## Lebanon Collese



The Bulletin: 1983-1985

## Lebanon Valley College in Brief

Lebanon Valley College is a co-ed, church related, liberal arts college, founded in 1866, located in the town of Annville, PA, near Hershey.
Enrollment is 950 students with an equal distribution between men and women.

## The student faculty ratio is $11: 1$

Degrees offered include Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry and Bachelor of Science in Medical Technology.
Majors offered include accounting, actuarial science, biochemistry, biology, business administration, chemistry, computer science, economics, elementary education, English, foreign languages, French, German, history, individualized major, international business, mathematics, medical technology, music, music education, nuclear medicine technology, nursing, operations research, philosophy, physics, political science, psychology, religion, sacred music, social sciences, social service, sociology, Spanish.
Pre-professional specializations include dentistry, engineering, forestry, law, medicine, ministry, optometry, osteopathy, pharmacy, podiatry and veterinary medicine.
Facilities include an 80 -acre campus
with 33 buildings-the administration building, chapel, college center, 9 dormitories of varying size, guest house and faculty lounge, gymnasium, library, music center, the President's home, and numerous smaller buildings housing administrative and faculty offices. The newly-completed $\$ 4.8$ million Garber Science Center was dedicated and occupied early in 1983.
Athletic competition, both intramural and intercollegiate, is enjoyed by a large percentage of Lebanon Valley College students. Intercollegiate sports include baseball, basketball, cross-country, football, golf, lacrosse, soccer, tennis, track and wrestling for men; basketball, field hockey and lacrosse for women.
Campus organizations cater to the interests of all students. Categories of student organizations include: departmental clubs; music groups; dramatic troupes; publications; recognition groups; religious organizations, service and social fraternities and sororities; special interest groups and student government.

Communications: THE QUAD (Student newspaper); THE QUITTIE (Yearbook); WLVC (Radio station). Departmental Clubs: Chemistry (American Chemical Society Affiliate); Education (Childhood Education

Club); Mathematics (Industrial Mathematics Society Affiliate); Modern Languages (Spanish Club); Music (Music Educators National Confer-ence-Student Chapter).
Dramatics: Alpha Psi Omega; Wig and Buckle.
Music Groups: Chapel Choir, College Chorus; Concert Choir; Guild Student Group; Symphonic Band; Symphony Orchestra; Wind Ensemble.
Recognition groups: Phi Alpha Epsilon; Beta Beta Beta; Pi Gamma Mu; Psi Chi.
Religious organizations: Delta Tau Chi, Fellowship of Christian Athletes; PROJECT.
Service groups: Alpha Phi Omega (national); Gamma Sigma Sigma (national).
Social groups: Delta Lambda Sigma; Kappa Lambda Nu; Kappa Lambda Sigma; Knights of the Valley; Phi Lambda Sigma.
Special interest groups: Art Club; Chess Club; Ice Hockey Club; International Relations Club; Jazz Band; Photography Club; Ski Club.
Student government: Student Council; Student Judicial Board; Judicial Appeals Board.

In order to provide quality education to its students, Lebanon Valley College relies on voluntary gifts-small as well as largeeither unrestricted or restricted to specific purposes. Please contact the Development Office for personalized assistance and guidance in making a gift to the college.
Lebanon Valley College reserves the right to change any provisions or requirements at any time within the student's term of residence.
Lebanon Valley College does not discriminate on the basis of race, color, national and ethnic origin, sex, age, religion or handicap.
The Lebanon Valley College catalog is for information only and does not constitute a contract between the student and the college. The college reserves the right to change the provisions of this catalog, including course offerings, fees, and listings in the calendar, administration, and faculty sections.
The Bulletin is published quarterly, USPS Number 308 480. Second Class postage paid at Annville, PA 17003. Publications Office, Lebanon Valley College, Annville, PA 17003.


## History of the College

In 1866 the East Pennsylvania Conference of the Church of the United Brethren in Christ sought to establish an institution of higher learning within its boundaries. Site selection had been narrowed to two towns -Annville and Lebanon. The town making the best financial offer would become the future site of the college. Thus, five visionary citizens of Annville purchased the red brick, Annville Academy on Main Street for the sum of $\$ 4,500$ and presented it to the church conference "on the condition that they would establish and maintain forever an institution of learning of high grade." That institution became Lebanon Valley College and remains, today, more than 114 years later, true to its founding fathers' dream, "an institution of learning of high grade."

Over the years, Lebanon Valley College has progressed from a simple one building complex on a few acres of land to an 80 -acre campus with 33 buildings ranging in age from 1900 to 1975, and assets totaling more than $\$ 20$ million. College landmarks bear the names of presidents, benefactors, and influential faculty and staff-Bender, Bollinger, Blair, Faust, Fencil, Funkhouser, Garber, Green, Gossard, Hammond, Kreider, Keister, Lynch, Miller, Mund and Vickroy - men and women who believed in the dream of 1866, and who committed themselves to its fulfillment.

Since 1965, the majority of campus additions have taken place as part of a long-range campus improvement plan. They include: Hammond and Keister Halls (dormitories for men) in 1965; Miller Chapel in 1966; Funkhouser Hall (dormitory for men) in 1969; the Allan W. Mund College Center in 1971; Silver Hall (dormitory for women) in 1972; Blair Music Center in 1974 and Bollinger Plaza (a new campus entrance on Main Street) in 1976.

Most recently Lebanon Valley College dedicated the $\$ 4.8$ million Garber Science Center (shown in insert at right) as part of a $\$ 10$ million fund raising campaign. As history repeats itself, Lebanon Valley College will realize other goals, while remaining "an institution of learning of high grade," committed to perpetuating the dream of 1866.


Located only minutes away from Hershey and Lebanon and within an hour's drive of Reading, Lancaster and Harrisburg, Lebanon Valley College is ideally situated to appeal to a variety of tastes. The college dominates the center of Annville-which boasts its own historic districtand enjoys the serenity and friendliness of a small rural community while at the same time deriving the social and cultural benefits of the nearby urban centers.
Churches, banks, doctors and various essential commercial establishments are all close at hand; and hospitals and more specialized business enterprises are easily and quickly accessible. Excellent restaurants, motels and entertainment facilities are also available in this popular resort area at the edge of the Blue Mountains of Pennsylvania: Lancaster, center of the quaint Pennsylvania Dutch culture; Hershey, home of the Hershey Bears, Chocolate World and the famous theme park; and the noted art and music center at Mt. Gretna are just a few of the local attractions. And we are only two hours away from the historic City of Philadelphia, well known for its museums, art galleries, theaters and department stores, as well as the famed Phillies and Philadelphia Symphony.


The town of Annville (population 6,000 ), the home of Lebanon Valley College, is located at the intersection of Route 934 (N-S) and Route 422 (E-W). The
 college is also surrounded by several major access routes including the Pennsylvania Turnpike (76) and Interstate 81 with nearby connections to Interstates 80 and 83 .

## What Is Lebanon Valley College?

Over the years, Lebanon Valley College has gained a fine reputation as a co-educational, church related, liberal arts institution.
Since our founding in 1866, Lebanon Valley College has been church related, and is today affiliated with the United Methodist Church. Throughout our 115 years of existence, we have constantly examined our reasons for being in the business of education. Today, as much as ever, we at Lebanon Valley College have chosen to maintain an educational institution which is academically strong, guided by the Christian faith and small enough to give personal attention to all students.

Consequently, there are only 950 full-time students on our campus, and when you stack that up against our 75 full-time and 30 part-time teaching faculty, that does mean personal attention. In many cases it means contact on a first name basis. But personal attention isn't the only thing we're interested in at Lebanon Valley College.

We are dedicated to providing you with a quality liberal arts education tempered with enough practical experience to help you enter the job market at graduation time. If you come to Lebanon Valley College you'll find that there's plenty of hard work involved in pursuing a college career, but that we try to offer a variety of social, cultural and personal experiences to make your four-year college experience a well-rounded one.

## Who Is Lebanon Valley College?

At Lebanon Valley College you will meet a number of interesting and thought provoking people, whether they are students, members of the administrative staff or faculty members.
Our 950 students represent 15 states and 5 foreign countries. There is an equal distribution between men and women. Approximately $66^{\circ}$ of our students come from Pennsylvania and $19^{\sigma}$ from New Jersey. Approximately 820 of the students live on campus while 130 are commuters.
Our professional administrative staff keeps the college's business affairs running smoothly while offering such student services as career planning and placement, publicity and health care.
Our professors represent a unique cross section of individuals. Of the associate and full professors $85^{\sigma}$ hold an earned doctorate degree. Our faculty members come from such schools as the University of Pennsylvania, Columbia University, the Juilliard School of Music, Yale University and Boston University, to name just a few. Our faculty also represent more than 50 undergraduate institutions, while representing nearly 60 postgraduate institutions. This broad base of faculty education helps to insure that the


In addition to having some of the nation's finest schools as background, our faculty are intensely interested in one thing - teaching. Because of our extremely low student to faculty ratio ( 11 to 1), we are able to claim an average class size of 18 students. While some lower level freshman and introductory courses are of the larger lecture type, numerous upper level courses are of the informal seminar type, often with class size of 10 or fewer. And we find that this allows for maximum teaching effectiveness.


Since on the average a professor spends only 11 hours a week in the classroom, he has sufficient time to spend in class preparation, research and providing out-of-classroom help for those students who need help and seek it.

Many of our professors work on field-related projects in their spare time and add yet another dimension to their classroom teach-ing-first hand experience. One of our sociology professors is the coordinator of a Women's Crisis Intervention Center in a local community. A professor in the English department has written two books, both published in the prestigious Twayne United States Author Series. A husband and wife team in biology bring additional outside research findings to their classes. She has discovered two previously unknown plants in the Michoacan mountain province in Southern Mexico. He continues original research in the field of carnivorous plants. And the list of faculty accomplishments goes on and on.

Our students represent a diverse cross section of individuals. Our administrative staff members are dedicated to improving the operation of the college. And our faculty are primarily interested in teaching. At Lebanon Valley College, students, staff and faculty work together to create an atmosphere that fosters enlivened curiosity, self-discipline, and excitement about ideas. All are characteristic, we feel, of an educated individual.

## Campus Life

When you come to Lebanon Valley College the first thing that you may notice is that it is a very friendly place. Not only will many of your professors know you on a first name basis, you will also develop many first name relationships with other students.

There is no imposed segregation between upper and underclassmen at the college. As a freshman you may live on the same floor as upperclassmen and you may notice a number of upperclassmen in some of the courses that you select.

When you're not in class or studying, your free time is your own. Many students elect to become involved in numerous campus organizations, choosing a variety of extracurricular experiences. Other students are more selective and choose to devote considerable time to one or two campus organizations. And the campus organizations that you can choose from are very diverse.

For students in the academic departments of biology, chemistry, elementary education and mathematics there are departmental clubs. There are several special interest groups including a chess club, an international relations club, a photography club, and a ski club. There is a service fraternity and sorority on campus as well as five social fraternities and sororities.

Another area of intense student interest is in dramatics and musical productions. Each year the Wig and Buckle Society presents two performances-a dramatic performance and musical production. Alpha Psi Omega, the dramatics fraternity, has presented a series of one-act-plays for Parent's Weekend
 for the past several years. Sinfonia and SAI, the men's and women's music fraternities, also present a musical each year. All of the Lebanon Valley College productions take place in the College Center Little Theater entirely under student supervision. If you have a flair for acting, producing or like to work behind the scene of a stage production, there is plenty of opportunity to do so. Recent productions have included The Glass Menagerie, Applause, Little Mary Sunshine, The Comedy of Errors and Carnival.

If you're into music, there are nine musical organizations on campus, and you don't need to be a music major to be a member. These organizations include the unique All Girl Band, the Concert Choir and Chamber Orchestra that goes on tour each Spring, and the LVC Jazz Band. Other more traditional music groups include the Marching Band, the College Chorus and the Symphony Orchestra.

Another important part of your student life at Lebanon Valley College could include religious activities. The college employs a full-time chaplain who coordinates several
 interfaith activities and who is available for counseling. Each week a chapel convocation program presents outstanding lecturers, both sacred and secular, who speak on a variety of thought provoking subjects. Guest artists and performers are also part of the chapel program series. Each year opening semester convocations have presented such well-known speakers as Na tional Review publisher William Rusher, political activist, Julian Bond, former CIA director, William Colby, and China expert, Ross Terrill. A Religious Emphasis Day, held each spring, presents such speakers as Dr. Martin Luther King, Sr., Ruth Carter Stapleton, Colonel James Irwin, and Dr. Ralph Abernathy.

In addition to participating in on-campus religious activities, students are welcomed by community congregations. Our students represent more than 30 different religious denominations. Some students serve in such capacities as organists, choir directors,- guest musicians, Sunday School teachers and supply ministers in local churches.

Athletics could also be an important part of your life on the Lebanon Valley campus. We offer a wide range of programs in intramural and intercollegiate athletics. Lebanon Valley College is a member of Division III of the Middle Atlantic Conference in athletic competition. For men the college offers intercollegiate baseball, basketball, crosscountry, football, golf, lacrosse, soccer, tennis, track and wrestling. For women the college offers intercollegiate basketball, field hockey and lacrosse. Additional sports offered in intramural athletics include weightlifting, volleyball, paddleball, squash, ping pong, softball, swimming and billiards for men, and tennis, volleyball, paddleball, ping pong and softball for women.


Other student activities at Lebanon Valley College revolve around the College Center complex. The facility includes offices for the campus radio station (WLVC), the yearbook, and the Spring Arts Festival. The center also includes the snack shop, a game room, the college bookstore, a music listening lounge, the dining halls, the little theater and a television lounge.

The College Center has a spacious entrance lobby used for monthly art exhibits featuring the works of artists from central Pennsylvania. You may also appreciate the annual Spring Arts Festival held on the campus the last weekend of April. This event, conceived by a student more than ten years ago, has blossomed into one of the largest arts festivals of its kind in the area. Thousands visit the campus to enjoy outdoor art exhibits with arts and crafts for sale, a juried arts and crafts exhibition, numerous performing groups, as well as theme exhibits and performances during the four-day affair. The festival is directed by

students and a committee of community volunteers.

