



**Danita Redd**

**Counseling Faculty**

**Professional Organizations:**

National Career Development Association (NCDA),

National Association of Advisors for the Health Professions, Inc. (NAAHP)

Western Association of Advisors for the Health Professions, Inc. (WAAHP),

The American Psychological Association (APA),

The Foundation for Human Enrichment (FHE)

***"Our nation will succeed or fail to the degree that all of us citizens and businesses alike are active participants in building strong, sustainable and enriching communities."***

***Arnold Hiatt***

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**I. Brief Overview of Proposal**

***"The first duty of a human being is to assume the right functional relationship to society -- more briefly, to find your real job, and do it."***

***Charlotte Perkins Gilman***

I am a member of the Counseling Faculty. I teach Career Development courses (COUN M02 and COUN M02A) and I provide career and academic counseling. My three specialty areas are career development for undecided majors; advisement of students majoring in engineering, health sciences, mathematics and science; and service learning with a developing emphasis on international service for community college students. It is to further development my knowledge of international service programs that are feasible for community college students that I make this sabbatical request.

Specifically, I would spend the period of my sabbatical developing an *international service guide* for community college students. The guide would *identify programs*, whether or not a program *issues academic credit*, *how to apply* to each program, and *interviews* with organizers, founders, administrators and volunteers of various programs, etc. I would *write an extensive essay* on the benefits of international service that focuses on the opportunity to *explore potential new careers and gain valuable experiences*. The essay would be required reading for the career development courses I teach. This semester I have approximately 130 students enrolled in the two career development courses I teach. The guide would be printed as a hard copy, distributed to students and posted to the Moorpark College faculty webpage I am developing for myself (to be completed by the end of November 2009). The page is currently being vetted by faculty members for the majors I advise.

Also, I would submit the gathered information for a poster or workshop presentation in the upcoming years for Multicultural Day and to the various professional organizations to which I am a member. Specifically I am seeking to present to the NCD, NAAHP, and WAAHP. If fiscally feasible, I am going to present the results for an international career conference and an ethnic studies conference.

Components of the essay would include information about the following:

1. International Volunteer Activities for Health Sciences Students which would include such organizations as Médecins Sans Frontières/Doctors Without Borders (winners of the Nobel Prize, 1999) (<http://doctorswithoutborders.org> and <http://www.msf.org/>) I have already communicated with the Los Angeles Office of Médecins Sans Frontières.
2. Tips for undecided majors on how to use their international service learning projects for insight into possible majors and careers.
3. Inspirational information about my experiences as an international volunteer at Casa de Los Amigos in Mexico City (<http://www.casadelosamigos.org/>) during my sabbatical and my past experiences working in Peru ([www.crossculturalsolutions.org](http://www.crossculturalsolutions.org)) and Africa. I would comment on the USA and Mexican volunteers, their reasons for volunteering and what they are learning about themselves and cross-cultural understanding.

**To restate my request:** I would spend my sabbatical writing an essay about international volunteerism and compiling a pamphlet/guide booklet specifically targeted for community college students while volunteering in Mexico City. The service in Mexico City would give me access to staff and volunteers to assist me in the completion of the project.

This proposal, also, addresses goal #4 and #5 of the "Year of Service" which is our campus wide project. The goals are to make service learning an integral part of many courses as possible and to broaden campus awareness for volunteer opportunities. Service is message of the White House Administration and its service website which is as follows: <http://www.serve.gov/>

## II. Short Background about My Interest and What Led to My Interest

***"How wonderful it is that nobody need wait a single moment before starting to improve the world."***

***Anne Frank***

In the myriad of instructional topics I speak to students about career development I include information about the "win-win" benefits of volunteering. In the ever competitive job market, the skills students gain as a volunteer builds their résumé. I have investigated service learning at local community colleges and used the information to contribute to the development of curriculum that became WEXP M30, Service Learning. I also investigated in depth one student oriented international volunteer program that I refer to students who inquire ([www.crossculturalsolutions.org](http://www.crossculturalsolutions.org) and [http://en.wikipedia.org/wiki/Cross-Cultural\\_Solutions](http://en.wikipedia.org/wiki/Cross-Cultural_Solutions)).

My interest in service learning has developed into a specific focus on what one would learn as an international volunteer and that the ability to adapt to a new environment and learn a language are highly valued in a global job market. In many international service programs, volunteers are given the opportunity to be involved in many aspects of their host organizations, which is not always the case in the "real-world" job market. The life of an international volunteer is as "real-world" as it gets and most students would find their time abroad to be life-changing and worth every unearned penny.

## III. Rationale

***"Volunteering can be an exciting, growing, enjoyable experience. It is truly gratifying to serve a cause, practice one's ideals, work with people, solve problems, see benefits, and know one had a hand in them."***

***Harriet Naylor***

The reason for a sabbatical on international service is to provide community college students with information about its benefits for career development and to provide them with a resource guide to finding programs in which to serve. International service work, also, is an inexpensive way for students to travel, provides them with hosts who serve as guides and is a "real world" opportunity to get to know people of various cultural backgrounds. The materials I would develop would enhance our career development curriculum.

## IV. Documentation

### Attachments:

1. Letter from Casa de Los Amigos
2. Moorpark College Catalog Description: WEXP M30, Service Learning
3. Moorpark College Catalog Descriptions for Counseling Courses
4. SCANS Outline (Secretary's Commission for Achieving Necessary Skills)
5. Rough Draft of pages 2 - 9 of the Developing Faculty Website for Danita Redd (to be completed by November 30, 2009)
6. Please check the Link to a Special Report for College students by Monster.com, "Volunteer for Your Career":  
<http://career-advice.monster.com/job-search/Getting-Started/Volunteer-for-Your-Career/article.asp>

## V. Benefit to Faculty Member

***"It is one of the most beautiful compensations of this life that no man can sincerely try to help another without helping himself."***

**Ralph Waldo Emerson**

I would develop an expertise on international service and have a self written essay for my students to read and to modify for presentation at conferences, conventions and workshops and to submit for professional publication. I have many students asking for resources to help them locate international volunteer programs. The sabbatical would give me time to develop a resource for students that I can hand to them or direct them to on my campus website. The pamphlet (guide) would have a disclaimer that it is a resource for them to use but that Moorpark College is not affiliated with any of the programs.

