

CALL MEETING TO ORDER: 3:08 p.m.

MEMBERS: Chris Warden, Kathy Sparling, Mandy Kwok-Yip, Rachel Sherman, Aaron Moss, Yvette Niccolls, David Topham, Alyce Reynolds, Chieko Honma

OTHERS PRESENT: Shelley Lawrence, Jon Degallier, Kay Harrison, James Baxter, Heidi Barkow, Ron Bye, Anu Ganguly, Wayne Takakuwa, Narinder Bansal, Terry Taskey, Eddie West, Nancy Pauliukonis

MANAGERS PRESENT: Michael Bowman, Joe McLaughlin

APPROVAL OF MINUTES (ACTION):

April 7, 2008

Rachel Sherman made the motion to approve the minutes; seconded by Aaron Moss, motion carried.

CHAIR'S REPORT (INFORMATIONAL):

Year in review Curriculum Committee

Goals 2007-2008 (REVIEWED)

1. Complete course review for:

<p><i>- Fall 07 (99 courses)</i></p> <ul style="list-style-type: none"> a. Allied Health (2 of 13) b. ASL (2 of 29) c. Interpreter Training (6 of 23) d. Library Science (1 of 2) e. Learning Skills Program (3 of 3) f. Nursing (10 of 13) g. WEX (0 of 8) 	<p><i>-Spring 08 (99 courses)</i></p> <ul style="list-style-type: none"> a. Deaf Prep Programs (24 of 47) b. Health (0 of 2) c. Physical Therapist Assistant (1 of 19) d. Respiratory Therapy (0 of 28)
---	---

BOLD indicates how many completed of the total needing review.

2. Complete course review for Science disciplines (Extended through Spring 08):

<ul style="list-style-type: none"> a. Anthropology – 5 (0) b. Astronomy – 3 (0) c. Chemistry – 6 (6) d. Physical Science – 1 (0) e. Biology – 13 (3) 	<ul style="list-style-type: none"> f. Biotechnology – 8 (8) g. Engineering – 5 (0) h. Geography – 5 (4) i. Geology – 5 (0) j. Physics – 9 (2)
--	---

BOLD indicates what was completed.

3. Complete course review for delinquent disciplines listed:

<ul style="list-style-type: none"> a. Fore. Lang. – 16 (Fall 05) <ul style="list-style-type: none"> i. Arabic – Done ii. Chinese – Done iii. French – Done iv. German – Deactivated v. Italian - Done vi. Japanese – Done 	<ul style="list-style-type: none"> b. History – Done c. IS – 1 (Fall 05) (0 of 1) d. Poly Sci. – 2 (Fall 05) (1 of 2) e. Bus. Admin. – 9 (Spring 06) (1 of 9) f. CNET – 27 (F/S 07) (5 of 27) g. CS – 24 (F/S 07) (11 of 24) h. English – 10 (Spring 06) (7 of 10)
---	--

BOLD indicates number completed of the total remaining to review.

4. Review and approve accreditation standard II and send off to college council for final approval.

Done. Very collaborative process that lead to an amazing product with an even more amazing initial report from the visiting team. This was truly a team effort that showed our ability to work together and form a document that was accepted by all. Well done.

5. Train all approving members of curriculum on the Local Approval of Stand-alone Credit Courses (Title 5).

Done. Intitial training was completed during the first semester of this academic year. Stand-alone Credit Courses will need to be annually reviewed and sent to the system office for continued record-keeping.

6. Have a decision made regarding ESL repeatability and bring it to Faculty Senate for approval.

Done. Decision was made for us at the state level. Revised Title 5 further explains repeatability and explicitly mentions ESL classes NOT being able to repeat for apportionment

7. Explore the development and growth of service learning classes and to grow this into a service learning program.

Not much movement has happened in this area. Now that WASC is finally behind us, we will dedicate more time to explore the growth potential of service learning.

8. Inspect our current practice regarding pre- and co-requisites and explore the options associated with CurricUNET for a more user-friendly reporting system.

This goal will carry over into the 08-09 academic year. During the Summer Ohlone CurricUNET will go through some upgrades which will include the requisite system.

9. Continue to promote course outlines with student learning outcomes and assessment as the focus.

This will be an ongoing goal. It has been apparent that there is a need to work on the consistency within our committee to identify these components. This will be are large part of the new SLOA committee as well.

10. Promote the use of CurricUNET to construct new courses and programs and to review/revise existing courses and programs.

This is an ongoing goal. Also, another Summer project. We are going to attempt to be a test subject for a new CurricUNET module for program review. Preliminary reports show that with this module, we will be able to link programs that are going through program review to budgetary needs.

11. Continue the emphasis on the development of transfer degrees.

Committee approved 1 degree this academic year (ENVS). This is an ongoing goal that will be adjusted a bit for next year. The system office has concerns with calling degrees "transfer" as this gives the implication that if a student is awarded the degree they will assume that they will be able to transfer.

- Discussion of the progress/completion of the 07-08 goals. Rachel Sherman will be our new Curriculum Chair starting fall 08.

MINOR REVISION (INFORMATIONAL):

AH 114 Laboratory and Diagnostic Tests – Author: Katherine Dewan

Class Schedule Description: There will be 8 modules focused on a set of laboratory and diagnostic tests related to a disease-oriented patient case. Minor revision to Counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; updated textbooks

AJ 140 Post PC 832 Laws of Arrest – Author: Rich Cominos
Title Change from Post Level-III Part I Laws of Arrest; Repeatable 3 times; **Catalog Description:** This course is POST certified as 40 hours PC 832 Laws of Arrest for code enforcement vocations. This course covers professionalism for code enforcement officers, basic legal concepts, the laws of evidence and investigative techniques, and unarmed defense and handcuffing techniques. The course is principally directed at individuals who deal with members of the general public in their regular occupation and who can be expected to enforce code violations by issuing citations, if necessary. **Class Schedule Description:** Covers legal concepts, evidence, investigation for code officers and those issuing citations. Minor revision to counselor description; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook and supplies

CS 118 Introduction to Assembly Language Programming – Author: David Topham
Revision to course assignments; methods of instruction; textbook

CS 121 Applied Programming in Visual C++ - Author: David Topham
Minor revision to student learning outcomes; course assignments; methods of instruction; supplies

CS 122 C#.NET Programming – Author: David Topham
Advisory: CS-101; **Catalog Description:** This course is an introduction to C#.NET Programming. Data types, methods, classes, control structures, loops, arrays, inheritance, exception handling, database connectivity, GUI controls, and Microsoft.NET architecture will be covered in this class. The primary objective is to teach the student how to develop C#.NET programs using Windows. Students will design forms, a shopping cart application, and Web automation by using HTML, XML, and C#.NET programming languages. Debugging will also be covered in class. Revision to course assignments; methods of evaluation/assessment; methods of instruction; textbook