In student government, Lebanon Valley College has three organizations, all with student representation. The Student Council serves as a clearing house for recommendations coming from students, in addition to coordinating and financing student activities such as concerts, symposiums and movie series. The Student Judicial Board is responsible for investigating alleged infractions of the student conduct code, for hearing cases, and for recommending appropriate discipline in the cases of conduct code violations. The Judicial Appeals Board, in turn, hears appeals from students on decisions handed down by the Judicial Board or the Dean of Students.


You may have some questions about dormitory life. All of our dormitories have been built since 1957. There are three large dormitories for men and three for women. There are also several small housing units available. The majority of our rooms are double which means that you will probably have a roommate. If you are a freshman you may specify a roommate from your hometown or other acquaintance. If you don't have a specific roommate in mind we'll try to match you with someone of your own lifestyle. Each year, upperclassmen are allowed to sign up for next year's room and roommate. Freshmen are not segregated from upperclassmen in housing arrangements.

Each of the new dormitories has one or more study lounges, a television lounge, student mailboxes, food and drink concessions, and laundry facilities. None of the dorms are coeducational but there is an intervisitation policy for all students.

Recognizing the laws of Pennsylvania and our founding's background, the college prohibits the possession and use of both alcohol and illegal drugs on the campus.

The primary concern of the college regarding social life is to provide an atmosphere which stimulates scholarship and personal growth. We realize that recreation is an important part of college life, but after all, the primary reason that most people come to college is to receive an education. We attempt to provide you with the privacy and peace necessary for study, and to encourage you to take responsibility for your behavior so that your fellow student's right to privacy, peace and property are not abused.

## Academic Life

Since you are interested in a liberal arts college you probably already realize that you will need to take a number of courses of a general nature in addition to those courses that relate specifically to your major. These general requirements take up about one third of your coursework during your four years at LVC and are selected, by you, from a number of specified courses. These general requirements fall under the following headings: Writing Skills; Religion or Philosophy; Natural Science; Individual and Group Behavior; Language; Arts and Letters; and Physical Education.

In addition to fulfilling the general requirements, you will also need to complete the required number of hours and courses for your major. These requirements vary from department to department, but you will supplement your major with courses of your own choice and consistent with your own interests.

The flexibility of the Lebanon Valley College curriculum is especially helpful if you enroll without a particular vocational or educational goal in mind. During the freshman and sophomore years you can choose from courses offered by any department of the college while fulfilling general requirements. The two-year period is usually sufficient for a student to choose a maior.

If one of our 31 majors doesn't suit your needs, you may design your own major with the help of two advisers. Some students major in two fields.

You'll also find that you will be eligible for one of four degrees offered by Lebanon Valley College. They include the Bachelor of Arts degree, the Bachelor of Science degree, the Bachelor of Science in Medical Technology degree, and the Bachelor of Science in Chemistry degree (American Chemical Society certified). Your major, with the exception of the individualized major, will determine the type of degree that you receive at graduation. The individualized major's degree is determined by the specific areas of concentration.

At Lebanon Valley College you may take advantage of a number of special programs:
Beginning in the sophomore year you may elect to take up to two courses per semester on a pass/fail basis, with a total of six courses permitted pass/fail in the last three years.

The college honors program provides an opportunity for superior students to develop and challenge their intellectual abilities. For students interested in doing special study on their own, each major department offers the independent study program.

In addition to attending traditional courses on the college campus, you may also participate, for credit, in off-campus educational opportunities, usually during the junior and senior years. These opportunities include the Germantown Metropolitan semester, the Junior Year Abroad, the Marine Biology summer study program and the Washington semester program. You may also participate in internship programs which provide majorrelated work experience with various community businesses and service organizations.

For graduation you will need to have completed a minimum of 120 total hours of


credit (including general requirements, requirements for the major and elective courses) plus two courses in physical education.

If you are transferring to Lebanon Valley College you will need to complete a minimum of 30 hours of work on the Lebanon Valley campus in order to qualify for graduation. Each transfer student's credits are considered on an individual basis.

Students holding an associate degree from a regionally accredited two-year college will be admitted with full acceptance of course work, providing the work is compatible with the liberal arts curriculum at Lebanon Valley College.

Although there are a number of requirements for all students, the thing to remember is that they are of a general nature. When it comes to making a choice of courses within a particular area, the decision is yours. The requirements within your major are also designed to give you a basic background of information within a specific field, augmented by elective courses of interest to you and consistent with your future vocational goals.

## We Offer You Help

Regarding the many decisions that you will make, don't think that once you get to college we'll abandon you. Lebanon Valley College's dual advising system is designed to give a new student a good start in college life. You will be assigned an academic adviser who will help you select a course of study suited to your specific needs. A second adviser, assigned to you during your first year at the college, will try to help you with any adjustment problem that you might encounter-or he or she may just turn out to be a friend that you like to visit when you have a few minutes.

Even after you have started classes, our concern for you doesn't stop. If you need help you can get it. Our faculty, who are primarily teaching oriented, spend considerable time with students. This is one of the advantages of our low student to faculty ratio. During class, professors spend sufficient time in answering questions as well as presenting new material. After class you don't have to contend with graduate students for a professor's time, nor do you have to seek a teaching assistant for help. Our professors' schedules are flexible enough that if you need extra help you can get it.

Some departments offer tutorial help, and the college recently implemented a reading and study skills program. Students may enlist the services of a Student Writing Center which offers individualized instruction in writing to any Lebanon Valley College student. This informal, unpressured and personal learning environment allows tutor and student to work together to improve a student's writing skills.

Throughout your four years at Lebanon Valley College you will be asked to make a number of decisions regarding your education. For many students the decisions will be clear and simple. For others, decisions are best made with an adviser's guidance. We are mainly concerned, however, that you are an active participant in choosing and creating a program of study that suits your individual needs.

It is possible at Lebanon Valley College.


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## Correspondence Directory

| TO FACILITATE PROMPT ATTENTION, INQURIES SHOULD BE ADDRESSED AS INDICATED BELOW: |  |
| :---: | :---: |
| Matters of General College Interest | President |
| Academic Program | Vice President and Dean of the Faculty |
| Admissions | Dean of Admissions |
| Alumni Interests | Director of Alumni Services |
| Business Matters, Expenses | Vice President and Controller |
| Campus Conferences | Coordinator of Conferences |
| Development and Bequests | . Director of Development |
| Evening School and Summer Session | Director of Continuing Education |
| Financial Aid to Students | . Financial Aid Officer |
| Teacher Placement | Director of Teacher Placement |
| Business and Industrial Placement | Director of Placement |
| Publications | . Director of Publications |
| Publicity | Director of Information Services |
| Religious Activities | Chaplain |
| Scheduling of Events | or of Food Services and Conferences |
| Student Interests | Dean of Students |
| Teacher Certification | Registrar |
| Transcripts, Academic Reports | Registrar |
| Weekend College | Director of Continuing Education |

## DIRECT ALL MAIL AND/OR TELEPHONE CALLS TO:

Lebanon Valley College
Annville, Pennsylvania 17003
Area Code 717 Local Number 867-4411

## REGULAR OFFICE HOURS FOR TRANSACTING BUSINESS:

College office hours are from 8:30 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m. Monday through Friday. Members of the staff are available at other times if appointments are made in advance.

## Academic Calendar 1983-84

Aug.

27 Saturday, 12:00 noon.
27-29 Saturday through Monday.
28 Sunday, 12:00 noon
29 Monday, 8:30 a.m.
29 Monday, 1:00 p.m.
29 Monday, 7:00 p.m.
30 Tuesday, 11:00 a.m.
Sept.
Nov. 8-17 Tuesday through Thursday
18 Friday, 5:00 p.m.
28 Monday, 8:00 a.m
9 Friday 5:00 p.m.
10-12 Saturday through Monday
12-17 Monday, 7:00 p.m.. through Saturday 1:00 p.m.

17 Saturday, 1:00 p.m.

Residence halls open for new students Orientation for new students Residence halls open for other students Registration by new students Registration by upperclassmen Classes begin
Opening College Convocation
Homecoming Day
Mid-Semester grades due
Board of Trustees meeting
Pre-Registration for second semester
Thanksgiving vacation begins
Classes resume
First semester classes end
Reading period
First semester examinations
First semester ends

## 1984 <br> Second Semester

## Sunday, 12:00 noon.

Sunday. 3:00 p.m.
Monday, 8:00 a.m.
Monday, 7:00 p.m.
Saturday.

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21 \text { Tuesday, 11:00 a.m. }
$$

7-16 Wednesday through Friday
9 Friday. 5:00 p.m.
14 Wednesday, 8:00 a.m.
18 Sunday, 8:00 p.m.
20 Tuesday.
25 Sunday, $3: 00$ p.m.

## Apr.



8 Sunday, 3:00 p.m.

Ionday through Friday, 1:00 p.m.
11 Friday, 1:00 p.m.
11 Friday

## Saturday

Sunday, 9:00 a.m.
Sunday, 11:00 a.m

Residence halls open
Winter Commencement
Registration
Classes begin
Board of Trustees meeting
Founders' Day
Concert Choir tour
Spring vacation begins
Classes resume
Concert Choir Campus Concert
Phi Epsilon Day
Spring Music Festival, Wind Ensemble
Pre-Registration by current students for last semester,
1984-1985, and 1984 summer school
Spring Music Festival, Symphonic Band
Orientation I for new degree students
Spring Music Festival, College Chorus and Symphony
Orchestra
Easter vacation begins
Classes resume
Fourteenth Annual Spring Arts Festival
Awards and Recognition Convocation
Second semester classes end (Friday day classes meet;
Thursday evening classes meet)
Reading period
Second semester examinations
Second semester ends
Board of Trustees meeting
Orientation II for new degree students
Baccalaureate Service
115th Annual Commencement

## Academic Calendar 1984-85

| Aug. | 25 | Saturday, 12:00 noon. |
| :---: | :---: | :---: |
|  | 25-27 | Saturday through Monday. |
|  | 26 | Sunday, 12:00 noon. |
|  | 27 | Monday, 8:30 a.m. |
|  | 27 | Monday, 1:00 p.m. |
|  | 27 | Monday, 7:00 p.m. |
|  | 28 | Tuesday, 11:00 a.m. |
| Oct. | 13 | Saturday. |
|  | 15 | Monday. |
|  | 20 | Saturday |
| Nov. | 6-15 | Tuesday through Thursday |
|  | 16 | Friday, 5:00 p.m. . . . . . . |
|  | 26 | Monday, 8:00 p.m. |
| Dec. | 7 | Friday, 5:00 p.m. |
|  | 8-10 | Saturday through Monday. |
|  | 10-15 | Monday, 7:00 p.m., through Saturday, 1:00 |
|  |  | p.m. |
|  | 15 | Saturday, 1:00 p.m. |



|  | 14 | Sunday. 3:00 p.m. |
| :---: | :---: | :---: |
|  | 20 | Saturday. |
|  | 21 | Sunday, 3:00 p.m. |
|  | 26-28 | Friday through Sund |
|  | 30 | Tuesday, 11:00 a.m. |
| May | 2 | Thursday, 9:30 p.m. |


| 3-5 | Friday through Sunday . .................... |
| ---: | :--- |
| 6-10 | Monday through Friday, 1:00 p.m. . . . . . . . . . . . . . . . |

Friday, 1:00 p.m. . . . . . . . . . . . . . . . . . . . . . . . . . .
10
10
11 Saturday
12 Sunday, 9:00 a.m.
12 Sunday, 11:00 a.m
Residence halls open
Winter Commencement
Registration
Classes begin
Board of Trustees meeting
Founders' Day
Concert Choir tour
Spring vacation begins
Classes resume
Concert Choir Campus Concert
Phi Epsilon Day
Spring Music Festival, Wind Ensemble
Easter vacation begins
Classes resume
Pre-Registration by current students for 1 st semester,
1985-1986, and 1985 summer school
Spring Music Festival, Symphonic Band
Orientation I for new degree students
Spring Music Festival, College Chorus and Symphony
Orchestra
Fifteenth Annual Spring Arts Festival
Awards and Recognition Convocation
Second semester classes end (Friday day classes meet:
Thursday evening classes meet)
Reading period
Second semester examinations
Second semester ends
Board of Trustees meeting
Orientation II for new degree students
Baccalaureate Service
116th Annual Commencement

## 1985 Second Semester



## General Information

## Statement of Purpose

Lebanon Valley College affirms its Christian origins by maintaining affiliation with the United Methodist Church and by recognizing the Christian faith as the perspective for its policies. Both the Christian spirit, which encourages the unhampered search for truth, and the academic program, which gives form to the search for truth, combine to generate free and responsible inquiry by students and faculty.

In accordance with the purposes of its founders, Lebanon Valley College seeks to provide an atmosphere in which the student can respond creatively to the contemporary world. Each person is encouraged (1) to develop a genuine concern for cooperative living and community service; (2) to attain a heightened sense of moral and spiritual values through a deepened awareness of how people have thought of themselves in relation to nature, to society, and to God; (3) to appreciate the close and unmistakable relationship among rational thought. creative imagination, and moral commitment: and (4) to deal candidly and intelligently with the past, the present, and the future and their inter relationship.

The programs of the College are designed to provide a demanding as well as a rewarding encounter with the means necessary to achieve the discovery of self and society: consideration of humanity's most significant ideas and accomplishments: development of logical thought and clear communication; practice in precise analysis and effective performance. The academic, social, religious, and aesthetic experiences blend to create the atmosphere of the College in a way that fosters enlivened curiosity, discipline of self, and excitement about ideas that are the hallmark of the educated individual.

Lebanon Valley College, with approximately one thousand students and a low studentfaculty ratio, in giving life to the concept of liberal arts as expressed in the preceding paragraphs has chosen to maintain an educational institution which is academically strong, guided by the Christian faith, and small enough to give personal attention to all students.