## VI. Benefit to Students

***"Everybody can be great because anybody can serve... You only need a heart full of grace, a soul generated by love."***

**Martin Luther King Jr.**

Students who utilize the resources I would provide would benefit by the following:

1. Students would develop their SCANS abilities. (SCANS = Secretary's Commission for Achieving Necessary Skills).
2. Students would get in touch with latent talents and abilities.
3. Students would be taught adaptability and those who begin volunteering with low language skills would quickly be taught humility, creativity and patience as they attempt to express themselves in a new way.

4. Students would develop compassion from the satisfaction of helping people and on making an impact on an international community.

### **VII. Benefit to College**

The project would further develop the curriculum and resources for career development for undecided majors (approximately 60 % of Moorpark College students) that use the Career Transfer Center and enroll in Career Development Courses which have so many students participating that the courses often have a wait list (COUN M02, COUN M02A, COUN M60C and COUN M60D). The information, also, would be made available to any interested faculty member on our campus and any other campus.

### **VIII. Benefit to District**

The Counseling Department at Moorpark College is closely connected to the other counselors in the district. District wide counseling meetings are held every one or two years. The results of my sabbatical would be presented and distributed to them at a district wide meeting or sent to them through intercampus mail and by a link sent to them in an email.

### **IX. Feasibility of Implementation**

**The feasibility of this project is high.** No funding is needed from the college and the only cost would be for xeroxing the materials for my students and colleagues. The telephone calls will be practically free of cost because I have SKYPE service that allows me to call conventional telephones for less than five dollars per month.

The work involved is the type of activity I normally engage in during my spare time but do not have time to complete due to the large number of responsibilities I currently have in my position as an academic counselor and career development classroom instructor. In the last few years, I have been taking counseling related courses and training through the Foundation for Human Enrichment and developing projects, such as putting a course on line, updating curriculum and developing an advisement website. The aforementioned projects are the type of projects that many faculty members have taken sabbaticals to complete.

I would be accepted as a long term guest and volunteer (see attachment #1) at Casa de Los Amigos in Mexico which would serve as a sanctuary and support for me to concentrate on getting the project completed within the time frame. The cost of staying in the Casa is very low and is easily within my means to pay. (<http://www.casadelosamigos.org/> )

## X. Timeline

Prior to start of sabbatical	Develop interview questionnaire and formats for the essay and pamphlet.
January 2011	Go to Mexico City and start work on the essay and pamphlet.
May 1, 2011	Send first rough draft to three colleagues for comments and editing. Two community college counselors and one Mexico City retired teacher have offered to proof read my work.
July 2011	Send second draft to proof readers.
August 2011	Have final draft printed and ready for distribution to students through website, COUN M02, COUN M02A, COUN M60C COUN M60D and the Career Transfer Center; explore the possibility of offering WEXP M30; present materials to district wide counselors and for Multicultural Day
Academic Year 2011 -2012	Present materials as much and apply to present at conferences such as the NCDA
September 2011	Apply to present at WAAHP conference
September 2012	Apply to present at NAAHP (held every other year) and WAAHP conferences

**Thank you for your consideration!**

***"The miracle is this - the more we share, the more we have."***

***Leonard Nimoy***



October 27, 2009

Sabbatical Committee of Moorpark College

Dear friends,

It would be our pleasure to welcome Danita Redd as a guest and participant in the Casa de los Amigos in Mexico City during her sabbatical, if granted, during the spring semester of the 2010 – 2011 academic year.

The Casa de los Amigos is a Center for Peace and International Understanding in Mexico City. The Casa was established as a nonprofit organization in 1956 by the Quaker community in Mexico, and its work continues to be rooted in Quaker values. The Casa is a multi-faceted organization with several programs, volunteers, community space, social and cultural activities, and social justice-oriented guest house. Our diverse community is composed of Mexican and international volunteers, students and teachers, travelers and activists, journalists and researchers, refugees and migrants, and many others. The Casa promotes peace with justice, fosters understanding between groups and individuals, and strives to support the human dignity of every person.

Danita has been a guest and volunteer at the Casa de los Amigos before and several of our community members have fond memories of working with her, and were very glad to hear that she might be returning. She has let us know that she would like to interview some of the other Casa volunteers and employees for an essay to accompany the international service pamphlet she will be writing. The Casa de los Amigos provides temporary housing to many people from around the world doing volunteer work in Mexico City, so she will find plenty of material here. Danita also let us know that she plans to bring donated children's and young adult books in English to assist in the tutoring of members of the local community.

Danita would also like to continue studying Spanish, as well as do some volunteer work here in the Casa as well while she is here, as well as participate and help with our weekly and special events. We would welcome her collaboration and participation.

Please do not hesitate to get in touch with me with any more questions about the Casa de los Amigos or Danita's proposed time here.

En paz y amistad,

Nicholas Wright  
Director  
Casa de los Amigos, A.C.

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Transfer credit CSU, credit limitations. To take this course, contact the Career Transfer Center: Call (805) 378-1536.

## **WEXP M30 – 0.5 to 4 Units Service Learning**

Prerequisites: None

Class Hours: 1.5 to 16 Other

Connects classroom and/or subject content with community service in a hands-on independent project. The individualized service-learning project will be designed to support coursework in a student's field of interest. The student will attend periodic planning and reflection sessions with others doing service-learning projects; complete a reflections journal on the project; and be provided with written evaluations by the instructor and community organization supervisor. Offered on a pass/no-pass basis only. May be taken for a total of four (4) times for credit. Applies to Associate Degree. Transfer credit: CSU

## **WEXP M31 – 0.5 Unit Job and Career Readiness**

Prerequisites: None

Class Hours: 0.5 lecture

Provides understanding of how to prepare for employment in order to achieve personal job or career goals, such as prioritizing goals, identifying key attributes that employers prize, developing an approach appropriate to goals, and self-management techniques that include building self-confidence, staying motivated, and managing stress. Will develop a professional action plan – a personalized, step-by-step employment preparation strategy. (Formerly WEXP M16) Applies to Associate Degree. Transfer credit: CSU