MAJOR REVISIONS (ACTION – CONSENT):

ARBC 101A Elementary Arabic – Author: Mikelyn Stacey
Catalog Description: This course is an introduction to the speaking, reading and writing of Arabic including fundamentals of grammar and Arabic culture. **Class Schedule Description:** Introduction to the culture speaking, reading and writing of Arabic. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

ARBC 101B Elementary Arabic – Author: Mikelyn Stacey
Prerequisite: ARBC-101A; **Catalog Description:** This course is a continuation to the speaking, reading and writing of Arabic and includes fundamentals of grammar and Arabic culture. **Class Schedule Description:** Continuation to the culture, speaking, reading and writing of Arabic. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

ASL 101A Principles of American Sign Language I – Author: Sandra Klopping
Revision to: **Catalog Description:** This course covers the beginning fundamental principles of American Sign Language and introduces basic information about the Deaf Community and Deaf Culture. This course is required for students majoring in American Sign Language & Deaf Studies and is a prerequisite for students wishing to enter the Interpreter Preparation Program. Students are expected to attend outside events at their own expense. **Class Schedule Description:** Intense Level I study of American Sign Language, the Deaf Community and Deaf Culture. Minor revision to: **Counselor Information. Revisions to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; updated textbooks**

BIOL 101A Principles of Biology--Molecular & Cellular Biology – Author: James Baxter
Catalog Description: This course is the first of a two-semester course that provides an introduction to biological principles for biology and health professions majors. Topics emphasized biochemistry, cell structure and function, metabolism, cellular reproduction, Mendelian genetics, molecular genetics, genetics of prokaryotes and viruses, biotechnological techniques, and evolution. Students taking this course should plan to also take Biology 101B. **Class Schedule Description:** Introduction to biological principles with emphasis on cell and molecular biology. Continued by Biology 101B. Minor revision to counselor description; major revision to student learning outcomes; course outline; course assignments; methods of instruction; and updated textbooks

BIOT 100 Biotechnology and Society – Author: James Baxter
Advisory change from ENGL-151B and MATH-151 to ENGL-101A; major revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction

BIOT 112 Introduction to Bioinformatics – Author: James Baxter

Advisory change from CS-101L and BIOT-110B to ENGL-101A and MATH-151; **Catalog Description:** This course is an introduction to computational biology and focuses on the computer analysis of biological sequences and structures. The course includes molecular biology databases, database searching, statistical techniques, genome annotation methods, phylogenetic analysis, protein structure prediction and microarray technology. Revision to counselor description; major revision to student learning outcomes; course outline; course assignments; methods of instruction; updated textbook

CNET 146 Introduction to UNIX/Linux – Author: Marge Segraves

Catalog Description: This lecture-lab course introduces functions and features of UNIX/Linux operating system including origin and evolution, hardware and software, graphical user interface, files and file system structure, system services, processes, background processing, scheduling, file security, editors, file sharing, and redirection and piping. Students are introduced to networking and internetworking, internet, shell programming and a variety of UNIX/Linux tools commonly used for software development and system administration in a UNIX/Linux environment. **Class Schedule Description:** Learning functions and features of UNIX/Linux operating system. Minor revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

CNET 147 UNIX/Linux Shell Scripting - Author: Marge Segraves

Title change from: UNIX Shell Programming; Repeatable 3 times; **Catalog Description:**

This hands-on course introduces a variety of tools and concepts used for working with a UNIX/Linux-based computer system. The course will present the concept of a shell and describe differences between Bourne, Berkeley C, Korn, and Bash shells. Students will be given instruction and assignments in the use of vi, sed, awk and other tools as time and interest permit. Students will write shell script programs to exercise their understanding of tools and concepts. **Class Schedule Description:** This course introduces UNIX/Linux tools for the development of shell scripts. Revision to counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

CNET 156A LAN Switching and Wireless – Author: Richard Grotegut

Title Change from: Routing and Switching (Cisco Networking Academy CCNA III); Advisory: CNET-155A;

Catalog Description: This course focuses on the technologies and protocols needed to design and implement a converged switched network. Students will learn how to configure a switch for basic functionality and implement virtual LANs, VTP, and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol in a converged network are presented and students will develop the knowledge and skills necessary to implement a WLAN (wireless LAN) in a small-to-medium network. This course is preparation for the Cisco Certified Network Associate (CCNA) certification. **Class Schedule Description:** Learn technologies and protocols needed to design and implement a converged switched network. Preparation for CCNA. Minor revision to counselor description; student learning outcomes; course outline; course assignments; methods of instruction; textbook.

CNET 156B WAN Design and Support – Author: Richard Grotegut

Deletion portion of title: (Cisco Networking Academy CCNA 4); Grading option from GR to GC; **Advisory:**

CNET155A, CNET155B, and CNET156A; Revision to: **Catalog Description:** This is the last of four courses designed to introduce students to current and emerging networking technology. The focus of this course is on Wide Area Network (WAN) technologies. This course is preparation for the Cisco Certified Networking Associate (CCNA) certification. **Class Schedule Description:** Wide Area Networking, WAN Design and Security, PPP, Frame Relay. Preparation for CCNA. Minor revision to counselor description; student learning outcomes; course outline; methods of instruction; textbook

CNET 182 Advanced Routing (Cisco Networking Academy CCNP I) – Author: George Wong

Catalog Description: This is the first of four courses leading to the Cisco Certified Network Professional (CCNP) designation. This course introduces students to scaling IP networks. Students learn to use VLSM, private addressing, and NAT optimize IP address utilization. The majority of the course content is related to learning how to implement the RIPv2, EIGRP, OSPF, IS-IS, and BGP routing protocols. In addition, the course details the important techniques used for multicasting, route filtering and route redistribution. This course will prepare students for the Cisco Certified Networking Professional (CCNP) 642-901 exam. This course is normally taught in a nine-week period. (Formerly CS-188A) Revision to student learning outcomes; course outline; textbook

CS 101L Computer Applications – Author: Rick Arellano

Advisory: CS/CNET-101; **Catalog Description:** This course covers topics in word processing, spreadsheets, database, presentation graphics, information management, and integration of all the above-mentioned programs.

Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; updated textbooks; supplies

CS 104A Visual Basic .NET Programming – Author: David Topham

Revisions to Course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook and supplies

CS 104B Advanced .Net Programming – Author: David Topham

Advisory: CS-122; **Revision to Catalog Description:** This is an advanced course for .NET application design and development. Three major areas covered are: Graphical User Interface for Windows applications, ADO.NET and SQL for access to databases, and XML and ASP.NET for web forms and services. The .NET Framework will be used in class for program development. Students may select either C# or Visual Basic.NET to complete projects. Minor revision to course assignments; methods of instruction

CS 104C ASP.NET Programming – Author: David Topham

Change **advisory** to: CS-104A and CS-122; **Revision to Catalog Description:** This course is an introduction to ASP.NET Programming. The primary objective is to teach students how to develop ASP.NET pages using MS SQL server or MS ACCESS, and ADO.NET. Students will design forms, a shopping cart application, automatic email programs, and Web automation by using XML, JavaScript, Visual Basic.NET or C#.NET programming languages. Security and Debugging will also be covered in class. Revision to student learning outcomes; course assignments; methods of evaluation/assessment; methods of instruction

CS 104D Introduction To Web Services for .NET – Author: David Topham

Change **Advisory** to: CS-104A and CS-122; minor revision to counselor description; course assignments; methods of instruction

CS 116 Object-Oriented Programming using C++ - Author: David Topham

Change Prerequisite to **Advisory:** CS-102; revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook; supplies

CS 125 Introduction to Programming Using Java – Author: Yong Gao

Revision to student learning outcomes; course outline; course assignments; methods of instruction and updated textbook

CS 170 Java Programming – Author: Yong Gao

Advisory: CS-102 and CS-125; Revisions to: **Catalog Description:** This intermediate-level programming course is intended for those students who already have completed an introductory programming course. It presents a comprehensive study of the object-oriented programming in Java. Fundamentals of encapsulation, inheritance, polymorphism, abstraction, method overloading and overriding, exception handling, GUI components, event handling, multimedia programming, and input/output streams are introduced. **Class Schedule Description:** This intermediate-level programming course presents a study of Java and object-oriented programming concepts and skills. Revisions to: **Counselor Information;** student learning outcomes; course outline; course assignments; methods of instruction and updated textbook

CS 172 Servlets and JSP – Author: Yong Gao

Revision to counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook and supplies

CS 173 Java EE and EJB – Author: Yong Gao

Title change from: J2EE and EJB; repeatability change to 0; **Catalog Description:** This course is an introduction to Java EE and EJB (Enterprise Java Beans). Students will design and develop the business applications and Web Services using Java EE and EJB. **Class Schedule Description:** An introduction to Java EE and EJB with emphasis in business applications and Web Services. Revisions to: Counselor Information; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; updated textbook and supplies

CS 175 Script Technology for Web Development – Author: Jon Degallier

Added 3.00 hours lab; Delete Advisories; **Catalog Description:** This is an introductory to intermediate course for the scripting language JavaScript, the glue between Web interactivity tools. The topics span from basic programming concepts to specific JavaScript syntax and methods used to manipulate information and code, which allow web forms validation, rewriting of HTML pages on the fly, and access to XML and other server

information. **Class Schedule Description:** Learn to use JavaScript, the glue between Web interactivity tools today. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbooks

CS 178 XML – Author: Yong Gao

Advisory: CS-170; Revision to counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook and supplies

DEAF 120B Basic Grammar II – Author: Alyce Reynolds

Advisory: DEAF-120A; revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 121A Intermediate Grammar I – Author: Alyce Reynolds

Advisory: DEAF-120A and DEAF-120B; minor catalog description addition; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; textbook

DEAF 130B Literacy II – Author: Alyce Reynolds

Revisions to: Catalog Description: The focus of this course is on development of practical reading and practical language skills in applied settings. This course is the second semester of a two-semester English Literacy program for Deaf & HOH students. This course is taught in ASL only. The emphasis is on increased practical reading skills and vocabulary. **Class Schedule Description:** Practical reading for Deaf students. Taught in ASL.

Revisions to: counselor description (minor); student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbooks

DEAF 160A Personal and Social Awareness I – Author: Claire Ellis

Revision to course assignments; methods of evaluation assessment; methods of instruction; textbooks and supplies

DEAF 160B Personal and Social Awareness II – Author: Claire Ellis

Advisory: ASL Fluency; Limitation on Enrollment: Deaf Students only; Prerequisite: DEAF-160A; course assignments; methods of evaluation/assessment; methods of instruction; textbooks; supplies

DEAF 165 Study Techniques: MS Word, MS Excel and MS Access - Author: Joe McLaughlin & Ron Bye

Renumber from DEAF - 165A; Title change from: Study Techniques: MS Word, Introduction To-Windows, and E-Mail; **Catalog Description:** Introductory use of Microsoft Word, Microsoft Excel, and Microsoft Access to prepare students for college-level work. It is taught only in American Sign Language (ASL).

Class Schedule Description: Basic course in Microsoft Word, Excel, and Access. This course is taught only in ASL. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 166 Study Techniques: Introduction to Multimedia Photoshop, MS PowerPoint, and MS Publisher – Author: Joe McLaughlin & Ron Bye

Renumber from 166A; Title addition: “MS Publisher”; **Advisory** change to ASL Fluency and DEAF -165; **Catalog Description:** Introductory course in the use of PhotoShop, Microsoft PowerPoint, MS Publisher, and use of digital camera to prepare students for college-level work. It is taught only in American Sign Language (ASL). **Class Schedule Description:** Basic course in PhotoShop, MS PowerPoint, MS Publisher, and use of digital camera. This course is taught only in ASL. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 176A Academic Vocabulary I – Author: Nancy Pauliukonis

Advisory: ASL Fluency; **Class Schedule Description:** First of two courses focusing on vocabulary found in academic coursework. Taught in ASL only. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 176B Academic Vocabulary II - Author: Nancy Pauliukonis