Adopted February 1, 1975<br>Lebanon Valley College Board of Trustees

Lebanon Valley College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Lebanon Valley College is also accredited by the following bodies: Department of Education of Pennsylvania; National Association of Schools of Music; American Chemical Society.
Lebanon Valley College is on the approved list of the Regents of the State University of New York and the American Association of University Women. Lebanon Valley College is a member of the follouing bod-
ies: College Entrance Examination Board; Central Pennsylvania Field Hockey Association; College Scholarship Service; Eastern College Alhletic Conference; Middle Atlantic States Collegiate Athietic Conference; National Association of Independent Colleges and Universities; National Collegiale Athletic Association; Penn-Mar Athlelic Conference; Pennsylvania Association of Colleges and Universilies; Pennsylvania Foundation for Independent Colleges.

Affiliation and
Governance

Athletics and Recreation

Lebanon Valley College is affiliated with the United Methodist Church. Control of the college is vested in a Board of Trustees composed of 49 elected members, 24 of whom represent church conferences; 5 of whom represent the alumni of the institution; 5 of whom represent the faculty; and 15 of whom, including three students, are elected at large.

Lebanon Valley College maintains a full program of intramural and intercollegiate athletic activities. Intramural leagues and tournaments are conducted in the various sports for men and women.

The college participates in ten intercollegiate sports for men (baseball, basketball, crosscountry, football, golf, lacrosse, soccer, track, wrestling and tennis) and three for women (basketball, hockey and lacrosse).

Lebanon Valley College supports its intercollegiate athletics program because it offers its students an opportunity to participate in activities that afford an outlet for competitive spirit and vitality, while further providing each student with an opportunity to develop, understand and appreciate the values of teamwork, pride, morale, dedication, physical fitness and school spirit.

> Religious Life

Lebanon Valley College was founded as a Christian college and continues to be dedicated to its faith. All students are invited and urged to participate in some phase of religious activity.

Offered on campus is a Chapel-Convocation program which provides a regular opportunity for all people on campus to share a common experience. This common hour focuses on values, new knowledge, different beliefs, cultural enrichment, current questions and religious faith.

Throughout the year several organizations (PROJECT, Delta Tau Chi and Fellowship of Christian Athletes) contribute to the overall religious atmosphere at the college by sponsoring retreats, lectures, seasonal communion services and daily devotions.

Each year the college also sponsors several religious lectureships including the Balmer Showers Lectureship, Religion and Life lectures and Religious Emphasis Week.

Students are also encouraged to participate in local congregations of their own faith.


# Cultural Opportunities 

Lebanon Valley College offers cultural programs in the form of the Great Artists Series. concerts by students, faculty members. and musical organizations in the Department of Music, lectures sponsored by the various departments of the college and the Spring Arts Festival. In addition, the neighboring communities of Harrisburg, Hershey and Lebanon offer concerts, lectures, and other cultural activities throughout the year.


## Social Life

The primary concern of the college in regard to the social life of its students is to provide an atmosphere which stimulates scholarship and personal growth. It attempts to provide the privacy and peace necessary for study, and to encourage the individual to take as much responsibility as possible for his/her own behavior, so that the rights of others to privacy, peace and property are not infringed.

As guidelines for the behavior deemed conducive to scholarship and developing sensitivity to the restraints of community living, the college recognizes the position taken by the United Methodist Church, to which it is affiliated, and by the Commonwealth of Pennsylvania. The Discipline of that church firmly opposes the misuse of drugs and affirms its long-standing recommendation of abstention from alcoholic beverages because of the spiritual, physical, and social harm such practices may produce. The college endorses this position and strongly discourages the use of drugs and alcoholic beverages by its students. The laws of the Commonwealth of Pennsylvania prohibit the possession and use of all illegal drugs and the possession and use of alcoholic beverages by minors (presently defined as those prior to their twenty-first birthday). The college fully supports the laws of the state, and acknowledges the rights of enforcement of these laws by civil authority.

Most of the success of any community in establishing a harmonious and productive atmosphere rests on the voluntary cooperation of its members. In the event.however, of failure of individuals to respect the rights and privileges of others and of the institution, the offenders
against the community will be subject to penalties designated by the appropriate student government agencies and/or administrative office.

The complete Student Conduct Code appears in the Student Handbook. Several provisions of that code that require emphasis are given here in order to prevent misunderstanding on the part of all prospective students. A violation of the Student Conduct Code occurs when a student:

1. Limits or restricts the freedom of any member of the campus community to move about in a lawful manner.
2. Creates or participates in a disturbance that infringes upon the individual's right to privacy.
3. Enters or uses facilities or property of the college or another person without authorization from the appropriate college official or person.
4. Misuses, removes, damages fire/safety equipment.
5. Uses or possesses firearms, explosives (including firecrackers) or other dangerous articlesor substances potentially injurious to persons or property.
6. Possesses and/or consumes alcoholic beverages on
any property owned by Lebanon Valley College.
7. Possesses, distributes, sells, or is under the influence of narcotics, hallucinogenics, dangerous drugs, or controlled substances except as permitted by law.
8. Intentionally obstructs the administrative or academic operation and functions of the college.
9. Visits in an individual's dormitory room at times and under conditions that are prohibited by institutional policy (See L-Book)
10. Keeps pets in college buildings or on college grounds unless prior approval by the dean of students has been given.

Within the program and operation of Lebanon Valley College, there is a wide commitment to the principle of shared governance. In this commitment. various areas of student life come under the jurisdiction of student government in varying degrees as that part of the total campus governance system has been developed over a period of time.

The representative organizations described below are privileged to conduct the affairs of the student body of Lebanon Valley College under their separate responsibilities in such manner as to guide and promote the affairs of the students and as to refrain from acting contrary to local, state, and federal laws and to the Student Conduct Code as defined in the Student Handbook.

## Student Council

The Student Council seeks to foster understanding and cooperation among the students, faculty, and administration of Lebanon Valley College. It is the responsibility of the Student Council to serve as the central clearing house for all recommendations and grievances emanating from the student body and to make recommendations for altering or establishing policy to the appropriate administrative office or faculty committees. The Student Council, composed of eighteen members, also coordinates student activities and provides for the financing of those activities.

## Student Judicial Board

The Student Judicial Board is responsible for the investigating and/or adjudicating alleged infractions of the Student Conduct Code. It is composed of eight elected
students, eight selected students, and non-student members appointed by the president of the college. The Case Investigation Board carries out investigative responsibilities of the Student Judicial Board. The Case Investigation Board is composed of a maximum of nine students selected by a committee composed of the Student Judicial Board chairman, the outgoing chairman of the Case Investigation Board and the Dean of Students.

## Judicial Appeals Board

The Judicial Appeals Board hears appeals from students on decisions rendered by the Student Judicial Board and/or sanctions imposed by the dean of students. It is composed of four students, three faculty members, and three administrators.

Student Conduct Code

## Student Government



## Admissions

All candidates for admission are expected to complete 16 units of entrance credit and graduate from an accredited secondary school. Of the nongraduate, we require submission of the equivalency certificate (G.E.D.) acquired through examination. Ten of the 16 required units should be distributed as follows: English (4); foreign language (2); mathematics (2); science (1); social studies (1).

Because evaluation of individual interests, merit and need is a vital part of our admissions procedure, all candidates for admission are required to visit the campus for a personal interview and campus tour.

The admissions office is open Monday through Friday, 8:30 a.m. to 5:00 p.m. and on Saturday mornings, 9:00 a.m. to 12 noon during the academic year. Summer hours are Monday through Friday, 8:00 a.m. to 4:00 p.m.
(1) Early in your senior year of high school, submit a completed application form (last page of Catalog) and the $\$ 20.00$ fee, (Use the prepaid envelope at the back of the Catalog to return your application and fee.)
(2) Ask your high school guidance counselor to submit your high school record.
(3) If you have completed post-graduate work at another college or university, ask the registrar to send us official transcripts of that work.
(4) Have the results of your Scholastic Aptitude Tests for

American College Tests) sent to us. The College Board of Achievement Tests are not required. However, the achievement tests in foreign language are recommended for students wishing advanced placement. See your high school guidance counselor for information on dates and testing locations.
(5) If you plan to apply to the music. sacred music or music education programs, you are required to audition on campus. Audition forms are available from the admissions office.

High School Preparation

The Personal Interview

## Application Procedure

## Early

 Decision Admissions Policy
# Regular Admissions Policy 

A student wishing to be considered under the regular admissions program should file an application after September 1 of his/her senior year. The application must be accompanied by a $\$ 20$ non-refundable application fee. Applicants will be notified of Admissions Committee decisions after December 15 on a continuous basis. A student accepted under the regular admissions program must confirm his/her acceptance by submitting the $\$ 100$ non-refundable deposit no later than May 1.

## Please Direct All Admissions-Related Inquiries To:

Mr. Gregory G. Stanson
Dean of Admissions
Lebanon Valley College
Annville, PA 17003
(717) 867-4411


## Advanced Placement

Advanced placement in appropriate courses and credit will be granted to entering students who make scores of 4 or 5 on College Board Advanced Placement examinations. For scores of 3 , final determination is made by the appropriate department.

Advanced Placement without credit may be granted on the basis of the Achievement Tests of the College Board examinations or such other proficiency tests as may be determined by the registrar and by the chairman of the department.

Credit is granted for acceptable achievement on such Subject Examinations of the College Level Examination Program (CLEP) as are approved by appropriate departments and the Curriculum Committee. Students shall have achieved a scaled score of 50 or better on the objective section and earned a grade of C or better, as determined by the appropriate department, on the essay section of the examination.

Six (6) semester hours credit each is granted for achievement of a composite score in the 50 th percentile or above in General Examinations in English Composition, Humanities, Mathematics, Natural Sciences and History. Three (3) hours credit will be applied to the appropriate General Requirement areas. For the English Composition Examination, the student is given credit for English 111. For the Mathematics Examination, the student is given credit for Mathe-

[^0]matics 100 . Request for credit must be submitted to the director of auxiliary schools for Weekend College students, and to the registrar for other students prior to the student's completion of 30 semester hours credit.

Examinations may be taken prior to admissions or after a student has matriculated at the College. Credit is given only to students who have matriculated at the College. Applicants for admission interested in receiving credit should consult with the Office of Admissions; current students should consult with the registrar. Applicants interested in the CLEP Program should write to the Program Director, College Level Examination Program, P.O. Box 1821, Princeton, N.J. 08540, for a CLEP Bulletin of Information for Candidates, which provides information on examinations and the dates and locations of test administrations.

A student applying for advanced standing after having attended another accredited instituion shall send an official transcript to the dean of admissions. If requested, he must provide copies of the appropriate catalogs for the years of attendance at the other institution or institutions.

Credits are accepted for transfer provided that the grades received are C-(1.7) or better and the work is equivalent or similar to work offered at Lebanon Valley College. Grades thus transferred count for hours only, not for quality points.

A candidate for admission holding an associate degree from a regionally accredited college can be admitted with full acceptance of course work at the previous institution. Course work in the major field, however. for which the applicant has received a D will not be counted toward fulfilling the major requirement.

Because Lebanon Valley College is a liberal arts institution, consideration of full acceptance of the associate degree will be granted with the understanding that the candidate has followed a basic course of study compatible with the curriculum and academic programs of the college and has been enrolled în a transfer program.

In most instances the applicant may be expected to complete the baccalaureate degree within two years. However, when the requirements of a particular major field or the nature of the previous study demand additional work beyond two years, the applicant will normally be notified at the time of admission.

Orientation days are held annually for incoming students. At this time the activities include a general orientation to the college, counseling with academic advisers and pre-registration for courses. Special sessions for parents are a vital part of the program.

An orientation period at the beginning of the college year is provided to help new students, both freshmen and transfers, to become familiar with their academic surroundings. This time is devoted to lectures, social activities, and informal meetings with upperclassmen and faculty members.

## Orientation for New Students

## Costs and Financial Aid

# Financial Support 

Lebanon Valley College receives support authorized by the Ceneral Conference of the United Methodist Church, individual congregations of the denomination in the Eastern Pennsyvania Conference and the Central Pennsylvania Conference, endowments, and the Pennsylvania Foundation for Independent Colleges. Also. since at Lebanon Valley College as at most other institutions of higher learning the tuition and other annual charges paid by the student do not cover the total cost of his education, additional income is derived through the Lebanon Valley College Fund. The Fund is supported by industry, alumni, the Board of Trustees, parents of students, and other friends of the college.

Total assets of Lebanon Valley College are approximately $\$ 22,000,000$ including endowment funds of about $\$ 3,600,000$. Aside from general endowment income available for unrestricted purposes, there are a number of special funds designated for specific uses such as professorships, scholarships, and the library.