**COUN M60D – 0.5 Unit  
Self-Paced Career Research**

Prerequisites: None  
Recommended Prep: COUN M60C  
Class Hours: 0.5 lecture

Presents online and computer-based career research tools designed to assist students in evaluating and prioritizing career options. Research on specific careers and their correlating majors will culminate in first and second choices. Includes intake and exit individual counseling/career consultations to strategize next steps congruent with individual goals and objectives. Process will be completed in an 8-hour, self-paced format. Applies to Associate Degree. Transfer credit: CSU

**Criminal Justice**

*Program Purpose: Students who complete Criminal Justice courses will utilize the Community Policing philosophy of partnerships to interact with and influence the diverse community that the Criminal Justice system serves. Students completing the Criminal Justice program will acquire the practical knowledge and skills to successfully pass the Criminal Justice Law Enforcement vocational entrance exams and academy programs.*

Public concern with rising crime rates and the increasing role of law enforcement in public service work has contributed to the growth of criminal justice agencies throughout the nation. There is a broad range of employment opportunities for men and women in all components of the Criminal Justice System. This Criminal Justice Program offers an education to students in the varied aspects of law enforcement, court procedures and corrections. A foundation of knowledge is provided for those interested in becoming competitive candidates for these rewarding and challenging positions.

**Dean**  
Dan Brown, Phone (805) 378-1445

**Full-time Faculty**  
David Harrington, Lecann Mulville

**Counselors**  
Michael Johnson, Pamela Kennedy-Luna

**Transfer Information**  
Students planning to transfer need to consult with a counselor, prepare a Student Education Plan, and take advantage of the support services available in the Career Transfer Center located in Fountain Hall, (805)378-1536.

**Degree in Criminal Justice**  
To earn an Associate in Science Degree with a major in Criminal Justice, students complete 27 specified units, plus General Education Degree Requirements.

In addition to General Education Degree Requirements, complete the following:

Required Courses.....	Units
CJ M01 .....Introduction to Criminal Justice .....	3.0
CJ M02 .....Concepts of Criminal Law .....	3.0
CJ M03 .....Community Relations.....	3.0
CJ M04 .....Legal Aspects of Evidence .....	3.0
CJ M05 .....Principles and Procedures of the Justice System .....	3.0
CJ M06 .....Criminal Justice Report Writing .....	3.0
CJ M41 .....Introduction to Probation, Parole and Corrections .....	3.0

Two Courses from the Following 3-Unit Courses .....	6.0
CJ M10 .....Patrol Procedures.....	3.0
CJ M11 .....Criminal Investigation.....	3.0
CJ M14 .....Juvenile Procedure .....	3.0
CJ M18 .....Narcotics Investigation .....	3.0
<b>TOTAL minimum units required in major area.....</b>	<b>27.0</b>

See General Education Degree Requirements and Transfer Information.

**Certificate of Achievement in Criminal Justice <sup>2</sup> Option 1  
(More than 18 units)**

Required Courses.....	Units
CJ M01 .....Introduction to Criminal Justice .....	3.0
CJ M02 .....Concepts of Criminal Law .....	3.0
CJ M03 .....Community Relations.....	3.0
CJ M04 .....Legal Aspects of Evidence .....	3.0
CJ M05 .....Principles and Procedures of the Justice System.....	3.0
CJ M06 .....Criminal Justice Report Writing .....	3.0
CJ M41 .....Introduction to Probation, Parole and Corrections .....	3.0

Two Courses from the Following 3-Unit Courses .....	6.0
CJ M10 .....Patrol Procedures.....	3.0
CJ M11 .....Criminal Investigation.....	3.0
CJ M14 .....Juvenile Procedures.....	3.0
CJ M18 .....Narcotics Investigation .....	3.0
<b>TOTAL .....</b>	<b>27.0</b>

**Criminal Justice Courses**

**CJ M01 –3 Units  
Introduction to Criminal Justice**

Prerequisites: None  
Class Hours: 3 lecture

Introduces the history and philosophy of criminal justice in America, reviewing system recapitulation; sub-system identification; role expectations and interrelationships; crime, punishment and rehabilitation theories; and ethics, education and training issues. Applies to Associate Degree. Transfer credit: CSU; UC

**CJ M02 – 3 Units  
Concepts of Criminal Law**

Prerequisites: None  
Recommended Prep: CJ M01 and ENGL M01A or ENGL M01AH  
Class Hours: 3 lecture

Introduces the historical development and philosophy of law. Reviews constitutional provisions, definitions and classifications of crimes, and their application to the criminal justice system. Examines concepts of the law as a social force. Explores crimes against persons, property and the state as a social, religious and historical ideology. Employs legal research and review of case law methodology. Applies to Associate Degree. Transfer credit: CSU; UC

**Counseling Courses****COUN M01 – 1 Unit****Student Success**

Prerequisites: None

Class Hours: 1 lecture

Introduces strategies, attitudes and skills that promote academic success. Identifies personal obstacles to academic success with emphasis on study skills, learning styles, time management, procrastination, goal setting, stress management, concentration, adjusting to college, healthy living, and successful relationships. Introduces campus student support resources. (Formerly PG M01). Applies to Associate Degree. Transfer credit: CSU

**COUN M02 – 3 Units****Career Development**

Prerequisites: None

Class Hours: 3 lecture

Introduces self-assessment tools to identify college majors and careers by clarifying interests, skills, values, and personality type. Reviews decision-making processes, labor market trends, career research, interviewing skills, resume and cover letter writing, application completion, job search strategies, including the Internet. Applies to Associate Degree. Transfer credit: CSU

**COUN M02A – 1.5 Units****Career Development-Choosing a Major and/or Career**

Prerequisites: None

Class Hours: 1.5 lecture

Introduces self-assessment tools to identify college majors and career by clarifying interests, skills, values, and personality type. Reviews decision-making process, labor market trends, career research, and use of the internet in this process. (Formerly PG M02A) (COUN M02A and M02B is the same as COUN M02) Applies to Associate Degree. Transfer credit: CSU

**COUN M02B – 1.5 Units****Career Development-Job Search Strategies**

Prerequisites: None

Class Hours: 1.5 lecture

Reviews decision making process, labor market trends, career research, interviewing skills, resume and cover letter writing, application completion, job search strategies, and use of the Internet in this process. (Formerly PG M02B) (COUN M02A and M02B is the same as COUN M02). Applies to Associate Degree. Transfer credit: CSU

**COUN M03 – 0.5 Unit****Orientation to Moorpark College**

Prerequisites: None

Class Hours: 0.5 lecture

Introduces students to college services and requirements in order to help them define and achieve their educational goals. Under the guidance of a counselor, students will select those topics which best meet their personal educational needs. These can include but are not limited to: associate degree and transfer requirements, basics of time management, planning a career and major, financial aid and scholarship opportunities, using the college library, and other student services and workshops. Students will produce an Educational Plan at the conclusion of the course. Only offered pass/no-pass. Applies to Associate Degree.