Advisory: ASL Fluency; Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 188A Intensive University Preparation: Academic Writing I - Author: Nancy Pauliukonis
Advisory: ASL Fluency; **Catalog Description:** This course is the first course in a three-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of sentence types and mechanics and focuses on reading critically and writing well-developed and well-organized paragraphs and essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. The course is taught in ASL only and is not A.A. degree applicable. **Class Schedule Description:** First of three intensive writing courses to prepare students for college coursework. Taught in ASL only. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 188B Intensive University Preparation: Academic Writing II - Author: Nancy Pauliukonis
Advisory: ASL Fluency; **Catalog Description:** This course is the second course in a three-semester program in writing with an emphasis on composition, critical reading skills, and the development of natural English expression. This course reviews the fundamentals of paragraph development and focuses on reading critically and writing well-developed and well-organized paragraphs and essays. The course is designed to prepare students who are fluent in ASL for college-level English composition and academic course work. The course is taught in ASL only and is not A.A. degree applicable. **Class Schedule Description:** Second of three intensive writing courses to prepare students for college coursework. Taught in ASL only. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 189A Intensive University Preparation-Academic Reading I - Author: Nancy Pauliukonis
Title Change From: Intensive University Prep-Reading; **Unit** value change from 3.00 to 4.00; **lecture** hours changed from 3.00 to 4.00 and **lab** hours changed from 3.00 to 4.00; **Advisory:** ASL Fluency; **Catalog Description:** DEAF 189A is the first course of a three-semester academic reading program. This course provides an introduction to reading and study techniques. Students learn to analyze, annotate, and summarize a variety of readings including essays, news articles, and textbook chapters. The course is designed to prepare students for college-level course work. DEAF 189A is taught in ASL only and is not A.A. degree applicable. **Class Schedule Description:** The first of three intensive study courses in reading and study skills. Taught in ASL only. Revision to counselor description; Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 189B Intensive University Preparation-Academic Reading II - Author: Nancy Pauliukonis
Title change from: Intensive University Prep-Reading II; Unit value change from 4.00 units to 3.00 units; lecture hrs change from 4.00 hrs to 3.00 hrs; Repeatability change from 5 to 3 times; Change **Advisory** from DEAF-189A to ASL Fluency; **Catalog Description:** DEAF 189B is the second course of a three-semester reading program. This course on improvement of reading and study skills. Students analyze, annotate, and summarize readings of greater length and complexity. The course is designed to prepare students for college-level course work. The course is taught in ASL only and is not A.A. degree applicable. **Class Schedule Description:** The second of three intensive study courses in reading and study skills. Taught in ASL only. Revision to counselor description; Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 191 Human Potential Seminar – Author: Claire Ellis
Limitation on enrollment: Limited to Deaf students only; minor revision to catalog description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook; supplies

DEAF 331 Counseling the Deaf – Author: Tom Holcomb
Advisory: 151B and 163; fluency in ASL **Limitation on Enrollment:** ASL; **Catalog Description:** This course is designed to provide students with skills that are needed to work with deaf students in a school setting. The course is taught in ASL. **Class Schedule Description:** Provides students needed skills to work with deaf students in deaf education programs. Taught in ASL. **Revision to:** counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 332 Development of the Deaf Child – Author: Tom Holcomb
At end of each sentence for catalog description, schedule description and counselor description change Taught in ASL only to just Taught in ASL. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

DEAF 343 Field Work in Deaf Education – Author: Tom Holcomb
Limitation on Enrollment: Enrollment in the Deaf Education Certification Program; **Advisory** ENGL 151B and 163; **Catalog Description:** This course is designed to provide Deaf Education students with hands-on experience in a deaf school setting. A weekly seminar is included for group discussion of practicum experience. The course is taught in ASL. **Class Schedule Description:** Fieldwork course designed for deaf Education students. The course is taught in ASL. **Revision to:** counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction

HIST 104A Western Civilization With a World Perspective until 1600 – Author: Alan Kirshner
Addition to end of **title: “Until 1600”**; **Advisory: ENGL-101A**; **Class Schedule Description:** Civilization in the Mediterranean to 1600 with a look at other world cultures. **Revision to** course outline; course assignments; methods of evaluation/assessment; methods of instruction; updated textbook

HIST 104B Western Civilization With a World Perspective From 1600 – Author: Alan Kirshner
Addition to title: “From 1600”; **Advisory: ENGL-101A**; **Catalog Description:** This course is a survey of the cultural, social and political developments in Western Civilization with a world perspective from the rise of the nation-state through contemporary times with a speculative look at the future. This course is also offered in a self-paced format whereby the students can complete the course at their own speed. **Class Schedule Description:** Cultural, social, and political developments in Western Civilization, with a world perspective from 1600 BCE. **Revision to** counselor description; **Revision to** student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; updated textbook

HIST 115 Asian-American History – Author: Ken Hanada
Advisory: ENGL-101A; **Catalog Description:** This course is a review of Asian Pacific Americans in the social, political, economic and cultural development of the United States from Reconstruction to the present. Groups surveyed will include Korean, Filipino, Asian Indian, Pacific Islanders, South East Asian, Japanese, and Chinese. **Class Schedule Description:** Examines and compares the diverse historical and contemporary experiences of major Asian American groups. **Revision to** counselor description; **Revision to** student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook
Pulled for discussion – Revised so it could possibly be applied to Plan B American Institutions.
Mandy Kwok Yip made the motion to approve seconded by Arron Moss. Motion carried.

INT 106 Discourse Analysis: ASL – Author: **Shelley Lawrence**
Title Change from ASL Discourse to Discourse Analysis: ASL; **Corequisite** INT-107, INT-112, INT 115, INT-116, INT-127; **Catalog Description:** This course is an overview of ASL discourse. Topics include discourse structure, language variation, genre, register, prosody, cohesion, turn-taking and backchanneling and gendered communication. Transcription conventions will be reviewed for noting language samples. **Class Schedule Description:** Overview of ASL discourse including language variation, register, prosody and cohesion. **Revision to** counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

INT 107 Interpreter Orientation – Author: **Shelley Lawrence**
Corequisite: INT-106, INT-112, INT-115, INT 116, INT-127; **Catalog Description:** This course provides students with a working knowledge of the interpreting profession and examines basic principles and practices of interpreting. It also examines student strengths and weaknesses as they relate to interpreting and working with deaf people as well as developing and assessing interactional skills needed for working in a practice profession. **Class Schedule Description:** Overview of the interpreting profession and skills necessary to be successful. **Revision to** counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

INT 112 Comparative Linguistics: ASL and English – Author: Shelley Lawrence
Title Change from: Applied Linguistics for Interpreters; **Limitation on Enrollment:** Acceptance into the IPP Program. **Corequisite:** INT-106, INT-107, INT-115, INT-116, INT-127; **Class Schedule Description:** A comparison of the linguistics of ASL and English with particular emphasis on syntax. **Revision to** counselor description; student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbooks

INT 115 Interpreting Preparation Skills – Author: Shelley Lawrence
Corequisite: INT-106, INT-107, INT-112, INT-115, INT-116, INT-127; **Catalog Description:** This course provides the theoretical basis for interpretation. The interpreting process is broken down into process parts, isolated, and then practiced. Skills include memory, discrimination, cloze, discourse analysis, content mapping, summarizing

and paraphrasing skills . Expressive fingerspelling is also practiced. **Class Schedule Description:** Interpretation theory and skills in sub-tasks necessary for interpreting. Revision to counselor description; Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

INT 145 Practicum: Deaf Mentorship – Author: Shelley Lawrence

Unit value change: from 5.00 units to 4.50 units; lab hrs change from 15.00 to 13.50 hrs; **Prerequisite:** Completion of first semester IPP courses with grade of "C" or better. **Corequisite:** INT 121 Consecutive Interpreting: ASL/English; **Catalog Description:** This course is designed to provide IPP students exposure to Deaf adults and the role of the interpreter in a variety of settings. Students may be provided the opportunity to do some low-risk interpreting. A weekly seminar is included to process experiences of practicum experience. **Class Schedule Description:** Fieldwork designed to pair students with Deaf adults in various settings to examine the world from a Deaf lens. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