## Endowment Funds

## Restricted <br> For educational and general purposes <br> Professorship Funds

Chair of English Bible and Greek Testament • Joseph Bittinger Eberly Professorship of Latin Language \& Literature - John Evans Lehman Chair of Mathematics - Rev. J. B. Weidler Endowment Fund - The Ford Foundation - Butterwick Chair of Philosophy • Karl Milton Karnegie Fund • The Batdorf Fund • E. N. Funkhouser Fund - Mr. and Mrs. C. H. Horn Fund Mary I. Shumberger Fund - Woodrow W. Waltermver Professorship Fund

## Lectureship Funds

Bishop J. Balmer Showers Lectureship Fund - Staley Distinguished Christian Scholar Lectureship Fund

## Library Funds

Library Fund of Class of 1916 - Class of 1956 Libran Endowment Fund • Dr. Lewis J. and Leah Miller Leiby Library Fund - Robert B. Wingate Library Fund

## Maintenance Funds

Hiram E. Steinmetz Nemorial Room Fund •Williams Foundation Endowment Fund

## Equipment Funds

Dr. Warren H. Fake and Mabel A. Fake Science Memorial Fund

## Publicity Funds

Harnish-Houser Publicity Funds

## Restricted-Other

Unger Academic Assistance Fund •C. B. Montgomery Memorial Room Fund $\bullet$ A.I.M. Fund

## Non-Educational Purposes

## Scholarship Funds

Ministerial Scholarship Trusts—United Methodist Church

1. Western Conference
2. Central Pennsylvania Conference
3. Eastern Pennsylvania Conference
4. General Conference
5. Baitimore Conference

Alumni Scholarship Fund - Dorothy Jean Bachman Scholarship Fund - Lillian Merle Bachman Scholarship Fund •E. M. Baum Scholarship Fund - Arthur S. and Emma E. Beckley Memorial Scholarship Fund - Andrew and Ruth E. Bender Scholarship Fund - Cloyd and Mary Bender Scholarship Fund

- Biological Scholarship Fund - Eliza Bittinger Scholarship Fund - Mary A. Bixler Scholarship Fund -1. T. Buffington Scholarship Fund - Alice Evers Burtner Nemorial Award Fund - Oliver P. Buttenwick School Fund - Mr. and Mrs. D. Clark Carmean Scholarship Fund • Isaiah H. Daugherty and Benja$\min$ P. Raab Memorial Scholarship Fund - Senator James J. Davis Scholarship Fund • Derickson Scholarship Fund - William E. Duff Scholarship Fund •Samuel F. and Agnes F. Engle Scholarship Fund • N. C. Favinger and Wife Scholarship Fund - Fred E. Foos Scholarship Fund - Thomas G. Fox Memorial Scholarship Fund • James K. Fry Nemorial Scholarship Fund - C. C. Gingrich Scholarship Fund $\bullet$ Cossard. Plitt and Monteith Scholarship Fund - Margaret Verda Graybill Memorial Scholarship Fund • Peter Graybill Scholarship Fund •Jacob F. Greasley Scholarship Fund • Hilda Hafer Scholarship Fund • Alice M. Heagy Scholarship Fund •J. M. Heagy and Wife Scholarship Fund • Bertha Foos Heinz Scholarship Fund - Haney' E. Herr Memorial Scholarship Fund - Edwin M. Hershey' Scholarship Fund • Nerle M. Hoover Scholarship Fund •Katherine S. Howard Scholarship Fund • Judge S. C. Huber Scholarship Fund $\bullet$ Cora Appleton Huber Scholarship Fund $\bullet$ H. S.

Immel Scholarship Fund • Henry G. and Anna S. Kauffman and Family Scholarship Fund • John A. H. Keith Fund • Barbara June Kettering Scholarship Fund • Dorothea Killinger Scholarship Fund •Rev, and Mrs. J. E. and Rev. A. H. Kleffman Scholarship Fund •A. S. Kreider Ministerial Scholarship Fund - D. Albert and Anna Forney Kreider Scholarship Fund - W. E. Kreider Scholarship Fund - Maud P. Laughlin Scholarship Fund - Lebanon Steel Foundry Foundation Scholarship Fund - David E. and Abram M. Long Memorial Ministerial Scholarship Fund - The Lorenz Benevolent Fund - Mrs. Edwin M. Loux Scholarship Fund - F. C. McKay Medical Scholarship Fund • Elizabeth Meyer Endowment Fund • Elizabeth May Meyer Musical Scholarship Fund - Elizabeth H. Millard Memorial Scholarship Fund - Margaret S. Millard Scholarship Fund • Harry E. Miller Scholarship Fund • Bishop J. S. Mills Scholarship Fund •Germaine Benedictus Monteaux Memorial Scholarship Fund - Deborah A. Moore Memorial Scholarship Fund • Elizabeth A. Mower Beneficiary Fund - Laura Muth Scholarship Fund • Gene P. Neidig Memorial Scholarship Fund - Philadelphia Lebanon Valley College Alumni Scholarship Fund - Rev. H. C. Phillips Scholarship Fund • Pickwell Memorial Music Award • Quincy Evangelical United Brethren Orphanage and Home Scholarship Fund - Ezra G. Ranck and Wife Scholarship Fund • J. Allan Ranck Memorial Scholarship Fund - Levi S. Reist Scholarship Fund - Dr. G. A. Richie Scholarship Fund • Emmett C. Roop Scholarship Fund • Reynaldo Rovers Memorial Scholarship Fund •Mary Sachs Foundation Scholarship Fund $\bullet$ Harvey L. Seltzer Scholarship Fund - Paul Shannon Scholarship Fund • Special Fund • Mary Ann

Ocker Spital Scholarship Fund • Rev. and Mrs. Cawley H. Stine Scholarship Fund • Dr. Alfred D. Strickler and Louise Kreider Strickler Pre-Medical Scholarship Fund - Robert L. Unger Scholarship Fund • Henry J. Wilder Scholarship Fund • J. C. Winter Scholarship Fund •

## Student Loan Funds

Mary A. Dodge Loan Fund • Daniel Eberly Scholarship Fund • Glant-Gibson-Glunt Educational Loan Fund - Esther and Frank Ligan Fund • International Student Loan Fund •

## Prize Funds

Bradford C. Alban Memorial Award Fund $\bullet$ Class of 1964 Quittie Award Fund - The L. G. Bailey Award Fund • Henry H. Baish Award $\bullet$ Andrew Bender Memorial Chemistry Fund © Governor James H. Duff Award - Florence Wolf Knauss Memorial Music Award •LaVie Collegienne Award Fund $\bullet$ Max F. Lehman Fund - Edith Mills Music Award - People's National Bank Achievement Award in Economics - The Rosenberry Award - Francis H. Wilson Biology Award

## Annuity Funds

Ruth E. Bender - Ruth Detwiler Rettew - Paul F. Fulk and Margaret M. Fulk - Rev. A. II. Kleffman and Erma L. Kleffman - E. Roy Line Annuity • Mary Lutz Mairs • Esta Wăreheim

## Unitrust Agreements

Richard L. and Ruth W. Davis Fund - Parke H. and Cecil B. Lutz Fund • Dr. Elizabeth K. Weisburger Trust Fund


## Student Finances

## Fees- 1983-84

Fees and Deposits

## 1983-84 Fee Structure for FullTime Students

| Comprehensive Fee | Per. Yr. |
| :---: | :---: |
| Fee includes the following: | \$5,360 |
| Tuition $\quad \$ 5.200$ |  |
| Fees 160 |  |
| Total Charges for Commuting Student | \$5,360 |
| Room (other than single occupancy) | 1,010 |
| Single in a single occupancy $125 \%$ of above room rate |  |
| Single in a double occupancy |  |
| 150\% of above room rate |  |
| Dining Hall | 1,390 |
| Total Charges for a Resident Student | $7,7 \overline{60}$ |
| Private music Instruction (1/2 hour per wk. |  |
| Beyond the First Half Hour (per semester) | \$120 |
| Transcript in Excess of One | \$2 |
| Each student, former student, or graduate is entitled to one transcript of his college record without charge. For each copy after the first, a fee of two dollars is charged. |  |
| Student Charges for 1983-84 |  |
| Part Time (less than 12 hrs. per sem.) Student Charge (per sem. cr. hr.) | \$135.00 |
| Private Music lnstruction ( $1 / 2 \mathrm{hr}$. per week) | \$135.00 |

Student charges are based upon the principal of prepayment (i.e., to keep student charges at a minimum and yet at a level consistent with maintaining adequate facilities and high quality instruction, payment is a prerequisite for registration).

A non-refundable application fee is charged each applicant and upon acceptance a nonrefundable admission deposit of $\$ 100$ is required of all new (including transfer) students. The admission deposit upon registration is applied to the student's account.

Failure to register in any prescribed pre-registration or registration period, late registration, change in registration-each involves a $\$ 10$ charge to the student.

The semester credit hour charge for part-time students (less than 12 credit hours per semester) is $\$ 120.00$ and the registration fee for a part-time student is $\$ 10.00$.

A health's service fee is collected in the first semester of the student's enrollment and a pro-rata charge applies to the student who first enrolls in the second semester.

The contingency deposit in the amount of $\$ 50.00$ must be made before registration and is required of all full-time students and will be refunded upon graduation or withdrawal from college provided no damage has been caused by the student. All student breakage that occurs in college-operated facilities will be charged against this deposit and the amount must be repaid to the college within 30 days of notice to the student.

Semester charges are due and payable in full on August 10 (first semester) and January 2 (second semester) as a condition for registration. Arrangements for deferred payment plans shall be completed early enough to assure payment of bills no later than the date that semester charges are due and payable (Aug. 10 and Jan. 2).

A satisfactory settlement of all college accounts is required before grades are released, transcripts are sent, honorable dismissal granted, or degree conferred.

Refunds, as indicated below, are allowed only to students who officially withdraw from the college by completing the clearance procedure:

| Period after registration | \% refunded of tuition |
| :---: | :---: |
| Within 2 weeks | 75\% |
| Within 3rd week | 50\% |
| Within 4th week | 25\% |
| After 4 weeks | 0\% |

The above refund schedule also applies to part-time students, and to full-time students who withdraw from a course or courses so as to reduce the remaining course load to less than 12 semester credit hours.

A prorated refund on board charges is allowed for the period beginning after honorable official withdrawal. No refund is allowed on room charges.

No refund is allowed on room deposit except when withdrawal results from suspension or dismissal by college action or when withdrawal results from entrance into active military sewice.

Refunds for students who withdraw due to health reasons during the first half of either semester will be determined by the Office of the Dean of Student Affairs.

Residence hall rooms are reserved only for those continuing students who make an advance room reservation deposit of $\$ 50.00$ (Receipt must be presented at the time of room sign-up which occurs during April.)

Occupants must pay for any breakage or loss of furniture or any other damage for which they are responsible. Damage not assignable to an individual occupant may be prorated to accounts of occupants within the responsible area (wing, hall, floor, dorm, etc.).

Each room in the men's residence halls is furnished with chests of drawers, book case, beds, mattresses, chairs, and study tables. Drapes are provided in Funkhouser, Hammond, and Keister Halls. Students must provide bedding, rugs, lamps, and all other furnishings.

Each room in the women's residence halls is furnished with beds, mattresses, chairs, dressers, book case, and study tables. Drapes are provided in Mary Green and Vickroy Halls. Other desired furnishings must be supplied by the student.

## Payment of Fees and Deposits

## Residence Halls



Students rooming in residence halls may not sublet their rooms to commuting students or to others.

Since Lebanon Valley College is primarily a boarding institution, all students are required to live in college-owned or controlled residence halls. Exceptions to the above are: married students, students living with immediate relatives, or those living in their own homes who commute daily to the campus.

Should vacancies occur in any of the residence halls, the college reserves the right to require students rooming in the community to move into a residence hall.

The college resewes the right to close all residence halls during vacations and between semesters.

The college resenves the right to inspect any student's room at any time. Periodic inspection of residence halls will be made by members of the administration.

The college is not responsible for loss of personal possessions by the students. It is recommended that each student consider the need to provide private insurance coverage.

## Meals

All resident students are required to take their meals in the college dining rooms. Commuting students may arrange for meals Monday through Friday, on a semester basis, if space is available.

Lebanon Valley College makes every effort to financially assist those students who, without such assistance, would be unable to attend. It is impossible for many students to meet the high costs of the quality education which Lebanon Valley provides, and this is supported by the fact that nearly $75 \%$ of current LVC students are receiving some type of aid.

Lebanon Valley's financial aid program is based on the premise that it is the responsibility of the student and his or her parents to meet educational expenses to the extent that they are able. When it is determined that a student demonstrates financial need (the difference between overall educational costs and the amount of money the family can reasonably make available for educational purposes), aid resources are then allocated in an effort to meet that need. Lebanon Valley subscribes to the nationally accepted need analysis guidelines known as uniform methodology.

In order to assist the greatest number of needy students, limited financial aid resources are allocated equitably in packages consisting of gift aid (grants, scholarships) and "self-help (loans. work). No student should be expected to carry an unusual burden of self-help under normal circumstances. nor should any student expect his need to be met entirely with grant funds.


## Financial Aid

## Application Procedures

1.) All students applying for financial aid at Lebanon Valiey College must file the complete Financial Aid Form (FAF plus the Supplement) with theCollege Scholarship Service in Princeton, New Jersey. Filing this form will allow students to be considered for LLC Grants, NDSL, SEOG, and College Work-Study. The FAF may also be used to apply for Pell Grants and some state grants (i.e. New Jersey). Forms are available in high school guidance offices and college financial aid offices, and must be filed prior to March 1 in order for students to be guaranteed consideration for institutional aid.
2.) Pennsylvania residents must file the combined PHEAA

Financial aid resources available to students attending Lebanon Valley College are of three basic types-grants and scholarships, loans, and employment. Sources of aid include federal and state governments, various private agencies, and Lebanon Valley College.

- Grants and scholarships are outright gift aid to students. and do not have to be repaid. With the exception of DLC Presidential Scholarships, which are merit awards, all grants are need-based. These grants include: Pell Grants (formerly BEOG). Supplemental Educational Opportunity Grants (SEOG). Pennsylvania (PHEAA) and other State Grants. LVC Grants-in-Aid, and external grants and scholarships.
- Loans to students are available in the form of National Direct Student Loans (NDSL), and Guaranteed Student Loans (GSL). The NDSL is a need-based loan, whereas the GSL may currently be obtained by any student who is enrolled at least half-time, regardless of need. These loans must be repaid at low interest rates upon the stu-
dent's departure from the institution. Parent Loans. available to parents of dependent students at higher interest rates and immediate repayment, may be obtained if other resources are insufficient.
- Campus Employment opportunities are available to students in such areas as the dining hall, library, or academic departments. Needy students are assigned parttime jobs under the federaliy-subsidized College WorkStudy program; other students may obtain jobs under the institutionally-funded work-aid program if: 1.) their services are requested by a particular department. or 2 .) there are jobs available after needy students have been assigned.

Recent federal legislation may have resulted in changes to some of these aid programs. More updated and detailed information regarding specific aid programs is contained in the Financial Aid brochure published by the LVC Financial Aid Office.