**COUN M04 – 1 Unit****Student Development in Higher Education**

Prerequisites: None

Recommended Prep: Completion of Math and English self-assessment and orientation.

Class Hours: 1 lecture

Introduces student development and the concept of lifelong learning. Reviews student services, programs, technological and internet resources. Explores models for student success, choosing a major/career and a college, and values clarification. Evaluates time management, study skills, learning styles. Emphasizes problem solving and decision making skills. Develop personalized student educational plan (SEP). (Formerly PG M04) Applies to Associate Degree. Transfer credit: CSU

**COUN M60A-Z – 1 to 3 Units****Topics in Counseling**

Prerequisites: To be determined

Class Hours: To be determined

Each course deals with a specific topic not covered in general offerings. When offered, each course is announced in the semester's Schedule of Classes. Only offered pass/no-pass. Transfer credit: determined by transfer institution.

**Developed topics include:****COUN M60A – 1 Unit****Confident Test Taking**

Prerequisites: None

Class Hours: 1 lecture

Introduces problem-solving approaches and relaxation techniques to apply during test situations. Develops positive self-image while taking tests. Does not apply to the Associate Degree.

**COUN M60B – 0.5 Unit****Tools for Transfer**

Prerequisites: None

Recommended Prep: Completion of 30 transferable units

Class Hours: 0.5 lecture

To facilitate a smooth transfer from Moorpark College to four year colleges and universities, provides information about timelines and application processes including essays for applications, applications for financial aid and scholarship applications, and resources in the Career Transfer Center, such as on-line articulation information. Only offered pass/no-pass. Applies to Associate Degree.

**COUN M60C – 0.5 Unit****Self-Paced Career Assessment**

Prerequisites: None

Class Hours: 0.5 lecture

Introduces online and computer-based career self-assessment tools to identify and prioritize values, interests, skills, and personality attributes culminating in options in college majors and careers in an 8-hour, self-paced format. Includes intake and exit individual counseling/career consultations to strategize next steps congruent with individual goals and objectives. Applies to Associate Degree. Transfer credit: CSU.

## SCANS Skills: Foundation and Competencies

The 1991 report *What Work Requires of Schools: A SCANS Report for America 2000* of the Secretary's Commission on Achieving Necessary Skills identified a three-part "Foundation" and five basic "Competencies" that have since come to serve as guiding principles for most career-oriented curricula:

- A Three-Part Foundation: Outline
- A Three-Part Foundation: Definitions
- Five Competencies: Outline
- Five Competencies: Definitions

### SCANS: A Three-Part Foundation

**Basic Skills:** Reads, writes, performs arithmetic and mathematical operations, listens, and speaks.

- A. *Reading:* Locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.
- B. *Writing:* Communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.
- C. *Arithmetic:* Performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques.
- D. *Listening:* Receives, attends to, interprets, and responds to verbal messages and other cues.
- E. *Speaking:* Organizes ideas and communicates orally.

**Thinking Skills:** Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons.

- A. *Creative Thinking:* Generates new ideas.
- B. *Decision Making:* Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative.
- C. *Problem Solving:* Recognizes problems and devises and implements plan of action.
- D. *Seeing Things in the Mind's Eye:* Organizes and processes symbols, pictures, graphs, objects, and other information.
- E. *Knowing How to Learn:* Uses efficient learning techniques to acquire and apply new knowledge and skills.
- F. *Reasoning:* Discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

**Personal Qualities:** Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty.

- A. *Responsibility:* Exerts a high level of effort and perseveres towards goal attainment.
- B. *Self-Esteem:* Believes in own self-worth and maintains a positive view of self.
- C. *Sociability:* Demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings.
- D. *Self-Management:* Assesses self accurately, sets personal goals, monitors progress, and exhibits self-control.
- E. *Integrity/Honesty:* Chooses ethical courses of action.

### SCANS Foundation: Definitions

## Basic Skills

**Reading.** Locates, understands, and interprets written information in prose and documents--including manuals, graphs, and schedules--to perform tasks; learns from text by determining the main idea or essential message; identifies relevant details, facts, and specifications; infers or locates the meaning of unknown or technical vocabulary; and judges the accuracy, appropriateness, style, and plausibility of reports, proposals, or theories of other writers.

**Writing.** Communicates thoughts, ideas, information, and messages in writing; records information completely and accurately; composes and creates documents such as letters, directions, manuals, reports, proposals, graphs, flow charts; uses language, style, organization, and format appropriate to the subject matter, purpose, and audience. Includes supporting documentation and attends to level of detail; checks, edits, and revises for correct information, appropriate emphasis, form, grammar, spelling, and punctuation.

**Arithmetic.** Performs basic computations; uses basic numerical concepts such as whole numbers and percentages in practical situations; makes reasonable estimates of arithmetic results without a calculator; and uses tables, graphs, diagrams, and charts to obtain or convey quantitative information.

**Mathematics.** Approaches practical problems by choosing appropriately from a variety of mathematical techniques; uses quantitative data to construct logical explanations for real world situations; expresses mathematical ideas and concepts orally and in writing; and understands the role of chance in the occurrence and prediction of events.

**Listening.** Receives, attends to, interprets, and responds to verbal messages and other cues such as body language in ways that are appropriate to the purpose; for example, to comprehend; to learn; to critically evaluate; to appreciate; or to support the speaker.

**Speaking.** Organizes ideas and communicates oral messages appropriate to listeners and situations; participates in conversation, discussion, and group presentations; selects an appropriate medium for conveying a message; uses verbal language and other cues such as body language appropriate in style, tone, and level of complexity to the audience and the occasion; speaks clearly and communicates a message; understands and responds to listener feedback; and asks questions when needed.

