- d. Return values
- e. Arguments
- f. Local variables in Functions

Assignment:

Students will read approximately 25 - 20 pages of text per week.
 Students will locate and download existing PERL code from the Web.
 Students will examine existing PERL code and evaluate its function
 Students will develop at least 5 PERL scripts to accomplish various tasks.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because skill demonstrations are more appropriate for this course.

Writing
0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving
0 - 0%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams

Skill Demonstrations
60 - 80%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items

Exams
20 - 40%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category
0 - 0%

Representative Textbooks and Materials:

"Learning PERL", by O'Reilly & Associates 1993