Students are notified of the amount and provisions of all financial aid awarded upon the College's receipt and evaluation of all necessary forms. Where awards from external agencies are expected but not yet made official, estimated awards will be stated. Students are responsible for notifying the College of acceptance or rejection of the aid offered, and are responsible for signing and returning all necessary forms.

Awards to new students are made within two weeks of receipt of all necessary information, and the College subscribes to the standard financial aid acceptance date of May 1. Returning student award notices are sent to students within four weeks of the end of the spring semester, with an expected response period of thirty days.

The financial aid officer at Lebanon Valley College is responsible for the allocation of LVC Grants as well as federal campus-based student assistance (NDSL, SEOG. Work-Study). These resources are used to meet remaining need after Pell Grants. state grants, and external awards (not made by LVC) are considered. Lebanon Valley attempts to achieve a comparable grant vs. self-help ratio in the total aid package of all incoming students, however, the wide variance in external aid awards (i.e. state aid) often makes this impossible. Limited institutional resources also require that students' academic talents and special abilities be considered in the awarding of LVC Grants.

Each student's financial need is computed yearly, and LVC attempts to maintain approximately the same proportion of grant aid in the student's package, unless the applicant's need changes drastically.

A student's receipt of financial assistance requires that he/she assume certain responsibilities. These are stated below.
1.) Students must be enrolled full-time in order to be considered for LIC Grants. SEOG, NDSL. Work-Study, or state grants.
2.) Students must be enrolled at least half-time (six credits) in order to be eligible for Pell Grants or obtain Guaranteed Student Loans or Parent Loans.
3.) Students receiving financial aid awards in excess of $\$ 100$ from external sources must report these awards to the Financial Aid Office. The College resenves the right to adjust the student's aid package accordingly.
4.) All transfer students must submit a Financial Aid Transcript of aid resources from their previous institution(s) before LXC aid can be finalized.
5.) Students must maintain satisfactory academic and social standing requirements to retain their financial aid. For retention of LVC, Grants, satisfactory academic requirements are defined as: 1.) students must he enrolled fulltime, and 2.) must either not be on academic probation, or, if on probation have a cumulative gradepoint average higher than the corresponding semester GPA levels which sene as criteria for academic proba-
tion. A student's status is evaluated each semester. Presidential Scholarship recipients must maintain a 2.5 cumulative GPA to insure retention of that award.
Academic progress terms for PHEAA Grants require that students successfully complete 24 credit hours during the most recent two-semester period in which they received state grant aid. Academic progress for all other programs is defined by the student's eligibility for continued enroilment in a degree program at LVC.
In order to demonstrate satisfactory social standing for purposes of retaining LVC Grants and Scholarships. students must not be placed on disciplinary probation by the dean of students. Students will be denied LXC grant assistance for each semester (including portions of semesters) during which the student is in probationary status. The denial of aid will take place in the semester(s) immediately following the semester in which disciplinary action is taken. Satisfactory social standing for all other programs is defined by the student's eligibility for continued enrollment in a degree program at LIC.

## Policies and Student Responsibilities

## Packaging Financial Aid



## Academic Programs/Procedures

Lebanon Valley College confers four bachelor degrees upon students who are recommended by the faculty and approved by the Board of Trustees. They are: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry, and Bachelor of Science in Medical Technology.

The Bachelor of Arts degree is conferred upon students who complete requirements in the following areas: English, foreign languages, French, German, history, humanities, music, philosophy, political science, psychology, religion, sacred music, social science, sociology and Spanish.

The Bachelor of Science degree is conferred upon students who complete requirements in the following areas: accounting, actuarial science, biochemistry, biology, business administration, chemistry, computer science, cooperative engineering, cooperative forestry, economics, elementary education, international business, mathematics, music education, nuclear medicine technology, nursing, operations research, physics and social service.

As appropriate, the degree of Bachelor of Arts or Bachelor of Science is conferred upon the student who completes an individualized major program.

The professional degrees of Bachelor of Science in Chemistry and Bachelor of Science in Medical Technology are conferred upon students who complete the respective requirements.

Requirements for degrees are stated in semester hours of credit. Generally, one semester hour of credit is given for each class hour a week throughout the semester. In courses requiring laboratory work, not less than two hours of laboratory work a week throughout a semester are required for a semester hour of credit. A semester is a term of approximately 15 weeks.

Candidates for degrees must obtain a minimum of 120 semester hours credit in academic work in addition to the required two semester hours credit in physical education. However, a student who has a physical disability may be excused (on recommendation from the college physician) from the physical education requirement.

Each student is assigned a faculty adviser who senves in the capacity of friendly counselor. The chairman or another adviser of the department in which the student has elected to major becomes the adviser for that student. The adviser's approval is necessary before a student may register for or withdraw from any course, select or change his pass/fail elections. change course hours credit, or change from credit to audit or vice versa.

## Degrees

## Semester Hours

## Faculty Advisers

# Major 

As part of the 120 semester hours credit required in academic work, every degree candidate must present at least 24 semester hours credit in a major. The initial selection of a major may be indicated or recorded any time before the end of the sophomore year. Such a choice of major must be made by the time of registration for the junior year.

A student shall be accepted as a major in a department so long as he has not demonstrated (by achieving less than the minimum grade-point average in the desired major) that he is incapable of doing satisfactory work in the department. A student accepted as a major has the right to remain in that department, except by special action of the dean of the faculty, as long as the student is in college.

Substitution or waiving of specific courses required for the major may be approved by the departmental chairman or advisers upon student request.

A student desiring to major in two subject areas should consult his current adviser and the chairman of the department of his proposed second major concerning the requirements and procedure.

## Residence Requirement

Degrees will be conferred only upon those candidates earning in residence a minimum of 30 semester hours out of the last 36 taken before the date of the conferring of the degree, or before the transfer to a cooperating program. Residence credit is given for course work completed in regular day classes and in Weekend College. University Center, evening and summer session courses taken on campus.

> Transfer Students

## Grade-Point Averages

Students transferring from two-year institutions (except those in the medical technology and nursing programs) are required to have at least 60 hours of work at a four-year institution for graduation. All students must take a minimum of 30 hours at Lebanon Valley College.

Students transferring from other institutions must secure a grade-point average of 1.75 or better in work taken at Lebanon Valley College, and must meet the 2.0 gradepoint average in their major field.

Candidates for degrees must obtain a cumulative grade-point average of 1.75 . computed in accordance with the grading system indicated below. In addition, candidates must earn a major grade-point average of 2.0 .

Only grades received in courses taken on campus, in courses staffed by Lebanon Valley College at the University Center at Harrisburg, or in courses in the LVC-Central College International Studies Program and the LVC Washington Semester are used to determine grade-point averages.

Student work is graded $A, B, C, D$ or $F$, with the plus and minus available to faculty members who wish to use them. These grades have the following meanings:
$A$-distinguished performance
$B$-superior work
C-general satisfactory achievement
$D$-course requirements and standards satisfied at a minimum level
$F$-course requirements and standards not satisfied at a minimum level
A student may not take any course which has as a prerequisite a course that he has failed.
In addition to the above grades, the symbols $I, W, W P$, and $W F$ are used on grade reports and in college records. I indicates that the work is incomplete (that the student has postponed with the prior consent of the instructor and for substantial reason, certain required work), but otherwise satisfactory. This work must be completed within the first six weeks of the beginning of the next semester, or the $I$ will be converted to an $F$. Appeals for extension of time beyond six weeks must be presented in writing to the registrar not later than one week after the beginning of the next semester.
$W$ indicates withdrawal from a course through the eighth week of semester classes. In case of a withdrawal from a course thereafter through the last day of semester classes, the symbol $W P$ will be entered if the student's work is satisfactory, and $W F$ if unsatisfactory. The grade of $W F$ is counted as an $F$ in calculating the grade-point averages.

For physical education courses and courses in which no academic credit is involved, student work is evaluated as either $S$ (satisfactory) or $U$ (unsatisfactory).

For each semester hour credit in a course in which a student is graded $A$, he receives 4 quality points: $A-, 3.7 ; B+3.3 ; B, 3.0 ; B-.2 .7$; and so on. $F$ carries no credit and no quality points.

Lebanon Valley College recognizes as part of its responsibility to its students the need for providing sound educational, vocational, and personal counseling. Measures of interest, ability, aptitude, and personality, in addition to other counseling techniques, are utilized in an effort to help each student come to a fuller realization of his capabilities and personality.

Placement senvices are provided by the college for aiding students in procuring part-time employment while in college and in obtaining positions upon graduation. A current file is maintained which contains information about positions in various companies and institutions, teaching, civil service opportunities and examinations, entrance to professional schools, assistantships, and fellowships. Representatives of business, industry, and educational institutions visit the campus annually to interview seniors for prospective employment. A file of credentials and activities of those students availing themselves of the senvices is available to prospective employers. Graduates may keep their individual files active by reporting additional information to the director of placement.

Records of students' credentials in all areas of student activities are on file.

## Grading System and Quality Points

## Counseling and Placement

## Baccalaureate and Commencement Attendance

All seniors are required to attend the May baccalaureate and commencement programs at which their degrees are to be conferred, except for the most compelling reasons and only upon a written request approved by the registrar and submitted to him at least two weeks prior to commencement. Faculty approval is required for conferring of the degree and issuance of the diploma in any case of willful failure to comply with these regulations.

Students graduating in January (mid-winter) or August (summer) are invited. along with their families, to attend an informal but meaningful ceremony marking the completion of their collegiate experience. Participation in these exercises is not required. Students graduating in January or August are also entitled to participate in the May Commencement and Baccalaureate if they desire.

Pass/Fail

## DEGREE STUDENTS PRIOR TO FIRST SEMESTER, 1979-1980

After attaining sophomore standing ( 28 semester hours credit), a student may elect to take up to two courses for the semester and one-semester course per summer session on a P/F basis, but only six of these courses can be counted toward graduation requirements.

Any courses not being counted toward the fulfillment of the general requirements or the major requirements may be optional on a pass/fail basis. Any prerequisite course taken PF and successfully completed will satisfy the prerequisite.

Each department may, with the approval of the dean of the faculty, designate certain courses, including those required for the major, in which the grading will be PFF for all students. Courses so designated shall not count toward the total number of courses available P/F to the student.

A course taken PFF will be graded P/H ( $B+$ and higher). $P(D-$ through $B$ ), and $F$ (below D - ).

A course passed PFF shall be counted toward graduation requirements, but only an F grade shall be included in computing the grade-point average.

The student, with approval of his adviser, will indicate at registration or through the eighth week of semester classes the courses that he has elected to take PFF. He may, with approval of his adviser. remove a course from $\mathrm{P} / \mathrm{F}$ during the same period.

Instructors may be informed of P/F options selected by students only after semester grades have been reported. Instructors will submit for each student an A through F grade which will be converted to P/H. P. or F.

## PERSONS BEGINNING STUDY AS DEGREE STUDENTS IN THE FIRST SEMESTER, 1979-1980, AND THEREAFTER

Pass/fail requirements are the same as listed above with the following exceptions: (1.) courses which are prerequisites or corequisites for major courses may not be taken PF. (2.) Election of the P/F option shall be completed within the first two weeks of the semester: a student may remove a course from P/F during the first eight weeks of the semester.

To graduate from Lebanon Valley College, students must satisfy certain general requirements, outlined below:

1. Writing Skills (6 credits). English 111, 112.
2. Religion and/or Philosophy ( 6 credits). Philosophy 110, 228, 231; Religion 110, 111, 112, 120, 222.
3. Natural Science ( $6-9$ credits, depending upon the selection of courses; one course must be a laboratory, listed in italics). Biology 101/102, 111/112, 302, 309; Chemistry 101, 102, 103, 104. 111, 112, 113, 114: Mathematical Sciences 100, 102, 111, 160. 161, 170, 270; Physics 100, 103, 104, 110, 111, 112; Psychology 110, 120. 235, 236, 237. 238. 444.
4. Individual and Group Behavior ( $9-10$ credits, depending upon the selection of courses; student chooses 3 or 4 courses from at least 2 disciplines). Economics 110/ 120; Geography 112; all History courses except 400, 412, 500; Metropolitan Semester 260: Political Science 111/112.211.212, 311, 312. 314, 411, 413: Psychology 100, 321, 337, 343, 346: Religion 140; Sociology 110, 122, 211, 232, 242, 251, 273, 282, 322: appropriate Interdisciplinary courses.
5. Foreign Language (3-9 credits, depending upon the option selected). This requirement may be met in one of five ways: 6 credits in elementary foreign language; 6 credits in intermediate foreign language: 3 credits in intermediate foreign language and 3 credits in computer language (Computer Programming 170. Computer Science 241): 3 credits in advanced foreign language: or $6-9$ additional credits of General Requirements. not in physical education or the major field(s).
6. Arts and Letters (6 credits). Art 110, 201, 203: English 221/222, 225/226, 227/228, 250-299:321/322. 337, 338, 339; all foreign language courses numbered 116 or higher except those numbered 215, 252, 440, 445/446, 500; Metropolitan Semester 270, 290: Music 100 or 341/342: Philosophy 350-399; appropriate Interdisciplinary Courses.
7. Physical Education (2 credits).

## Notes:

- Total credits required for graduation: 122.
- No course from a student's first major may be used to meet the general requirements; however, courses required for a second major, as well as any required courses in a collateral field. may be used to meet requirements.
- Requirements may also be satisfied through proficiency examinations. Advanced Placement Program, and College Level Examination Program: further information may be obtained from the registrar.

The General Requirements

## The Honors Program

## Director:

 Dr. . VarkouiczThe Honors Program is designed for superior students who are keenly motivated to expand their intellectual horizons, to develop their curiosity and creativity, and to assume a personal responsibility for challenging their intellectual abilities. The program seeks to sharpen critical and analytical thinking, to develop verbal and written expression. to encourage intellectual independence, and to foster sensitive and informed investigation of human values. To achieve these goals, the program offers a rigorous curricular alternative to the general requirements of the College.