## Thinking Skills

**Creative Thinking.** Uses imagination freely, combines ideas or information in new ways, makes connections between seemingly unrelated ideas, and reshapes goals in ways that reveal new possibilities.

**Decision Making.** Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternatives.

**Problem Solving.** Recognizes that a problem exists (i.e., there is a discrepancy between what is and what should or could be), identifies possible reasons for the discrepancy, and devises and implements a plan of action to resolve it. Evaluates and monitors progress, and revises plan as indicated by findings.

**Seeing Things in the Mind's Eye.** Organizes and processes symbols, pictures, graphs, objects or other information; for example, sees a building from a blueprint, a system's operation from schematics, the flow of work activities from narrative descriptions, or the taste of food from reading a recipe.

**Knowing How to Learn.** Recognizes and can use learning techniques to apply and adapt new knowledge and skills in both familiar and changing situations. Involves being aware of learning tools such as personal learning styles (visual, aural, etc.), formal learning strategies (notetaking or clustering items that share some characteristics), and informal learning strategies (awareness of unidentified false assumptions that may lead to faulty conclusions).

**Reasoning.** Discovers a rule or principle underlying the relationship between two or more objects and applies it in

solving a problem. For example, uses logic to draw conclusions from available information, extracts rules or principles from a set of objects or written text; applies rules and principles to a new situation, or determines which conclusions are correct when given a set of facts and a set of conclusions.

## Personal Qualities

*Responsibility.* Exerts a high level of effort and perseverance towards goal attainment. Works hard to become excellent at doing tasks by setting high standards, paying attention to details working well, and displaying a high level of concentration even when assigned an unpleasant task. Displays high standards of attendance punctuality, enthusiasm, vitality, and optimism in approaching and completing tasks.

*Self-Esteem.* Believes in own self-worth and maintains a positive view of self; demonstrates knowledge of own skills and abilities; is aware of impact on others; and knows own emotional capacity and needs and how to address them.

*Sociability.* Demonstrates understanding friendliness, adaptability, empathy, and politeness in new and on-going group settings. Asserts self in familiar and unfamiliar social situations; relates well to others; responds appropriately as the situation requires; and takes an interest in what others say and do.

*Self-Management.* Assesses own knowledge, skills, and abilities accurately; sets well-defined and realistic personal goals; monitors progress toward goal attainment and motivates self through goal achievement; exhibits self-control and responds to feedback unemotionally and nondefensively; is a "self-starter."

*Integrity/Honesty.* Can be trusted. Recognizes when faced with making a decision or exhibiting behavior that may break with commonly-held personal or societal values; understands the impact of violating these beliefs and codes on an organization, self, and others; and chooses an ethical course of action.

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## SCANS: Five Competencies

**Resources:** Identifies, organizes, plans, and allocates resources.

- A. *Time:* Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules.
- B. *Money:* Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives.
- C. *Material and Facilities:* Acquires, stores, allocates, and uses materials or space efficiently.
- D. *Human Resources:* Assesses skills and distributes work accordingly, evaluates performance and provides feedback.

**Interpersonal:** Works with others.

- A. *Participates as Member of a Team:* Contributes to group effort.
- B. *Teaches Others New Skills.*
- C. *Serves Clients/Customers:* Works to satisfy customers' expectations.
- D. *Exercises Leadership:* Communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
- E. *Negotiates:* Works toward agreements involving exchange of resources, resolves divergent interests.
- F. *Works with Diversity:* Works well with men and women from diverse backgrounds.

**Information:** Acquires and uses information.

- A. *Acquires and Evaluates Information.*
- B. *Organizes and Maintains Information.*
- C. *Interprets and Communicates Information.*
- D. *Uses Computers to Process Information.*

**Systems:** Understands complex interrelationships.

- A. *Understands Systems:* Knows how social, organizational, and technological systems work and operates effectively with them.
- B. *Monitors and Corrects Performance:* Distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions.
- C. *Improves or Designs Systems:* Suggests modifications to existing systems and develops new or alternative systems to improve performance.

**Technology:** Works with a variety of technologies.

- A. *Selects Technology:* Chooses procedures, tools, or equipment including computers and related technologies.
- B. *Applies Technology to Task:* Understands overall intent and proper procedures for setup and operation of equipment.
- C. *Maintains and Troubleshoots Equipment:* Prevents, identifies, or solves problems with equipment, including computers and other technologies.

## SCANS Competencies: Definitions

### Resources

*Allocates Time.* Selects relevant, goal-related activities, ranks them in order of importance, allocates time to activities, and understands, prepares, and follows schedules.

*Allocates Money.* Uses or prepares budgets, including making cost and revenue forecasts, keeps detailed records to track budget performance, and makes appropriate adjustments.

*Allocates Material and Facility Resources.* Acquires, stores, and distributes materials, supplies, parts, equipment, space, or final products in order to make the best use of them.

*Allocates Human Resources.* Assesses knowledge and skills and distributes work accordingly, evaluates performance, and provides feedback.

### Interpersonal

*Participates as a Member of a Team.* Works cooperatively with others and contributes to group with ideas, suggestions, and effort.

*Teaches Others.* Helps others learn.

*Serves Clients/Customers.* Works and communicates with clients and customers to satisfy their expectations.

*Exercises Leadership.* Communicates thoughts, feelings, and ideas to justify a position, encourages, persuades, convinces, or otherwise motivates an individual or groups, including responsibly challenging existing procedures, policies, or authority.

*Negotiates.* Works towards an agreement that may involve exchanging specific resources or resolving divergent interests.

*Works with Cultural Diversity.* Works well with men and women and with a variety of ethnic, social, or educational backgrounds.

## Information

*Acquires and Evaluates Information.* Identifies need for data, obtains it from existing sources or creates it, and evaluates its relevance and accuracy.

*Organizes and Maintains Information.* Organizes, processes, and maintains written or computerized records and other forms of information in a systematic fashion.

*Interprets and Communicates Information.* Selects and analyzes information and communicates the results to others using oral, written, graphic, pictorial, or multi-media methods.