INT 295 Interpreting Internship – Author: Shelley Lawrence

Renumber from 190 to INT 295; **Unit** value change from 5.00 to 4.50 units; **lab hrs** changed from 15 hrs to 13.50 hrs. **Prerequisite:** Completion of first semester IPP courses with grade of "C" or better. **Corequisite** INT 121 Consecutive Interpreting: ASL/English; **Catalog Description:** This course is designed to provide IPP students exposure to Deaf adults and the role of the interpreter in a variety of settings. Students may be provided the opportunity to do some low-risk interpreting. A weekly seminar is included to process experiences of practicum experience. **Class Schedule Description:** Fieldwork designed to pair students with Deaf adults in various settings to examine the world from a Deaf lens. Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook

Pulled for discussion to change the number from INT 190 to INT 295 for second year students. **Rachel Sherman made the motion to approve INT 295 seconded by Chieko Honma. Motion carried.**

JPNS 101A Elementary Japanese – Author: Mikelyn Stacey

Added counselor description; revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbooks

JPNS 101B Elementary Japanese – Author: Mikelyn Stacey

Prerequisite: JPNS-101A; revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbooks

LS 151 Internet for Research – Author: K.G. Greenstein

Revision to counselor description; Revision to counselor description; Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction

LSP 102 Learning Skills: Quantitative Reasoning – Author: Terry Taskey

Revision to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction

PS 105 Comparative Government – Author: Matt Freeman

Advisory: ENGL-101A; Revisions to: Catalog Description: This course offers a comparative study of contemporary forms of governments, institutions, and political problems of selected national governments. **Class Schedule Description:** Governmental institutions, political processes, socio-economic development and issues in countries around the world. Revisions to student learning outcomes; course outline; course assignments; methods of evaluation/assessment; methods of instruction; textbook update

Pulled off for further discussion – Kay Harrison spoke on behalf of Matt Freeman, revisions taken care of. **Alyce Reynolds made the motion to approve PS 105; second by Rachel Sherman. Motion carried.**

Alyce Reynolds made the Motion to approve courses that were not pulled; seconded by Mandy Kwok-Yip. Motion carried.

NEW COURSES (ACTION):

CHMT 103A

Chemical Technology I - Author: Yvette Niccolls

CHMT 103B

Chemical Technology II - Analytical Skills – Author: Yvette Niccolls

CHMT 104A/BIOT 104A

HPLC – Author: Yvette Niccolls & Anusree Ganguly

CHMT 104B/BIOT 104B

Gas Chromatography – Author: Yvette Niccolls & Anusree Ganguly

CHMT 104C/BIOT 104C

IR and UV-Vis Spectroscopy – Author: Yvette Niccolls & Anusree Ganguly

CHMT 104D/BIOT 104D Nuclear Magnetic Resonance (NMR) Spectroscopy – Author: Yvette Niccolls & Anusree Ganguly

CHMT 102/BIOT 102 Chemical Safety and Hygiene – Author: Yvette Niccolls & Anusree Ganuly
Will be articulated in the 2+2 at the high schools.

Rachel Sherman made the motion to approve CHMT 103A, 103B, CHMT/BIOT 104A, CHMT/BIOT 104B, CHMT/BIOT 104C, CHMT/BIOT 104D, CHMT/BIOT 105; seconded by Mandy Kwok-Yip. Motion carried.

DEAF 188C Intensive University Preparation: Academic Writing III – Author: Nancy Pauliukonis
Rationale presented by Nancy Pauliukonis –

Mandy Kwok-Yip made the motion to approve DEAF-188C; seconded by Jeffrey Watanabe. Motion carried with 1 abstention

INT 116 Discourse Analysis: English – Author: Shelley Lawrence
INT 127 Ethics 1 – Author: Shelley Lawrence
INT 153 Interpreting: ASL to English – Author: Shelley Lawrence
INT 199A Introduction to Multicultural Issues in Interpreting – Author: Shelley Lawrence
INT 199B Introduction to Oral Facilitation – Author: Shelley Lawrence
INT 199C Introduction to Medical Interpreting – Author: Shelley Lawrence
INT 199D Introduction to Educational Interpreting K-12 – Author: Shelley Lawrence
INT 199E Introduction to Post-Secondary Interpreting – Author: Shelley Lawrence
Shelley Lawrence presented rationale for new INT courses –

Aaron Moss made the motion to approve INT 116, 127, 153, 199A, 199B, 199C, 199D, 199E; seconded by Dave Topham. Motion carried.

PE 361B2 & B3 Intermediate Racquetball – Author: Chris Warden
Chris made the rationale adding Intermediate Racquetball –

Rachel Sherman made the motion to approve PE 361B2 & B3; seconded by Mandy Kwok-Yip. Motion carried.

COURSE DEACTIVATION (CONSENT):

AH 131 Acupressure Connection II
CHIN 121A Mandarin Chinese Conversation I
CHIN 121B Mandarin Chinese Conversation II
DEAF 165B Study Techniques: MS Excel and
DEAF 170A Fundamentals of English Composition
DEAF 170B Principles of English Composition
DEAF 171A Fundamentals of Reading
DEAF 171B Principles of Reading
DEAF 172A English Composition Techniques
DEAF 172B Strategies for Successful Writing
DEAF 173A Reading Techniques
DEAF 173B Strategies for Successful Reading
Combined with DEAF 188C
DEAF 312 Linguistics of ASL
DEAF 340 Recreation Techniques for Deaf Students
DEAF 342 Report Writing
ITAL 101A Elementary Italian
ITAL 101B Elementary Italian
ITAL 121A Beginning Conversational Italian
JPNS 120A Beginning Conversational Japanese

Aaron Moss made the motion to deactivate the above list; seconded by Jeffrey Watanabe. Motion carried.

ADDITIONAL APPROVALS (INFORMATIONAL):

GENERAL EDUCATION:

CULTURAL DIVERSITY:

INFORMATION COMPETENCY:

DISTANCE LEARNING:

CNET-147	NIX/Linux Shell Scripting Marge Segraves
CS 104B	Advanced .Net Programming – Author: David Topham
CS 104C	ASP.NET Programming – Author: David Topham
CS 104D	Introduction To Web Services for .NET – Author: David Topham
CS 175	Script Technology for Web Development – Author: Jon Degallier
HIST 104A	Western Civilization With a World Perspective until 1600 – Author: Alan Kirshner

PROGRAM REVISIONS (ACTION/INFORMATION):

Five General Degrees (AA/AS)

Business

Fine Arts

Liberal Arts

Natural Science

Social Science

Still in communication with Stephanie Low – finally got a response to recommend – task force will continue to move forward to get Stephanie’s approval.