Participants are selected during their freshman year on the basis of interviews and scholastic records.

Requirements: To graduate as an Honor Student. one must have maintained an average of 3.0 overall and in the program; have completed the four Honors courses, six credits in Honor seminars, and six credits in independent study; and have taken a laboratory science course. a foreign language at the intermediate level or above, and two courses in physical education.

## HONORS COURSES

201. Human Existence and Transcendence. A close examination of the basic questions and issues pertaining to human existence and the ways in which mankind has attempted, religiously and philosophically, to rise above the prevailing conditions of human existence. This course seeks to describe and examine the commonalities and differences between religion and philosophy as each discipline addresses itself to existence and transcendence.
202. The Individual and Society. An investigation into the structures of society, their origins, and their impact upon human values. Emphasis will be given to the interaction of the individual and the socio-cultural environment. The approaches of the various social sciences will be evaluated.
203. The Nature and Impact of Science. An investigation of the nature of science, its goals, assumptions. and methods. The relationship between science and technology as well as ethical and valuational issues inherent in science will also be considered.
204. Human Creativity. A study of the major forms of literature. music. and plastic art, designed to acquaint students with the functions, values, and aesthetic and cultural contexts of art, as well as to enhance their responses to artworks.

## HONORS SEMINARS

These courses, which may be interdepartmental and team-taught, are intensive studies of selected topics available to junior and senior Honor Students.

## INDEPENDENT STUDY

An independent study project, which is the capstone of the Honors Program, provides the opportunity to carry out an extensive academic study of the student's own design. The project, which is overseen by a faculty member, must be approved by the Honors Director. When acceptable to an academic department, such independent study may serve as the basis for Departmental Honors. Upon completion, the project will be presented publicly.

All major programs provide the opportunity for departmental honors work during the junior and senior years. For specific information, interested students should contact the appropriate department chairman. Generally, departmental honors consists of a reading and/or research project producing a thesis or essay. This project is undertaken on a subject of the students' own choosing under the supervision of a faculty adviser. Opportunity also exists to do creative work. A maximum of nine hours credit may be earned in departmental honors.


Departmental Honors

Summer sessions, evening classes on campus. Weekend College. and extension classes in the University Center at Harrisburg enable teachers, state employees, and others in active employment to attend college courses and secure academic degrees. By a careful selection of courses made in consultation with the appropriate adviser, students can meet many of the requirements for a baccalaureate degree. Some courses may be taken for provisional and permanent teaching certification; others may be taken with the aim of transferring credit to another institution. Many courses lead to professional advancement or are of direct benefit to persons in business or industry, while others assist in broadening the student's vocational. social, and cultural background.

Brochures are published for the summer session, the evening classes, and Weekend College. For information write to the Director of Auxiliary Schools, Lebanon Valley College. Annville, Pennsyvania 17003.

## Weekend College

The Weekend College offers full degree programs in accounting, business administration, nursing, social science, sociology, and social service. with all of the necessary classes meeting on alternate Friday' nights and Saturdays in both the academic semesters and the summer. These residence credit classes are primarily intended for off-campus adults interested in pursuing a college degree.

## Campus Evening Classes

Evening classes are offered on the campus, Monday through Thursday, and carry residence credit

The evening school includes an ENRFCH Program in Business Administration or Accounting. The student receives a certificate of achievement upon successful completion of the 60 semester-hour program.

## Summer Session

Regular enrolled students may, by taking summer session courses, meet the requirements for the bachelor's degree in three years.

## University Center at Harrisburg

Extension classes are offered at the Center's campus. 2991 North Front Street. Harrisburg. 17110. on Monday through Thursday evenings and on Saturday mornings during the regular academic semesters. Classes meet during the summer sessions on various evenings. Lebanon Valley College's extension program in Harrisburg is carried on in conjunction with Elizabethtown College, Temple University. The Pennsylvania State University: and the University of Pennsylvania. Courses offered by Lebanon Valley may carry residence credit.

All students admitted and enrolled for a degree at the college are required to secure the permission of their advisers and the registrar prior to enrolling for any courses at the University Center at Harrisburg.

For details pertaining to the University Center at Harrisburg write or call the director at 2991 North Front Street, Harrisburg, Pennsylvania 17110, at 717-238-9694 during the day or 717-238-9696 during the evening.

> Off-Campus Opportunities

A student's study at Lebanon Valley College is not limited totally to on-campus work. The college participates in several off-campus learning experiences for which students may register and receive credit.

## Environmental Biology

Lebanon Valley College maintains active programs in the following areas of Environmental Biology: Ecology; Marine Biology: Field Botany and Zoology: Forestry (Cooperative Program): Ervironmental Management (Cooperative Program).

Field trips to the College of Marine Studies, University of Delaware, and the University of Georgia Marine Institute, Sapelo Island, Georgia, are made by students involved in the Marine Biology and Ecology programs. Students in the cooperative forestry and environmental management pro-
grams visit Duke University each year. Freshwater pond and forest ecosystems which are used for ecological study are located on the campus at Kreiderheim. Wilderness areas which include the transition zone between southern and northern forests occur within a few miles of campus. Flooded limestone quarries are available for students who desire more intensive training in aquatic ecology and/or limnology.

Internships in a number of ecologically-related areas have been arranged with local industries and municipal governmental agencies. On occasion these lead directly to future employment.

The faculty of the Department of Biology includes professors specifically trained in and actively engaged in research in the areas of marine biology, ecology, plant taxonomy, animal taxonomy, and plant physiology. All hold doctoral degrees in their area of specialty and all involve students in their research efforts. The result has been an unusually high degree of achievement in student research projects, a number of which have been published in prominent scientific journals.

It is the experience of the department that students well trained in all areas of science who have an understanding of mathematical methods, chemical techniques, and biological theory meet with the greatest success both in finding employment and in their future graduate work. Therefore a well-balanced program of courses in science is stressed with emphasis on those important for environmental biology, and students in these areas are encouraged to obtain a biology major. However, if a student wishes his/her major to be in a more specialized area such as Marine Biology, this can be arranged through the College's Individualized Major Program.
Advisers: Dr, Williams, Dr. Paul Wolf

## Germantown Metropolitan Semester

Lebanon Valley College sponsors an urban semester program through the Metropolitan Collegiate Center of Germantown, Philadelphia, Pennsylvania. This is a one-semester program of a pre-professional internship and academic seminars relating to the city. The program is designed especially for students who are interested in cities and the opportunity of living and working in a pluralistic urban world; or who want the practical and personal advantages of work experience especially for purposes of vocational and educational decisions.

Internship placements are available in a diverse range of social service, mental health, law enforcement, medical research, and health-care-delivery agencies. Fifteen academic credits are offered in the program. Metropolitan Semester students live in housing approved by the Center staff. Total costs are comparable to those of a semester on campus.

## Adviser: Dr. Hanes

## International Studies Program

Lebanon Valley College offers an International Studies Program in cooperation with Central College, Pella, Iowa. This affiliation, which is shared with twenty-three other colleges and universities across the country, enables Lebanon Valley students to enroll for foreign study in France,

Germany-Austria, Spain, Mexico, Wales or England while maintaining their regular enrollment status at Lebanon Valley and their college and other financial aid.

Students may also study abroad under a program administered by an accredited American college or university. or in a program approved by Lebanon Valley College. Such students must have maintained a 3.0 average at Lebanon Valley College, must be proficient in the language spoken in the country in which they will study, and must be in the judgment of the registrar and the faculty, worthy representatives of their own country. Their proposed courses of study must be approved by the appropriate departmental chairman and the registrar.
Advisers: Dr. Iglesias, Dr. Ford

## Washington Semester Program

Students at Lebanon Valley College are eligible to participate in the Washington Semester Program which is offered in cooperation with The American University in Washington, D.C. Participants select one of seven options: the American governmental and political system as a whole (Semester in American National Government), urban politics and policy-making, using Washington as a case study (Urban Semester), American foreign policy formulation and implementation (Foreign Policy Semester), practical and theoretical study of economic policy (Economic Policy Semester), cultural institutions of Washington (Semester in American Studies), institutions and processes of the criminal justice system (Justice Semester), journalism in Washington (Journalism Semester). Different types of courses are offered in specific combinations for each option, including internships, individualized research projects worked out with an adviser at Lebanon Valley College and an instructor at American University, elective courses, and seminars providing meetings with public officials, political figures, private interest group representatives, and other knowledgeable persons.

The program is open to juniors and seniors in any major field who have at least a 2.5 average, have had the basic courses in American national government, and are recommended by the chairman of the Department of History and Political Science. Two students from the college will be selected each November by American University to participate in the following spring semester. Students in the program have the same status as full-time undergraduates at American University and will receive full credit for one semester's work toward their degree at Lebanon Valley College.
Adviser: Dr. Geffen

There are a number of academic procedures necessary to ensure that all students are given every opportunity to take courses which contribute to their total educational program.

## Preregistration and Registration

Students are required to preeregister and register for
courses on designated days of each semester. These dates are listed in the official college calendar.

## Academic Procedures

Acad. Procedures 51

## Late Preregistration and Registration

Students preregistering or registering later than the days and hours specified will be charged a fee of $\$ 10.00$. Students desiring to register later than one week after the opening of the semester will be admitted only by special permission of the registrar.

## Change of Registration

Change of registration, including pass/fail elections. changes of course hours credit, changes from credit to audit and vice versa. must be approved by signature of the adviser. In most instances registration for a course will not be permitted after the course has been in session for one full week. With the permission of the adviser, a student may withdraw from a course at any time through the last day of semester classes (see grading policy). A fee of $\$ 10.00$ is charged for every change of course made at the student's request after registration.

## Discontinuance of Courses

The college reserves the right to withdraw or discontinue any course for which an insufficient number of students has registered.

## Repetition of Courses

A student may repeat as often as desired. for a higher grade, a previously taken course, subject to the following provisions: the course must have been taken in all registrations on campus and/or in courses staffed by the coilege at the University Center at Harrisburg. Semester hours credit are given only once. The grade received each time taken is computed in the semester grade-point average. The higher or highest grade is used to compute the cumulative gradepoint average. Each semester grade report will show hours credit each time passed, but the total hours toward degree will be equal only to the semester hours credit for the course. For a course previously passed P/F, the grade received in the subsequent registration for regular grade is the "higher grade." Each grade received remains on the permanent record card and a notation is made thereon that the course has been repeated.

## Concurrent Courses

A student enrolled for a degree at Lebanon Valley Col-
lege may not carry courses concurrently at any other institution or in Weekend College or the University Center at Harrisburg without prior consent of his adviser and the registrar.

A student registered at Lebanon Valley College may not obtain credit for courses taken in other colleges, including the University Center at Harrisburg, during the summer unless such courses have prior approval of his adviser and the registrar.

## Auditing Courses

Students may register to audit courses with approval of the academic adviser. Audited courses are counted in considering the course load relative to limit of hours (overload). The regular tuition fee is charged to part-time students. Neither grade nor credit is given either at the time the course is audited or thereafter. A grade of AU (audit) will not be entered on the student's permanent record card if he seldom attended classes. A change of registration from credit to audit or from audit to credit must be accomplished by the end of the fifth week of semester classes.

## Arrangement of Schedules

Each student arranges a semester program of courses in consultation with, and by approval of, his faculty adviser. Students already in attendance do this during preregistration periods. New students accomplish this on orientation days.

## Limit of Hours

To be classified as full-time, a student must take at least twelve semester hours of work. Sixteen semester hours of academic work is the maximum permitted without approval of the adviser and special permission of the registrar. Audited courses are counted in determining the course load, but physical education and RSS 110 (Reading and Study Skills) are not.

## Academic Classification

Students are classified academically at the beginning of each year. Membership in the sophomore, junior or senior classes is granted to students who have earned a minimum of 28,56 or 84 academic semester hours credit respectively.

> Administrative Regulations

The rules of the college are designed to provide for proper regulation of the academic community. The rules and regulations as stated in this bulletin are announcements and in no way serve as a contract between the student and the college. Attendance at the college is a privilege and not a right. The student by his act of registration concedes to the college the right to require his withdrawal any time deemed necessary to safeguard the ideals of scholarship and character. and to secure compliance with regulations. It is expected that the conduct of all campus citizens will conform to accepted standards. All students are required to respond to communications sent by any duly constituted authority of the college.

## Academic Dishonesty

Instances of open and conclusive academic dishonesty are dealt with in accordance with the following regulations: for the first offense the faculty member shall have the authority to fail the student in the course; for the second offense the student shall be failed in the course and additional action taken, up to and including expulsion from college, if deemed warranted by the dean of the faculty; for the third offense, if the second act of dishonesty did not warrant expulsion in the opinion of the dean of the faculty. the student shall be failed in the course and expelled from the college.

## Transcripts

Each student, former student, or graduate is entitled to one transcript of his college record without charge. For each copy after the first, a fee of two dollars is charged.

## Regulations Regarding Academic Probation, Suspension, Dismissal, Withdrawal

A. Probation

A student can be placed on academic probation by the dean of the faculty or suspended or dismissed if his academic standing fails to come up to the grade-point average shown in the following table:

|  |  |  | Suspension or <br> dismissal |
| :--- | :--- | :---: | :---: |
| lst semester | $\ldots \ldots \ldots \ldots$ | 1.25 |  |
| 2nd semester | $\ldots \ldots \ldots \ldots$ | 1.50 | 1.25 cumulative |
| 3rd semester | $\ldots \ldots \ldots \ldots$ | 1.65 |  |
| 4th semester | $\ldots \ldots \ldots \ldots$ | 1.75 | 1.50 cumulative |
| 5th semester | $\ldots \ldots \ldots \ldots$ | 1.75 |  |
| 6th semester $\ldots \ldots \ldots \ldots$. | 1.75 | 1.65 cumulative |  |
| 7th \& 8th semesters $\ldots .$. | 1.75 | in all courses |  |

A student placed on academic probation is notified of such status by the dean of the faculty and informed of the college regulations governing probationers. Students on probation are expected to regulate their work and their time so as to make a most determined effort to bring their performance up to the required standard.