*Uses Computers to Process Information.* Employs computers to acquire, organize, analyze, and communicate information.

## Systems

*Understands Systems.* Knows how social, organizational, and technological systems work and operates effectively within them.

*Monitors and Corrects Performance.* Distinguishes trends, predicts impact of actions on system operations, diagnoses deviations in the function of a system/ organization, and takes necessary action to correct performance.

*Improves and Designs Systems.* Makes suggestions to modify existing systems to improve products or services, and develops new or alternative systems.

## Technology

*Selects Technology.* Judges which set of procedures, tools, or machines, including computers and their programs, will produce the desired results.

*Applies Technology to Task.* Understands the overall intent and the proper procedures for setting up and operating machines, including computers and their programming systems.

*Maintains and Troubleshoots Technology.* Prevents, identifies, or solves problems in machines, computers, and other technologies.

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To contribute or correct items, please e-mail information to: [extend@stolaf.edu](mailto:extend@stolaf.edu) or click [here](#).

[| Home Page](#) | [| Resources](#) | [| Top of Page](#) | [| Next Page](#) | [| Contents](#) |

Last Update: 07/10/96

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**Counseling Faculty**  
**Professor of Counseling and Career Development**  
**Moorpark College (MC)**

*Member of the*  
*National Association of Advisors for the Health Professions, Inc.,*  
*Western Association of Advisors for the Health Professions, Inc.,*  
*The American Psychological Association,*  
*The Foundation for Human Enrichment*

Link to the Biography of Professor Redd

To book an appointment: (805) 378-1428

For the High School at Moorpark College: (805) 378-1444

Link for the High School @ Moorpark College

**Majors**

**Popular Majors in Science and Engineering**

Astronomy & Astrophysics    Biological & Life Sciences    Biotechnology    Chemistry &  
Biochemistry    Earth Sciences    Engineering    Environmental Sciences  
Forensic Science    Geography and Geology, what is the difference?    Geology  
Physical Geography    Mathematics    Nanotechnology    Physics

**Popular Majors in Health Sciences**

Chiropractors    Dental Hygienists    Dentists    Dietiticians and Nutritionists    Holistic Medicine  
Occupational Therapists    Ophthalmologists    Optometrists  
Eastern Medicine/Oriental Medicine    Massage Therapists    Naturopathics/Naturopathic Doctors  
Nurses (Transfer)    Pharmacists    Physical Therapists    Physicians  
Physician Assistants    Podiatrists    Sports Medicine    Veterinarians    Yoga Teachers

**Career, College Success, Counseling and Transfer Services at**  
**Moorpark College**



MC Counseling Courses    Career Transfer Center    MC Counseling Department    College  
Success    Internships and Work Experience at MC  
MC's What Can I Do With This Major: A-Z Links    U.S. Bureau of Labor Statistics(USBLS)/A-Z  
Careers

**International Service Learning Guide:**  
**Under Construction**

**This page does not substitute for a need to meet with Professor Redd or one of the other counselors. It was designed to give you a place to explore your interest in science and health sciences majors and to give you an idea of possible courses to take. You need to develop an education plan (list of courses) that is specific to your desired level of education and transfer institutions. This information is constantly changing and is subject to updates.**

**Plan to take courses in your major during your first semester at Moorpark College. You need to take a mathematics course every semester until you have completed the requirement and you need to complete the English requirement early in your course work!!!!**

Please don't let the fear of mathematics deter you from your dream of being a scientist or mathematician. **Applied calculus (MATH M16A and M16B) and algebra/trigonometry based physics (PHYS M10A+Lab and M10B+Lab)** are often easier courses for many students and are acceptable for some of the majors at some of the transfer institutions. Until I see you in person, enjoy!

**All Information is subject to change and does not replace the need to meet with Danita Redd or one of the other members of the Counseling Faculty..**

Nano2	Nano3
Nano4	Nano

*Above Images Nanotechnology Images*

Helium  
Gif

# Popular Majors in Sciences and Engineering

Image of the helium

atom.

Many other science majors are available than what is listed. Please check the links and make an appointment with Danita Redd

[A-Z Careers by Cornerstone](#)   [A-Z List for Science and Engineering](#)   [Careers and Resources](#)

[Cool Science Careers](#)   [Global List of Science Careers](#)  
[Summer Undergraduate Reserach Fellowships at Cal Tech](#)  
[National Security Agency \(NSA\)](#)  
[NSA's Science Career Fields](#)

## Astronomy/Astrophysics

Astronomers and astrophysicists study the solar system, stars, galaxies, and space using principles of physics and mathematics. Their work adds to the basic scientific knowledge about the nature of the universe and also provides a basis for improvement in such areas as aircraft navigation and satellite communication. They study planets, stars, novae, and colliding gasses between stars in an attempt to find out how they were formed, what they are made of and how they change. They measure light; radio and x-ray emissions from space sources and plot paths for man made satellites and space probes. Some teach. Currently the United States has a shortage of Ph.D. level astronomers.

Sample Lower Division Courses: MATH M25A, M25B, M25C, M31, M35; PHYS M20A+Lab, M20B+Lab, M20C+Lab; Maybe: AST M01+Lab and AST M02

National Average Yearly Salary: \$95, 740.00

[USBLS](#)   [MC Catalog page for Astronomy](#)   [American Astronomical Society \(AAS\)](#)   [Frequently asked questions of the AAS](#)

[Astronomical Society of the Pacific](#)   [NASA](#)

## Biology/Life Sciences

(Biology, Biotechnology, Neuroscience, Physiology, etc.) Life Scientists study the origin, development, anatomy, function, distribution, and other basic principles of plant and animal life. Life scientists may work in research, manufacturing, teaching, and natural resource management, consulting, or a combination of these and some work in the laboratory as well as in the classroom. Some of the disciplines includes anatomy, general biology, biotechnology, botany, cellular, fisheries, genetics, marine biology, microbiology, neuroscience, physical anthropology (medical anthropology), psychobiology (biopsychology or physiological psychology), physiology, wild life conservation, zoology, etc.