Biotechnology Certificate of Accomplishment

Certificate of Accomplishment: Biotechnology: Biomanufacturing

This certificate program provides students with an excellent preparation in various protocols and hands-on laboratory skills used in many biotechnology companies. A goal of the program is to prepare students for entry-level positions in biotech and pharmaceutical companies.

This certificate prepares students as laboratory research assistants and biomanufacturing technicians. It provides excellent preparation in laboratory skills used in entry-level positions at many biotechnology and pharmaceutical companies.

Student Learning Outcomes

1. Discuss and practice proper laboratory safety procedures, laboratory etiquette, biosafety, and bioethics.
2. Defend the need for proper documentation in the biotechnology laboratory environment, and demonstrate the methods of proper documentation by creating and maintaining laboratory notebooks and other relevant documents.
3. Apply the scientific method, demonstrate good experimental design, and operate with scientific integrity in all scientific investigations.
4. Employ the correct rules of mathematical operation, and be able to apply these to the preparation of reagents, buffers, pH adjustments, etc.
5. Recognize the key theoretical concepts in molecular biology and biotechnology as they relate to the biotechnology industry, and to assess and evaluate current and future trends in biotechnology.
6. Demonstrate proper techniques common to the biotechnology laboratory; demonstrate proper protocols in the use of instrumentation; evaluate data generated in the biotechnology laboratory.
7. Demonstrate proficiency in a variety of specialized areas of biotechnology; thus qualifying the student to perform successfully in a broad array of job needs and opportunities.

MAJOR FIELD

BIOT 105 Introduction to Cell & Molecular Biology	4
BIOT 121 Biotechnology Careers	1
CHEM 109 Biochemistry for Health Science and Biotechnology	4
BIOT 110A1 Introduction to DNA Techniques	1
BIOT 110A2 PCR I and DNA Sequencing	1
BIOT 110A3 Protein Isolation and Assays	1
BIOT 113 GMP/GLP	1
BIOT 123 Writing SOPs	0.5
BIOT 115A Animal Cell Culture Techniques	2
BIOT 111A Genomic and cDNA Library Construction and Analysis	1
BIOT 111B PCR Primer Design and Optimization and Reverse Transcription PCR	1
Total Units =	17.5

Optional Courses (recommended)

BIOT 112 Introduction to Bioinformatics	2
BIOT 114 Introduction to Plant Biology	3
BIOT 115B Bioreactor Cell Culture Techniques	2
BIOT 117 Immunology	1
BIOT 119 Clean Room Operations	0.5
BIOT 120 Introduction to Scanning Electron Microscopy	1
BIOT 122 Introduction to Nanotechnology	3
BIOT 131 Computing in Biotechnology	4
BIOT 132 DNA Computing	2
BIOT 133 SAS Programming	3
BIOT 143 Advanced SAS programming BIOT	0
BIOT 203 Biotechnology Internship	3
Total Units =	16.00

Rachel Sherman made the motion to approve Certificate of Accomplishment: Biotechnology: Biomanufacturing; seconded by Mandy Kwok-Yip. Motion carried.

Geographic Information Systems (GIS) Certificate of Accomplishment
Certificate of Accomplishment: Geographic Information Systems (GIS)

GIS is a computer-based database management system for capture, storage, retrieval, analysis, and display of spatial data. Students who complete this program will be better prepared to map data for decision-making in business, environmental protection, risk assessment, utility planning and management, emergency response, land use planning, transportation planning, delivery route planning, real estate, and crime prevention.

Certificates of Accomplishment are awarded upon the completion of an organized course of study for a specific purpose, usually career or job related. Certificates of **Accomplishment** consist of a maximum of 18 units and allow students to finish the program in a shorter period of time. In order to earn a Certificate of **Accomplishment**, students must:

- Satisfactorily complete the courses listed for the particular certificate.
- Complete at least 50% of the required units at Ohlone College.
- Maintain a 2.0 grade point average.

Student Learning Outcomes

- Distinguish the characteristics and key principles of geography, specifically the subdivision of cartography.
- Develop an understanding of uses, organization and analysis of geographical data.
- Select appropriate techniques and technology to analyze geographic problems.
- Demonstrate technical skills in data management including data input, editing, query, analysis and display.
- Produce and arrange a GIS project using GIS technical skills.

MAJOR FIELD

GEOG 121 Introduction to Geographic Information Systems (GIS)	2
GEOG 122 Advanced Desktop GIS	2
GEOG 123 GIS Projects	2
Total Units =	6

Choose one course or combination of courses from the following:

ANTH 102 Cultural Anthropology	3	or
ANTH 105 Field Archaeology	3	or
ENVS 108 Human Ecology	3	or
GEOG 101 Physical Geography	3	and
GEOG 101L Physical Geography Laboratory	1	or
GEOG 102 Cultural Geography	3	or
GEOG 104 The World's Nations	3	or
GEOG 105 California Geography	3	or
GEOL 101 Introduction to Geology	3	and
GEOL 101L Physical Geology Laboratory	1	or
RE 122 Real Estate Practice	3	or
SOC 102 Social Problems of a Diverse Society	3	
Total Units =	3.00 – 4.00	
Total Units =	9.00 – 10.00	

Rachel Sherman made the motion to approve **Certificate of Accomplishment: Geographic Information Systems (GIS)**; seconded by Yvette Niccolls. Motion carried.

Photography Certificate of Accomplishment –TABLED UNTIL SEPTEMBER 2008

Certificate of Accomplishment: Photography

The Photography Certificate of Completion signifies that students have acquired skills in fundamental processes of photography including traditional and digital work processes with emphasis on creative expression. This certificate helps students develop concepts and skills that will enable them to develop creatively in the fine arts.

The Photography Certificate of Completion signifies that students have acquired skills in fundamental processes of photography including traditional and digital work processes with emphasis on creative expression. This certificate helps students develop concepts and skills that will enable them to develop creatively in the fine arts.

Student Learning Outcomes

1. Be confident in the fundamental processes of traditional film photography.
2. Be confident in the fundamental processes of digital photography.
3. Acquire the concepts and skills that will enable them to develop creatively in the fine arts.
4. Demonstrate techniques used in industry and biotechnology research.