## B. Suspension

1. A student who obviously fails to achieve at a level commensurate with his measured ability may be suspended for at least one semester.
2. A student suspended for academic reasons is not eligible for reinstatement for at least one semester, preferably two.
3. A student seeking reinstatement to Lebanon Valley College must apply in writing to the dean of the faculty.
4. Students suspended for academic reasons are not permitted to register for work in the auxiliary schools except for the most compelling reasons and then only with the approval of the registrar.
5. A student may be suspended without a prior period on probation.
6. A student twice suspended for academic reasons shall be considered for readmission, upon application, only if the following conditions are fulfilled: (a) He shall present firm evidence of renewed interest and motivation. (b) He shall have completed a significant amount of transferrable academic work at an accredited institution subsequent to his second suspension. (c) He shall be readmitted on probationary status on recommendation of the appropriate academic department. The student shall achieve at such a level as will make likely the successful completion of this program or he will be subject to dismissal.

## C. Dismissal

A student dismissed for academic reasons is not eligible for readmission.

## D. Withdrawal from College and Readmission

Official withdrawal from the college is accomplished only by the completion of withdrawal forms obtained from the registrar. This is the sole responsibility of the student.

Application for readmission will be considered only if the formal withdrawal procedure has been followed at the time of withdrawal.

## Class Attendance

Each student is held responsible for knowing and meeting all requirements for each course, including regular class attendance. Because of differences in various disciplines, specific regulations governing class attendance are set by each department, approved by the dean of the faculty. and administered by the instructor. At the opening of each course the instructor will clearly inform students of class attendance regulations. Violations of regulations will make the student liable to being dropped from the course with a failing grade, upon the recommendation of the instructor and with the approval of the registrar.

In case of a short absence from class because of illness and for most other reasons, the student speaks directly with the instructor concerning the absence, whether anticipated or not, even if an examination has been scheduled. The student informs the registrar only if the absence could not be anticipated and the period of absence will be a week or more. The registrar informs faculty members of students who will be absent from classes because of participation in official functions of the college. Students on academic probation are permitted only excused absences.

Excused absences do not absolve students from the necessity of fulfilling all course requirements.

## Hazing

Hazing is strictly prohibited. Any infringement by members of other classes upon the personal rights of freshmen as individuals is interpreted as hazing.

## Cars and Student Parking

All cars owned or operated by Lebanon Valley College students must be registered. Violations of established parking regulations will result in fines and may result in suspension or revocation of parking privileges.

Admin. Reg.


## Courses of Study

## COURSE CREDIT

The number of credits that a specific course carries is also indicated in italics at the end of the course description. Some courses carry variable credit. Some courses carry no credit. Some courses require both classroom and laboratory work. Some courses may be taken more than once for credit (i.e., most independent study courses, some special topics courses, and others) and are so indicated in italics (e.g., 1-3 credits per semester. Maximum of 9). Students should consult registration schedules for hour requirements.

## FREQUENCY OF OFFERINGS

Not all courses are offered each year. Some courses are offered on demand only. Students should consult registration schedules for each semester's course offerings.

## PREREQUISITES

Some courses require prerequisites which are designated in italics at the end of the course description.

## SPECIAL TOPICS

All departments may offer Special Topics courses in their curricula. These courses are intended to enrich the departments' programs by providing opportunities for the study of subjects which, while not normally dealt with in regular courses, are worthy of inclusion in a liberal arts education. Since the content and credit varies, students should consult a registration schedule to ascertain current offerings.

## COURSE NUMBERING SYSTEM

The first digit of the course number indicates the academic year in which the course is normally taken. (A first digit of 1 may also indicate that the course may be taken by freshmen even though it is usually taken by sophomores, juniors or seniors.) A first digit of 5 is used for courses in private music instruction and independent study courses. Course numbers for music organizations begin with 6 .
A course is offered in the first semester if the third digit is an odd number, in the second semester if it is an even number. A course with 0 as a third digit is a one-semester course offered in either or both semesters.

A comma separating the numbers of two courses with a common title indicates that the first course (offered in the first semester) is a prerequisite to the second course (offered in the second semester). A slash (/) separating the numbers of two courses with a common title indicates that the first course is not a prerequisite for the second course.

## General Information

The Art Department, although not constituted as a department offering a major, is committed to providing the opportunity and the environment for creative expression and a richer understanding of man's accomplishments in the visual arts. Exposure to art as an area of humanistic study can develop qualities of insight, imagination, awareness, organization, self-discipline and initiative that are an asset to the individual generally, and to whatever professional career a student may pursue.

The Art Department is responsible, along with student committees and community members, in coordinating the annual Spring Arts Festival on campus.

The monthly College Center Art Exhibit series, under the Art Department's aegis, provides a broad exposure to artists working in a variety of styles and content.


## Courses in Art

110. Introduction to Art. The two and three dimensional arts, including architecture, are analyzed in an attempt to understand the nature of art. The importance of shaping perception is stressed to show how the observer plays an active role in his appreciation of art. 3 credits.
111. Drawing, Painting and Print making. Problems provide an opportunity for students to develop their creative ability. Knowledge is acquired about various media, lechniques and tools. The staff reserves the right to select one example of each student's work for its permanent collection. Prerequisite: Art 110. 3 credits.
112. Art History I, Pre-history through the Middle

Ages. Representalive examples in painting, sculpture and architecture of the major cultures of successive historic periods are considered. Stress is given to the interaction of factors influencing the various forms of visual expressions. Prerequisite: Art 110. 3 credits.
203. Art History II, Renaissance to Twentieth Century. Study of the major forms of the visual arts representative of the Renaissance and succeeding centuries as expressed both by the individual and major schools. These viewed in terms of degree of reflection of the social, ideological, and economic foci of the period. Prerequisite: Art 110. 3 credits.
401. Art in the Elementary School. Introduction to creative art activity for children in elementary school. Topics covered include philosophical concepts, curriculum, evaluation and studio activity involving a variety of art media, techniques and processes. 3 credits.

## Biochemistry

The major in biochemistry is an interdisciplinary program which provides an opportunity for interested students to engage in a comprehensive study of the chemical basis of biological processes. It is designed to prepare students for advanced study in medical, dental, and other professional schools, for graduate programs in a variety of areas including biochemistry, clinical chemistry, pharmacology, molecular biology, genetics, microbiology, and physiology, and for research positions in industrial, academic, and government laboratories.

Departmental honors may be taken in either biology or chemistry.

Degree: B.S. degree with a major in biochemistry.
Major: Biology 111, 112, 201, 202 and/or 307, 306, 401 (24 hours); Biochemistry 421, 422, 430, 480 ( 9 hours); Chemistry 111, 112, 113, 114, 213, 214, 215, 216, 311, 312, 319, 323, (29 or 30 hours); Mathematics 161, 162 or 166 (6 hours); Physics 103 or 111,104 or 112 ( 8 hours).

## Courses in Biochemistry

42 I, 422. Biochemistry I, II. A course in the physical and organic aspects of living systems. Prerequisites: Chemistry 214. 216, and 312 or approval of the departmental chairmen. 3 credits per semester.
430. Biochemistry Laboratory. Investigations of the properties of proteins, nucleic acids, carbohydrates, and lipids. Prerequisites: Chemistry 214, 216. 1 credit.
480. Biochemistry Seminar. Readings, discussions, and reports on special topics in biochemistry. I credit. 500. Independent Study. Intensive library and laboratory study of relevant research problems in the area of biochemistry. Prerequisites or corequisites: Chemistry 311, 312, and the consent of the departmental chaimen. 2-3 credits per semester (Maximum of 9).

The aims of the program for biology majors are 1) to provide students with a thorough understanding of the principles of biology and background in disciplines basic to biology; 2) to develop in students skills in the application of the scientific method and in the retrieval and communication of technical information; and, 3) to provide preparation for students interested in graduate, professional and medical programs.

The department believes that a student, well trained in all areas of science and having an understanding of mathematical methods, chemical techniques and biological theory, has the best chance for success in gaining employment and/or pursuing graduate work.

Graduates of the department have entered professional schools of the health professions, as well as graduate schools with programs in anatomy, hospital management, various ecology concentrations and wildlife management, to name a few. Graduates of the environmental biology concentrations are employed in the areas of marine biology, waste water analysis and environmental impact analysis. Graduate schools represented include Cornell, Clemson, Duke, University of Georgia, Virginia Institute of Marine Sciences and many others.

Students who dò not attend graduate or professional school find employment in university and medical research laboratories, aquaculture programs, ecological consulting firms, environmental educational centers, pharmaceutical firms, quality control in laboratories in industry, private and public education, veterinary laboratories, and state and federal environmental control agencies.

## PROFESSIONAL AND PRE-PROFESSIONAL PROGRAMS

Specific professional and preprofessional programs are available which can be entered before or after a typical freshman year as a biology major. A list of these programs together with the degrees and majors follow.
Cooperative Programs: Forestry and Environmental Studies: B.S. degree with a major in biology and MF or MEM. Medical Technology: B.S. in Medical Technology degree. Nuclear Medicine Technology: B.S. degree with a major in ruclear medicine technology. Podiatry: B.S. degree with a major in biology, and DPM.
Environmental Biology: Botany and zoology, ecology, and marine biology. B.S. degree with a major in biology.

Health Professions: Dentistry. Medicine, Optometry, Osteopathy. Pharmacy. Podiatry and Veterinary Medicine. B.S. degree with a major in biology (or other major).
Nursing: A B.S. degree with a major in nursing.
Secondary Teacher Certification: A program accredited by the Commonwealth of Pennsylvania is available. B.S. degree with a major in biology.

## INTERNSHIPS

Internships with qualified professionals in a student's area of interest are taken under Bi 451/ 452. Special Topics I, II. Currently, positions are available in consenation, environmental education, veterinary medicine, and water quality control. Additional internships may be developed upon demand.

Degree: B.S. degree with a major in biology.
Major: Biology 111, 112, 201, 302 or 307, 411 or 412; one course each in the general areas of physiology. cellular and subcellular biology, and morphology: and four additional hours of biology for a minimum of 33 hours. Also required are two years of chemistry: Physics 103, 104, or 111, 112; and Mathematics 161 or 111.

## Courses in Biology

101/102. Introduction to Biology I, II. These courses. designed for the non-science major, place emphasis on the mastery of certain biological principles which are inherent in living material. These principles are then applied to specific organisms with special stress placed on the study of human biology. The laboratory includes exercises in anatomy, physiology, embryology, genetics, and ecology. L'nless otheruise noted, Biology 111/112 are prerequisites for all courses beyond the Biology 112 level. 3 credits per semester.
111/I12. General Biology I, II. A rigorous study of basic biological principles at the cellular, organismal and population levels. 4 credits per semester.
201. Genetics. A study of the principles. mechanisms and concepts of classical and molecular genetics. The laboratory stresses the demonstration of the key concepts of heredity utilizing both a classical and molecular approach. Prerequisites: Biology 111 and one year of chemistry. 4 credits.
202. Animal Physiology. A study of the principles of vertebrate body function. Emphasis is placed upon the mechanisms by which cells and organs perform their functions and the interaction of the various organs in maintaining total body' function. Prerequisites: Biology 101 or 112. 4 credits.
302. Survey of the Plant Kingdom. The development and diversity of plants and the relationships between them. Field and laboratory work will familiarize the student with the morphology of plants and with the identification of flowering plants in the local flora. Prerequisite: Biology 112 or permission of instructor. 4 credits.
304. Developmental Biology. The study of basic descriptive phenomena in the development of typical invertebrate and vertebrate embryos will be extended into consideration of modern embryological problems. 4 credits.
305. Vertebrate Histology and Microtechnique. Microscopic anatomy of vertebrate tissues illustrating basic tissue similarities and specialization in relation to function. The laboratory work includes the preparation of slides utilizing routine histological and histochemical techniques. 4 credits.

306. Microbiology. A study of the morphology, physiology, and biochemistry of representative microorganisms. Prerequisite: Three semesters of chemistry. 4 credits.
307. Plant Physiology. A study of the functioning of plants with emphasis on vascular plants. Prerequisite: Three semesters of chemistry or permission of the instructor. 4 credits.
308. Comparative Chordate Anatomy. The comparative anatomy of chordates with particular attention given to the correlation of structure to habitat. Laboratory work involves dissection and demonstration of representative chordates. 4 credits.
309. Fundamentals of Ecology. The fundamental concepts of ecology are examined with emphasis placed on the interaction between organisms and their biological and physical environment in selected ecosystems - freshwater. marine, and terrestrial. 4 credits.
400. Internship. Provides on-site research and study opportunities in medical research, veterinary medicine and applied ecology (conservation, forestry: and water quality control). Prerequisite: Permission of the staff. 1-4 credits per semester.
401. Cell Physiology. The functioning of cells. Energetics. mechanisms and control of cell transport, metaholism. and irritability. Includes biological rhythms and photophysiology. Prerequisite: Three semesters of chemistry or permission of the instructor. 4 credits.
402. Invertebrate Zoology. Representatives of most of the inverlebrate phyla are studied with a phylogenetic approach, concentrating on movement, metabolism, infor-
mation and control. reproduction and association between animals. 4 credits.
409. Quantitative Ecology. An intense study of basic ecological processes emphasizing quantitative field work at population and community levels in selected freshwater, marine and terrestrial ecosystems. Prerequisite: Permission of the instructor. 4 credits.
41 1/412. Biology Seminar I, II. Reading, discussions. and reports on special topics in biology. I or 2 credits per semester.
451/452. Special Problems I, II. Provides a range of topics for individual students with special interests not covered in formal courses. Prerequisite: Permission of the staff. 1-3 credits per semester.
453/454. Special Topics in Nursing I, II. Research and a detailed report on a topic of interest relating to the nursing profession. Topics may include aspects of special types of nursing health care, the epidemiology of a particular disease, mental disorders, social issues in health care. or any other pertinent topic. Prerequisite: Permission of the instructor. 1-3 credits per semester. (Maximum of 6).
500. Independent Study. Limited to students majoring in biology who have had ample courses in the department and whose records indicate that they can be encouraged to take part in research or can work independently on research problems in which they have a special interest. Biology 500 may lead to departmental honors for qualified students. Prerequisite: Permission of staff. 1-3 credits per semester. (Maximum of 9).