Majors that have an option with a biology focus include: Anthropology: (Bio-anthropology, Forensic Science, Medical Anthropology, Physical Anthropology); Psychology: (Biopsychology, Physiopsychology, Physiological Psychology, Psychobiology); [APA Careers in Science](#); [Environmental Science](#)

Sample Lower Division Courses: MATH M25A, M25B; BIOL M02A, M02B, M02C; CHEM M01A, M01B, M07A, M07B;

Physics (The requirement varies and sometimes is taken after transfer. Please see a counselor for more information.

National Average Yearly Salary: \$76, 320.00

USBLS MC Biology Department A-Z Career Links in Biology by Furman University

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## Biotechnology

Biotechnologists use living cells and materials to create pharmaceutical, diagnostic, agricultural, environmental, and other products to benefit society. They also alter genetic information in animals and plants to improve them in some way that benefits people. The science of biotechnology involves the integration of such advanced disciplines as biochemistry, genetics, chemical engineering, process engineering, and computer science.

Courses for the MC Biotechnology Department: CHEM M01A + M01B or M12+M13; BIOL M02A; PHYS M01 or BIOL M02B; MICR M01; MATH M15; BIOT M01A, M01B, M02A, M02B, M02C, M02D, M02E, M80

Courses for Transfer: See Biology

National Average Yearly Salary with an Associate Degree: \$48, 443.00

National Average Salary: See Biology/Life Sciences

USBLS MC Catalog page for Biotechnology Home page of the MC Biotechnology Department

Careers in Biotechnology How to Pursue a Career in Biotechnology

Bic

## Chemistry/Biochemistry

Chemistry is the study the composition of matter and its properties such as density, acidity, size and shape. Chemists carefully describe the properties they study in terms of quantities, with detail on the level of molecules and their component atoms. Chemists carefully measure substance proportions, reaction rates, and other chemical properties. Chemists use this knowledge to learn the composition, and properties of unfamiliar substances, as well as to reproduce and synthesize large quantities of useful naturally occurring substances and create new artificial substances and useful processes. Chemists may specialize in any number of subdisciplines of chemistry. Materials scientists and metallurgists share much of the same education and skills with chemists. Chemical engineers are concerned with the physical processes necessary to carry out industrial reactions (heating, cooling, mixing, diffusion etc) and to separate and purify the products, and work with industrial chemists on the development of new processes.

Sample Lower Division Courses: MATH M25A, M25B, M25C; CHEM M01A, M01B, M07A, M07B; PHYS M20A, M20B, M20 C; Biochemistry Majors add: BIOL M02A and M02C

National Average Salary: \$59, 870.00

USBLS MC Catalog page for Chemistry American Chemical Society: A - Z Careers in Chemistry

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## Earth Sciences

Earth Sciences are also known as geoscience and is an all-embracing term for the sciences related to the planet Earth. There are four major disciplines in earth sciences, namely geography, geology, geophysics and geodesy. These majors use the disciplines of physics, chemistry, biology, chronology and mathematics to build a quantitative understanding of the principal areas or spheres of the Earth system. Atmospheric Science, Environmental Science, Meteorology, Paleontology, Water Science/Hydrology, etc. are often found in earth sciences directories.

Sample Lower Division Courses: MATH M25A, M25B, M25C; CHEM M01A, M01B; PHYS M10A, M20A, M20B, M20C

National Average Salary: \$77, 150.00 - \$88, 882.00

USBLS Explore Careers in the Earth Sciences

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## Engineering

Engineering is the discipline, art and profession of acquiring and applying technical, scientific and mathematical knowledge to design and implement materials, structures, machines, devices, systems, and processes that safely realize a desired objective or inventions. The American Engineers' Council for Professional Development (ECPD) defined engineering as "the creative application of scientific principles to design or develop structures, machines, apparatus, or manufacturing processes, or works utilizing them singly or in combination; or to construct or operate the same with full cognizance of their design; or to forecast their behavior under specific operating conditions; all as respects an intended function, economics of operation and safety to life and property." In 1980 the ECPD evolved into the Accreditation Board for Engineering and Technology (ABET) to more accurately describe its emphasis on accreditation.

Some Engineering Disciplines: Aerospace, Agricultural, Biomedical, Ceramics, Chemical, Civil, Computer Hardware, Electrical and Electronics, Environmental, Health and Safety, Industrial, Marine, Mining, Navel, Nuclear, Petroleum

Sample Lower Division Courses: MATH M25A, M25B, M25C, M31, M35; PHYS M20A, M20A, M20C; CHEM M01A (other courses could included Math M21, M35; CHEM M01B; CS M10B; ENGR M04, M12, M16, M20

National Average Salary: \$74, 144.00 - \$107, 546.00

USBLS Accreditation Board for Engineering and Technology The Most Important Engineering Challenge?

## Environmental Science

Environmental Science is an interdisciplinary field that involves both the physical sciences (physics, chemistry, biology, geology, geography, resource technology and engineering) and the social sciences (resource management and conservation, demography, economics, politics and ethics). It encompasses the surrounding conditions that affect man and other organisms. Natural and human resources are interdependent and the use or misuse of one affects the other. Please meet with social sciences counselor if your interest falls in that category. Meet with me if your interest in the field of the environment is in science or engineering.

Sample Lower Division Courses: MATH M25A, M25B, M25C; PHYS M10A, M20A, M20B, M20C; CHEM M01A, CHEM M01B; ENSC M01+Lab, ENSC M02; Depending on focus BIOL M02A, M02B

**National Average Salary: \$78,000.00**

USBLS/Environmentalist & Hydrologists    MC Catalog page for Environmental Science    Explore  
Careers in the Environment/Ecology

Sustainability Educational Opportunities at Moorpark College: Link Under Construction

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**Forensic Science**

Forensic Scientists do work done for police and other law enforcement departments. They collect and test physical evidence, such as fiber, tissue, hair, body fluids and glass, that may be used to solve a crime. Forensic scientists need at least a Bachelor of Science degree in science, Forensic Science or Criminology in order to be eligible for employment. Graduate level degrees are encouraged by most employers.

