**Bakersfield College  
Web Design and Development Certificate of Achievement  
Advisory Committee Meeting**

Date: online

**Agenda**

Introductions/Welcome

Program Overview

Progress Report

Curriculum/Program Concerns and Recommendations

Other Agenda Items

Possible Advisory Committee Involvement

**Introductions/Welcome**

Thank you for working with Bakersfield College to enhance support in the community for IT services. We are proposing the establishment of a Certificates of Achievement in Website Design and Development.

*Bakersfield College Professors*

* Creighton Magers
* Hal Mendoza
* Richard Miles
* Eddie Rangel
* Phil Whitney

*Committee Members*

* Tim Tarabey,   
  AERA Energy
* Justin Warwick,  
  Berry Petroleum Company
* Aaron Nance,   
  County of Kern
* Morgan Clayton,   
  Tel-Tec Security Systems, Inc.

**Program Overview**

We are seeking to offer an 18-unit Website Design and Development Certificate by summer of 2019.

**Progress Report**

We currently offer all the courses listed in our Website Design and Development CofA proposal.

**Curriculum/Program Concerns and Recommendations**

As many firms in our community look to organizations outside the area to develop their websites, increasing the supply of skilled developers who can design effective websites to communicate and promote local interests will continue to grow. Offering a certificate validates the talent that an individual has acquired and enhances employment opportunities. A CofA also opens the door for locals to work as independent consultants and freelance developers for firms locally, statewide, nationally and even internationally.

**Other Agenda Items**

None

**Possible Advisory Committee Involvement**

We also welcome committee members to speak about careers in the IT field, get acquainted with BC students and explore work experience opportunities for the mutual benefit of employers and students.

**Website Development and Design Certificate of Achievement  
 Survey**

***REQUIRED COURSES (15 units)***

* **Web Design: Design Tools** COMP B41 3

(no prerequisite)

* **Web Design: HTML & CSS** COMP B42 3

(no prerequisite)

* **Web Design: JavaScript** COMP B43 3

(Successful completion of COMP B42 or equivalent with a grade of C or better or assessment of student’s HTML and CSS skills and knowledge by the instructor)

* **Web Design: PHP & MySQL** COMP B94 3

(Successful completion of COMP B42 or equivalent with a grade of C or better or assessment of student’s HTML and CSS skills and knowledge by the instructor and COMP B10 or B11)

*Choose one of the following:*

* **Introduction to Programming Methodologies using Python**  COMP B10 3  
   (recommended: placement in reading level 06)
* **Programming Concepts and Methodology I** COMP B11 3  
  (prerequisites: BC placement into reading level 06 and math Level 04 or successful completion of ACDV B50 or ACDV B61 or equivalent and MATH B70 or equivalent with a grade of C or better.)

***ELECTIVE COURSES - any one of the following (3units)***

* **Digital Art - Vector** ART B20 3   
  (recommended: placement in reading level 06)
* **Digital Art - Raster** ART B24 3   
  (recommended: placement in reading level 06)
* **Database Systems - Design & Structured Query Language (SQL)** COMP B21 3  
   (recommended: placement in reading level 06)
* **CompTIA Network Security - Security+** COMP B31 3  
   (recommended: placement in reading level 06)
* **CompTIA Linux+** COMP B32 3  
   (recommended: placement in reading level 06)
* **CompTIA Networking Technologies- Network+** COMP B33 3  
   (recommended: placement in reading level 06)
* **Applied Software Design** COMP B72 3  
   (prerequisite: successful completion of COMP B10 and COMP B11 and COMP B21 or equivalent with a grade of C or better or approval of instructor)

***Committee Member Name:*** Tim Tarabey

***Title:*** Information Systems Security

***Employer:*** AERA Energy

1) Do you accept the establishment of a Website Design and Development Certificate?

Yes

2) Do you accept the recommended courses we have proposed to be part of the Website Design and Development Certificate?

Yes

3) Is there another course or program you would like to see developed?

It would be beneficial to add a web security design course that talks about web design security best practices such as OWASP.

***Committee Member Name:*** Justin Warwick

***Title:*** Software Developer

***Employer:*** Berry Petroleum Company

1) Do you accept the establishment of a Website Design and Development Certificate?

I accept the establishment.

2) Do you accept the recommended courses we have proposed to be part of the Website Design and Development Certificate?

I accept the course selection.

3) Is there another course or program you would like to see developed?

Dedicated courses regarding Security should be added, probably even some to the required curriculum.

As for totally separate program:

In an effort to describe the idea concisely, I must use non-standard terminology: something like a cross between a “data wrangler” (someone who knows a variety of techniques to extract data from a variety of sources and services, transform data somewhat efficiently, validate data, clean up and improve data, reformat data) and an “process automation specialist” (someone who can use a variety of scripting and automation languages and tools to perform, on a scheduled basis, and in an error-tolerant fashion, a scripted version of everything they just figured out how to do in their data wrangling role).

As an illustrative scenario: someone who could be assigned the task of “getting the monthly production data from the Department of Oil, Gas, & Geothermal Resources” published on a public FTP site “into our SQL database”. They would be able to create a script to successfully retrieve the correct files from the FTP site, then manipulate the file(s) some, filter, et cetera, then connect to the destination DB and push all the data in. All of this should report on itself in the event of failure and perhaps would be able to detect and avoid duplicate records, et cetera.

Notably, this role would *not* require *deep* understanding of algorithms and in exchange more practical familiarity with particular de facto standard tool chains and scripting languages as well as practical familiarity with de facto standard data formats (CSV, PDF, XML, JSON).

***Committee Member Name:*** Aaron Nance

***Title:*** Technology Services Manager

***Employer:*** Kern County

1) Do you accept the establishment of a Website Design and Development Certificate?

Yes. I think it’s a great idea and looks to have a solid foundation.

2) Do you accept the recommended courses we have proposed to be part of the Website Design and Development Certificate?

Yes, mostly. I would question the relevance of the CompTia certifications to a basic web development certificate, as they are more administration and hardware oriented and not really programming focused.

3) Is there another course or program you would like to see developed?

I think Project Management has quietly become a major factor in development with the emergence of Agile, Scrum, and other iterative rapid development techniques. Traditional prescriptive concepts are of huge importance as well. I’ve been in the development field for almost 20 years now. I am just recently CAPM and PMP certified, and I am kicking myself for having not looked at this area of development sooner. Project Management is especially beneficial because it can be applied to any industry, not just technology/development.

***Committee Member Name:*** Morgan Clayton

***Title:*** President

***Employer:*** Tel-Tec Security Systems, Inc.

1) Do you accept the establishment of a Website Design and Development Certificate?

Yes

2) Do you accept the recommended courses we have proposed to be part of the Website Design and Development Certificate?

See Below

3) Is there another course or program you would like to see developed?

Html, css, php, mysql, python are all very good dinosaur languages to learn on, because they are very old and have a lot of support information available on the web. It’s also an excellent starting point to understand how websites work.

If the course is to have the students ready to work now and the future I would look at some other languages that are good at concurrent processes. I would also look at frameworks, because you typically don’t reinvent the wheel and sometimes people lead you to believe that things are harder than they really are.