MAJOR FIELD

ART 133A Black and White Photography	3	or
ART 133B Intermediate Black and White Photography	3	
ART 139A Beginning Digital Photography	3	or
ART 139B Intermediate Digital Photography	3	
ART 131 History of Photography	3	
ART 138A Beginning Photoshop	3	or
ART 138B Intermediate Photoshop	3	

Total Units = 12

PROGRAM – NEW (ACTION):

Certificate of Accomplishment: Environmental Stewardship

This Certificate of **Accomplishment** signifies that students have completed coursework in biological, human, socioeconomic and political principles as they relate to and are influenced by the environment. The courses include an emphasis on a scientific understanding of the environment, social and economic concepts, and an awareness of the behaviors that protect or damage the earth and its resources. On completion of this certificate, students will have the ability to better understand their relationship with the planet and obtain an understanding of how their behavior (including energy and natural resource use) affects the environment they inhabit. This certificate provides an excellent background for the various careers in the fields of environmental studies, environmental sciences, public policy, and energy management.

Certificate of Accomplishment.

Student Learning Outcomes

1. Understand the scientific and environmental concepts and theories used in environmental studies.
2. Assess the preservation of natural resources and the potential impact of societies overusing natural resources.
3. Evaluate the role of the main players in environmental regulations and policy making.
4. Demonstrate the importance of being part of and how to get involved with the decision making process of environmental laws and regulations both in the private and public sectors.
5. Recognize the link between healthy ecosystems and healthy human beings.

MAJOR FIELD

ENVS 101 Natural Resource Management	3
ENVS 102 Environmental Law and Regulations	3
ENVS 103 The Environment and Human Health	3
ENVS 108 Human Ecology	3
ENVS 142 Environmental Biology	4

Total Units = 16

David Topham made the motion to approve **Certificate of Accomplishment: Environmental Stewardship**; seconded by Yvette Niccolls. Motion carried.

ISSUES (INFORMATION/ACTION):

- Membership 2008-09
Returning: Dave Topham, Mandy Kwok-Yip, Rachel Sherman (chair), Yvette Niccolls,
Unsure: Chieko Honma, Kathy Sparling
Unknown on the rest. Will send out a confirmation request.
- 2008-09 Calendar
Curriculum Calendar 2008-09
3:00-5:00 p.m. – ITC Room (changes will be announced via email)

2008

Screening Meeting

August – TBD
(Flex Week)
September 22
October 20
November 17

Approval/Issues Meetings

September 8
October 6
November 3
December 1

2009

January – TBD
February 23
March 16
April 20

February 2
March 2
April 6
May 4

Calendar approved for 2008-09

- International Ed Committee (Kay Harrison & Eddie West) – Internationalize the curriculum – has put together a strategic plan. Surveying faculty on how their courses apply global topics. We have won a grant Business and International grant for International Business Certificate. The monies are to be used on existing courses. How can we implement this in CurricUNET? Identify courses that should have an international component. Want to get steps started.

ADJOURN: 5:09 p.m.

ADDENDUM

New Department (Approval):

Chemical Technology (CHMT) – Rationale presented by Anu Ganguly. Other community colleges have followed this route. Courses written according to ACS American Chemical Society. Start at the high schools. Vocational tops code different rules for minimum qualifications who can teach this. Kathy Sparling, seconded by Chieko Honma, motion carried.

Degrees (Approval):

Associate of Science Degree in Biotechnology

Associate of Science Degree: Associate of Science Degree: Biotechnology

The AS Degree in Biotechnology is a program designed to train students in the methods and techniques used in biotechnology. Students in this degree program complete the biotechnology science core courses and electives listed below. In addition to the core courses listed below, students must complete Ohlone College General Education Plan A. Fifty percent of the core courses must be completed at Ohlone. Courses in this program train students in standard biotechnology laboratory techniques and record keeping. The program prepares students for entry-level positions in biomanufacturing and pharmanufacturing positions.

Requirements for the AS Degree:

- a) Complete the major field courses with a 2.0 grade point average.
- b) Complete Plan A, B, or C General Education Requirements. These are specified in the Ohlone College catalog.
- c) Complete at least 60 applicable units with a 2.0 grade point average.
- d) Complete at least 12 units at Ohlone College.
- e) Complete at least 50% of the major field courses at Ohlone College.
- f) Complete BIOT 115A, BIOT 115B, BIOT 117, and BIOT 119 at Ohlone College.

Student Learning Outcomes

1. Discuss and practice proper laboratory safety procedures, laboratory etiquette, biosafety, and bioethics.
2. Defend the need for proper documentation in the biotechnology laboratory environment, and demonstrate the methods of proper documentation by creating and maintaining laboratory notebooks and other relevant documents.
3. Apply the scientific method, demonstrate good experimental design, and operate with scientific integrity in all scientific investigations.
4. Demonstrate techniques used in industry and biotechnology research.

Biotechnology Core Courses

Students must complete Ohlone College General Education Plan A.

CHEM 109 Biochemistry for Health Science and Biotechnology	4	
CAOT 148 Computer Applications in Biotechnology	0.5	
BIOT 105 Introduction to Cell & Molecular Biology	4	
BIOT 110A1 Introduction to DNA Techniques	1	
BIOT 110A2 PCR I and DNA Sequencing	1	
BIOT 110A3 Protein Isolation and Assays	1	
BIOT 113 GMP/GLP	1	
BIOT 115A Animal Cell Culture Techniques	2	
BIOT 115B Bioreactor Cell Culture Techniques	2	
BIOT 117 Immunology	1	
BIOT 121 Biotechnology Careers	1	
BIOT 131D Review of Biotechnology Concepts	1	
ENGL 156 Introduction to Report & Technical Writing	3	
BIOT 119 Clean Room Operations	0.5	
BIOT 114 Introduction to Plant Biology	3	or
BIOT 122 Introduction to Nanotechnology	3	or
BIOT 133 SAS Programming	3	
BIOT 123 Writing SOPs	0.5	
MATH 159 Elements of Statistics and Probability	5	

Total Units = 31.5

Students complete 10.5-14.0 units from the list of electives to bring the total units to 60.

Kathy Sparling made the motion to approve Associate of Science Degree: Associate of Science Degree: Biotechnology; seconded by Rachel Sherman. Motion carried.

NEW CERTIFICATES: (APPROVAL)

Quality Control/Assurance/Research

Certificate of Achievement : Quality Control/Assurance/Research Certificate of Achievement

The Certificate of Achievement in Biotech Quality Control/Quality Assurance/Research is a 23.5 unit program designed to train students in methods and techniques used in biotechnology QA/QC and research settings. Courses in this program train students in DNA and protein laboratory techniques and assays, laboratory record keeping, sterile techniques, advanced PCR procedures, and genomic/cDNA library construction and analytical skills. The program prepares students for entry-level positions in biotechnology/pharmaceutical companies as research assistants, quality control and/or quality assurance assistants/technicians and laboratory assistants/technicians.

The program prepares students for entry-level positions in biotechnology/pharmaceutical companies as research assistants, quality control and/or quality assurance assistants/technicians and laboratory assistants/technicians.