National Average Salary (depends on level of education): \$50,000 - \$125,000

USBLS    All About Forensic Science Careers    American Academy For Forensic Science  
Careers in Forensic Science by The American Society for Clinical Lab Science  
Forensic Science: A Career in the Crime Lab    Guidance Notes/Great Advice    Pay Scale Report on  
Forensic Scientists  
The Forensic Scientist as Described by Criminal Justice USA

**Geography and Geology, what is the difference between the two?**

The main difference between geography and geology is that geography is mostly dealing with physical overall shapes of the land. Geology is a science that is interested in how the land got into the shape it did. Geology is mostly about what the ground is made up of from a natural perspective. What kind of rocks it contains and how those rocks or layers of rocks got there. Geography and Physical Geography is mostly dealing with mapping the extent of landforms, how far rivers are, how long mountain ranges are, how long the coast line is. This is often from the perspective of people.

**Geology**

Geologists study the origin, history, composition, and structure of the earth, both for scientific knowledge and for practical purposes such as locating oil, minerals, and other raw materials, and compiling architectural safety reports, maps, and diagrams. Geologists first locate and obtain physical data such as mineral or fossil specimens. Next, they use knowledge of Chemistry, Physics, Math, and Biology, usually in a well-equipped laboratory, to analyze the data and specimens. Finally, they compile all the knowledge they have gathered into reports for use by other scientists and engineers. Specialties: Engineering, Space, Geothermal, Marine, Mineralogy, Mining, and Petroleum.

Sample Lower Division Courses: MATH M25A, M25B, M25C; CHEM M01A, M01B; PHYS M20A,  
M20B, M20C; GEOL M02+M02Lab  
National Average Salary: \$80,000.00

USBLS    MC Catalog page for Geology    Explore Careers in Geology    Explore Careers in the  
Geosciences    Geology.com    meteo

## Physical Geography

Also known as geosystems or physiography, geography is that branch of science which deals with the study of processes and patterns in the natural environment like atmosphere, biosphere and geosphere and is one of the three major subfields of geography, as opposed to the cultural or built environment, the domain of human geograph. Within the body of physical geography, the Earth is often split either into several sphere or environments, the main spheres being the atmosphere, biosphere, cryosphere, geosphere, hydrosphere, lithosphere and pedosphere. Research in physical geography is often interdisciplinary and uses a methodology named the systems approach.

Sample Lower Division Courses: GEOG M01+ M01Lab, GEOG M02  
National Average Salary: \$80, 000.00

USBLIS    MC Catalog page for Geography    The American Geographical Society    American Geographical Society    National Geographical Society

## Mathematics

Mathematics is the study the science and study of quantity, structure, space and, change. Mathematicians seek out patterns, formulate new conjectures, and establish truth by rigorous deduction from appropriately chosen axioms and definitions. There is debate over whether mathematical objects such as numbers and points exist naturally or are human creations. The mathematician Benjamin Peirce called mathematics "the science that draws necessary conclusions". Albert Einstein, on the other hand, stated that "as far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality." Through the use of abstraction and logical reasoning, mathematics evolved from counting, calculation, measurement, and the systematic study of the shapes and motions of physical objects. Practical mathematics has been a human activity for as far back as written records exist. Rigorous arguments first appeared in Greek mathematics, most notably in Euclid's Elements. Mathematics continued to develop, in fitful bursts, until the Renaissance, when mathematical innovations interacted with new scientific discoveries, leading to an acceleration in research that continues to the present day. Today, mathematics is used throughout the world as an essential tool in many fields, including natural science, engineering, medicine, and the social science. Applied mathematics, the branch of mathematics concerned with application of mathematical knowledge to other fields, inspires and makes use of new mathematical discoveries and sometimes leads to the development of entirely new disciplines. Mathematicians also engage in pure mathematics, or mathematics for its own sake, without having any application in mind, although practical applications for what began as pure mathematics are often discovered later.

Sample Lower Division Courses: Math M25A, M25B, M25C, M31, M35; CS M10A; PHYS M10A, PHYS M20A+Lab  
National Average Salary: \$90, 000.00

MC Catalog page for Mathematics    Cool Math Careers    Careers in Mathematics, an Essay by the Association for Women in Mathematics  
Mathematics Careers/Mathematics Association of America    Student Membership in the Mathematics Association of America

## Nanotechnology

Nanotechnologists study of the control of matter on an atomic and molecular scale. Generally nanotechnology deals with structures of the size 100 nanometers or smaller, and involves developing materials or devices within that size. Nanotechnology is very diverse, ranging from extensions of conventional device physics to completely new approaches based upon molecular self-assembly, from developing new materials with dimensions on the nanoscale to investigating whether we can directly control matter on the atomic scale. Nanotechnology has the

potential to create many new materials and devices with a vast range of applications, such as in medicine, electronics and energy production. (Could be studied through such programs as Biology Bioinformatics, biotechnology, chemistry physics.

Sample Lower Division Courses: See Biology, Chemistry or Physics  
National Average Salary: 90, 000.00

USBLS/Scientific Research and Development    Nanotechnology Careers    Foresight Institute and  
Nanotechnology Careers

List of Nanotechnology Applications - Wikipedia Link

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### Physics

Physics is the study of matter and its motion through spacetime and all that derives from these, such as energy and force. More broadly, it is the general analysis of nature, conducted in order to understand how the world and universe behave. Physics is one of the oldest academic disciplines, perhaps the oldest through its inclusion of astronomy. Over the last two millennia, physics had been considered synonymous with philosophy, chemistry, and certain branches of mathematics and biology, but during the Scientific Revolution in the 16th century, it emerged to become a unique modern science in its own right. However, in some subject areas such as in mathematical physics and quantum chemistry, the boundaries of physics remain difficult to distinguish. Physics is both significant and influential, in part because advances in its understanding have often translated into new technologies, but also because new ideas in physics often resonate with the other sciences, mathematics and philosophy. For example, advances in the understanding of electromagnetism or nuclear physics led directly to the development of new products which have dramatically transformed modern-day society (e.g., television, computers, and domestic appliances); advances in thermodynamics led to the development of motorized transport; and advances in mechanics inspired the development of calculus.

Sample Lower Division Courses: MATH M25A, M25B, M25C, M35; PHYS M10A, M20A+Lab,  
M20B+Lab, M20C+Lab; CHEM M01A; often MATH M31 and CHEM M01B

National Average Salary: \$194,

240.00

USBLS

MC Catalog Page for Physics    Concentrations in Physics/Page of Links    The American Institute of

Physics    Jet Propulsion Laboratory @ Cal Tech