Student Learning Outcomes

1. Discuss and practice proper laboratory safety procedures, laboratory etiquette, biosafety, and bioethics.
2. Defend the need for proper documentation in the biotechnology laboratory environment, and demonstrate the methods of proper documentation by creating and maintaining laboratory notebooks and other relevant documents.
3. Apply the scientific method, demonstrate good experimental design, and operate with scientific integrity in all scientific investigations.
4. Demonstrate techniques used in industry and biotechnology research.

5. Recognize the key theoretical concepts in molecular biology and biotechnology as they relate to the biotechnology industry, and to assess and evaluate current and future trends in biotechnology.
6. Demonstrate proper techniques common to the biotechnology laboratory; demonstrate proper protocols in the use of instrumentation; evaluate data generated in the biotechnology laboratory.
7. Demonstrate proficiency in a variety of specialized areas of biotechnology; thus qualifying the student to perform successfully in a broad array of job needs and opportunities.

MAJOR FIELD

BIOT 105 Introduction to Cell & Molecular Biology	4
CHEM 109 Biochemistry for Health Science and Biotechnology	4
CAOT 148 Computer Applications in Biotechnology	0.5
BIOT 113 GMP/GLP	1
BIOT 123 Writing SOPs	0.5
BIOT 121 Biotechnology Careers	1
BIOT 110A1 Introduction to DNA Techniques	1
BIOT 110A2 PCR I and DNA Sequencing	1
BIOT 110A3 Protein Isolation and Assays	1
BIOT 115A Animal Cell Culture Techniques	2
BIOT 115B Bioreactor Cell Culture Techniques	2
BIOT 119 Clean Room Operations	0.5
BIOT 111A Genomic and cDNA Library Construction and Analysis	1
BIOT 111B PCR Primer Design and Optimization and Reverse Transcription PCR	1
ENGL 156 Introduction to Report & Technical Writing	3

Total Units = 23.5

Biostatistics

Certificate of Achievement: Biostatistics Certificate of Achievement

The certificate of achievement in biostatistics is a 31.5 unit program designed to train students in methods and techniques used in biotechnology statistical analysis. Courses in this program train students in DNA and protein laboratory techniques and assays, laboratory record keeping, sterile techniques, and mathematical analysis of laboratory outcomes. The program prepares students for entry-level positions in bio-manufacturing, biostatistician assistant, clinical data assistant/associate, validation assistant/technician, production planner/scheduler, and research assistant/associate positions requiring skills in statistics.

The certificate of achievement in biostatistics prepares students in methods and techniques used in biotechnology statistical analysis. Students are prepared for entry-level positions in bio-manufacturing, biostatistician assistant, clinical data assistant/associate, validation assistant/technician, production planner/scheduler, and research assistant/associate positions requiring skills in statistics.

Student Learning Outcomes

1. Discuss and practice proper laboratory safety procedures, laboratory etiquette, biosafety, and bioethics.
2. Defend the need for proper documentation in the biotechnology laboratory environment, and demonstrate the methods of proper documentation by creating and maintaining laboratory notebooks and other relevant documents.
3. Apply the scientific method, demonstrate good experimental design, and operate with scientific integrity in all scientific investigations.

Demonstrate techniques used in industry and biotechnology research.

Recognize the key theoretical concepts in molecular biology and biotechnology as they relate to the biotechnology industry, and to assess and evaluate current and future trends in biotechnology.

Demonstrate proper techniques common to the biotechnology laboratory; demonstrate proper protocols in the use of instrumentation; evaluate data generated in the biotechnology laboratory.

Demonstrate proficiency in a variety of specialized areas of biotechnology; thus qualifying the student to perform successfully in a broad array of job needs and opportunities.

MAJOR FIELD

BIOT 105 Introduction to Cell & Molecular Biology	4
CHEM 109 Biochemistry for Health Science and Biotechnology	4
CAOT 148 Computer Applications in Biotechnology	0.5
BIOT 113 GMP/GLP	1

BIOT 123 Writing SOPs	0.5
BIOT 121 Biotechnology Careers	1
BIOT 110A1 Introduction to DNA Techniques	1
BIOT 110A2 PCR I and DNA Sequencing	1
BIOT 110A3 Protein Isolation and Assays	1
BIOT 115A Animal Cell Culture Techniques	2
BIOT 115B Bioreactor Cell Culture Techniques	2
BIOT 119 Clean Room Operations	0.5
BIOT 112 Introduction to Bioinformatics	2
BIOT 133 SAS Programming	3
ENGL 156 Introduction to Report & Technical Writing	3
MATH 159 Elements of Statistics and Probability	5
Total Units = 31.5	

Cell Production/Fermentation

Student Learning Outcomes

1. Discuss and practice proper laboratory safety procedures, laboratory etiquette, biosafety, and bioethics.
2. Defend the need for proper documentation in the biotechnology laboratory environment, and demonstrate the methods of proper documentation by creating and maintaining laboratory notebooks and other relevant documents.
3. Apply the scientific method, demonstrate good experimental design, and operate with scientific integrity in all scientific investigations.
4. Demonstrate techniques used in industry and biotechnology research.
5. Recognize the key theoretical concepts in molecular biology and biotechnology as they relate to the biotechnology industry, and to assess and evaluate current and future trends in biotechnology.
6. Demonstrate proper techniques common to the biotechnology laboratory; demonstrate proper protocols in the use of instrumentation; evaluate data generated in the biotechnology laboratory.
7. Demonstrate proficiency in a variety of specialized areas of biotechnology; thus qualifying the student to perform successfully in a broad array of job needs and opportunities.

MAJOR FIELD

BIOT 105 Introduction to Cell & Molecular Biology	4
CHEM 109 Biochemistry for Health Science and Biotechnology	4
CAOT 148 Computer Applications in Biotechnology	0.5
BIOT 113 GMP/GLP	1
BIOT 123 Writing SOPs	0.5
BIOT 121 Biotechnology Careers	1
BIOT 110A1 Introduction to DNA Techniques	1
BIOT 110A2 PCR I and DNA Sequencing	1
BIOT 110A3 Protein Isolation and Assays	1
BIOT 115A Animal Cell Culture Techniques	2
BIOT 115B Bioreactor Cell Culture Techniques	2
BIOT 119 Clean Room Operations	0.5
BIOT 117 Immunology	1
ENGL 156 Introduction to Report & Technical Writing	3
Total Units = 22.5	

Kathy Sparling made the motion to approve Associate of Science Degree: Associate of Science Degree: Biotechnology; Certificate of Achievement : Quality Control/Assurance/Research; Certificate of Achievement: Biostatistics; Cell Production/Fermentation; seconded by Rachel Sherman. Motion carried.