In keeping with the aim of the college, the Department of Business Administration's program of study is designed to provide majors in accounting, business administration, and economics with a broad liberal education, so that graduates of the department will play a more active role in the changing world of ideas and actions, coupled with a sound and integrated knowledge of the essential principles and problems of accounting, business administration and economics.

Regardless of major, a set of core courses is required for all, so that everyone will have a common framework of reference as well as common tools of analysis to pursue special interests within their particular major. The department offers three majors: accounting-a tool for analyzing business performance and making practical management decisions; business admin-istration-a study to prepare for making management decisions and to gain an understanding of contemporary business practices; and economics a theoretical and empirical study of the economic well-being of mankind and society in terms of stable growth in real income, full employment, and optimum allocation of resources.

Classroom experience is supplemented by various major-related activities including an annual field trip for departmental upperclassmen to New York and Washington financial and business

> Business Administration
centers; internships for qualified upperclassmen in local business and industry; and special projects involving both primary and secondary research methods as well as computer assisted instruction.

Majors in accounting can look forward to professions in the areas of public accounting, taxes, government, banking, financial analysis, corporate accounting, not-for-profit accounting, teaching, consulting, and systems analysis.

Majors in business administration may seek employment in consulting, retailing, productive management, government, wholesale and distribution, advertising, transportation, and teaching.

Majors in economics anticipate careers in government, banking, public utilities, teaching, and industry.

A number of graduates of all three majors attend graduate and professional schools, and work in a variety of businesses and industry including Aetna Life Insurance, DuPont, Reliance Insurance, and AMP, Inc. Other students work for a number of small accounting firms, banks, familyowned businesses or are self-employed.

Degree: B.S. degree with a major in accounting or business administration or economics.
Majors: (Core Courses) Accounting 151, 152; Business Administration 180; Economics 110, 120, 201, 222; Accounting or Business Administration or Economics 490; a Computer/ Computer Applications course; Mathematics 160, 170; and English 215.
(Accounting or Business Administration) Core courses plus Business Administration 361 and 15 additional credits in the particular major area for a minimum of 54 hours.
(Economics) Core courses plus Economics 203 and 15 additional credits in the major area for a minimum of 54 hours.

## Courses in Accounting.

151. Principles of Financial Accounting. A beginning course in accounting. Common business transactions are recorded in various journals and summarized in general and subsidiary ledgers. The effects of these transactions are reported in classified financial statements. 3 credits.
152. Principles of Managerial Accounting. Emphasis is placed on the accumulation and analysis of financial data for management purposes. Prerequisite: Accounting 151.3 credits.
153. Intermediate Accounting I. An advanced course in accounting principles stressing statement presentation and valuation problems in presenting assets, liabilities, and stockholders' equity on the statements. Prerequisite: Accounting 152.3 credits.
154. Intermediate Accounting II. Emphasis is placed on the analysis of financial statements, effects of error on statements, preparation of funds flow statements, and price level adjustments. Prerequisite: Accounting 251. 3 credits.
155. Advanced Accounting. Includes a study of partnerships, installment sales, consignment sales. home branch office relationships, business combinations, special problems of consolidations, foreign subsidiaries and branches. and fiduciary accounting. Prerequisite: Accounting 252. 3 credits.
156. Government and Non-Profit Accounting. Basic concepts of fund and budgetary accounting used to account for the financial activities of federal. state, and local government units and systems for achieving accounting and administrative controls for service organizations, such as hospitals, educational institutions, and other non-profit organizations. Prerequisite: Accounting 152. 3 credits.
157. Internship. Field experience in a business, government or other organization in some area of accounting. Ordinarily a few juniors will be chosen for the available internships by the departmental faculty. 3-9 credits.
158. Individual Income Tax Accounting. Analysis of the federal income tax law's as they apply to individuals; case problems, preparation of returns. Prerequisite: Accounting 152. 3 credits.
159. Corporate Income Tax Accounting. Analysis of the federal income tax laws as they apply to corporations, partnerships and fiduciaries; case problems, preparation of returns. Prerequisite: Accounting 451. 3 credits.
160. Cost Accounting. Emphasis is placed on costing for planning and control. including cost-volume-profit analysis, budgeting and inventory control. Prerequisite: Accounting 152.3 credits.
161. Advanced Cost and Managerial Accounting. Topics to be covered include capital budgeting, standard
costing, relevant costs, joint and by-product costing. Prerequisite: Accounting 453.3 credits.
162. Auditing. Involves a study of professional ethics and legal responsibilities of public accountants, generally accepted accounting principles, and auditing procedures. Prerequisite: Accounting 252.3 credits.
163. Seminar and Special Problems. A capstone course involving a computer simulation that integrates the concepts of accounting, economics, and business administration. Financial statement preparation is an essential segment of the course. Required of all accounting majors. Prerequisites: Business Administration 361. Accounting 252. 3 credits.
164. Independent Study. A course designed for students in the departmental honors program and other qualified students who wish to undertake the independent study in a specific area of accounting. $1-6$ credits.

## Courses in Business Administration

100. Introduction to Business. An orientation to the nature and environment of business, its structure, organization, functions and opportunities. Provides an integrated framework for further study in accounting. finance, marketing, and management. (Not open to seniors.) 3 credits.
101. Principles of Management. A study of the process of utilizing and coordinating all available resources in order to achieve the objectives of a business, governmental, educational, social, or religious organization. Includes discussions and cases on decision making, planning, organizing, staffing, motivation, leadership, control, and communication. 3 credits.
102. Insurance I. Insurance principles and coverages available for the protection of property and liability losses, fidelity and surety bonding. 3 credits.
103. Insurance II. Introduction to principles and methods of handling business and personal risks with emphasis on life, health, and social insurance techniques. 3 credits.
104. Real Estate I. Examination of real estate and the market forces affecting it; finance, sales and brokerage operations. 3 credits.
105. Small Business Administration. The pros and cons of a small business, including the legal and tax ramifications. Prerequisites: Accounting 152, Business Administration 180.3 credits.
106. Marketing. A study of the marketing system within an economy in terms of an efficient use of resources and the distribution from producers to consumers according to the objectives of the society; performance of business activities to direct the flow of goods and services to satisfy customer needs. Includes market research, product development, packaging, distribution, promotional activities, sales management, and price policy. To bridge the gap between the understanding and the application of marketing principles, students are required to prepare and discuss a number of cases pertaining to some specific areas of marketing. Prerequisite: Business Administration 180.3 credits.

107. Personnel Administration. Examination of the problems in effectively selecting, utilizing, developing, and managing human resources from the viewpoint of the total organization. Prerequisites: Business Administration 180. 3 credits.
108. Behavioral Theory in Management. A detailed study of organizational behavior theories and models with an emphasis upon the practical application of these models toward improving individual, group and organizational performance. 3 credits.
109. Corporation Finance. A study of financial management covering analysis of asset, liability and capital relationships and operations; management of current assets, working capital, cash. liquid assets, receivables, inventory; capital planning and budgeting; capital structure and dividend policy; short and intermediate term financing; long term financing, external and internal; mergers and acquisitions; multinational operations; and corporate failures and liquidation. Prerequisite: Accounting 152. 3 credits.
110. Investments. Development and role of investment and its relation to other economic, legal, and social institutions. Includes discussion of investment principles, machinery, policy. and management; types of investment, and the development of portfolios for individuals and institutions. Prerequisite: Business Administration 361.3 credits.
371/372. Business Law I, II. Elementary principles of law as they relate to the field of business. Contracts, agency, employment, commercial paper, personal property, sales, security, devices, insurance, partnerships, corporation, real estate, estates, bankruptcy, and government regulations are discussed. 3 credits per semester.
111. International Business Management. A study of the management techniques and procedures necessary in international and multinational organizations. Prerequisite: B4 282.3 credits.
112. Marketing Management. Market-oriented problems of firms; identification and selection of market opportunities; formulation of competitive strategies; marketing policies and programs. Prerequisite: Business Administration 282.3 credits.
113. Marketing Research. Research in the marketing decision-making process. Scientific method, problem delineation, research design, data collection techniques, product development. Prerequisite: Business Administration 282. 3 credits.
114. Principles of Advertising and Retail Management. A promotional tool in marketing, creative elements, media, effectiveness, integration within the marketing plan. Analysis of retail institutions with regard to market structure, merchandise selection, locational selection, competitive factors and marketing strategy. Prerequisite: Business Administration 282.3 credits.
115. Operations Management. Methods for analyzing alternatives aimed at optimizing scarce resources. Emphasis in standards, measures, processes, and systems. Prerequisite: Economics 223. 3 credits.
116. Internship. Field experience in a business, government or other organization in some area of business administration. Ordinarily a few juniors will be chosen for the available internships by the departmental faculty. 3-9 credits.
117. Business Strategy. A capstone course to enable the mature student to interpret business policies and strategies in light of the larger environment and demands of profitability: social responsibility and individual rights as required in the successful management of a company, institution or organization. 3 credits.
118. Seminar and Special Problems. Reading, discussion, and research in business administration under the direction and supervision of the departmental staff. Required of all business administration majors. Prerequisite: Business Administration 361.3 credits per semester.
119. Independent Study. A course designed for students in the departmental honors program and other qualified students who wish to undertake independent study in a specific area of business administration. 1-6 credits per semester.

## Courses in Economics

110. Principles of Economics I. An introductory study' of economic principles and the American economy with emphasis on the elementary concepts of national income, price level, business fluctuations, banking activities, money supply, and economic growth. 3 credits.
111. Principles of Economics II. An introductory study of economic principles and the American economy
with emphasis on the elementary concepts of consumption function, production function, product pricing, factor pricing, resource allocation, labor economics, public finance, and international economics. 3 credits.
112. Economics of Public Issues. A sunvey and economic analysis of public issues. 3 credits.
113. Consumer Behavior. A study of the reciprocal effects of economics and behavior with particular emphasis upon motivational factors in economic behavior. 3 credits.
114. Microeconomic Analysis. Economic decisionmaking of firms and resource allocation of an economy: a core course studying tools of analysis for students in economics, business, accounting, and related areas or disciplines. 3 credits
115. Macroeconomic Analysis. Theoretical and empirical study of national income and business cycles. 3 credits.
116. Quantitative Methods. Development and application of mathematical concepts and statistical methods to the analysis of theory and the resolution of problems in economics and business administration. Prerequisite: 6 credits of math courses satisfactory to the Department.
117. Labor Economics and Industrial Relations. Theoretical analysis of labor market functioning including impact of unionism. government policy, demographic trends, etc.; human capital theory; measurement of the labor force and data sources; history of the American labor movement; U.S. legislation affecting industrial relations; collective bargaining process and the system of industrial jurisprudence. Prerequisite: Economics 201 or permission of the instructor. 3 credits.
118. Money and Banking. Nature and functions of money and credit. Development and role of commercial banking and central banking. Structure and functions of the Federal Resene System. Monetary and banking theory: policy, and practice. Influence on prices, level of income and employment and economic stability and progress. 3 credits.
119. Public Finance. Revenues and expenditures and economic functioning of the federal, state, and local governments; principles of taxation-shifting. incidence, and burden; influence on incentives, income distribution, and resource allocation; economic and social aspects of public spending; budgetary control and debt management; fiscal policy and economic stability. 3 credits.
120. International Economics. A study of theories and empirical analysis of international trade; capital movement; mechanism for attaining equilibrium; economic policies such as tariff, quota, monetary standards and exchange rate, state trading, cartel, and other international economic agreements. 3 credits.
121. Internship. Field experience in a business, government or other organization in some area of economics. Ordinarily, a few juniors will be chosen for the available internships by the departmental faculty. 3-9 credits.
122. History of Economic Thought. The evolution of economic thought through the principal schools from mer- analysis of the various theories of value, wages, interest. rent, profit, price level, business cycles, and employment. and to the influences of earlier economic ideas upon current thinking and policy-making. 3 credits.
123. Economic Growth and Development. Analysis of classical and modern theories and models of economic growth; study of theory and implications of alternative development policies. 3 credits.
124. Seminar and Special Problems. Reading, discussion, and research in economics under the direction and supervision of the departmental staff. Required of all economics majors. Prerequisite: Economics 201 or 202.3 credits per semester.
125. Independent Study. A course designed for students in the departmental honors program and other qualified students who wish to undertake independent study in a specific area of economics. $1-6$ credits per sentester.

The aims of the Department of Chemistry are to provide students majoring in chemistry with rigorous training in the principles and applications of modern chemistry.

The Department of Chemistry offers two degrees for students who major in chemistry: the Bachelor of Science degree with a major in chemistry and the Bachelor of Science in chemistry degree which meets the requirements of the American Chemical Society for the training of chemists for industry and for advanced study in chemistry. Both degree programs offer the necessary preparation for students to become industrial chemists; to enter masters and doctorate programs in chemistry and related fields; to enroll in professional schools of medicine. dentistry, optometry, osteopathic medicine, or podiatry; or to teach chemistry.

The chemistry courses are designed to present the interaction of theoretical and experimental chemistry. In all laboratory courses, special emphasis is given to the use of instrumentation including extensive instruction in computer programming and interfacing. A required independent study course for senior chemistry majors is designed for the investigation of basic or applied research problems involving both library research and laboratory work. Opportunities are available for all students to do additional laboratory work in conjunction with their chemistry courses.

During their college careers, students have many opportunities to work independently. Some students participate in research programs funded by such organizations as the Petroleum Research Fund or Research Corporation. These students often become coauthors on research papers published in the chemical journals in addition to presenting papers at student research conferences.

There are also opportunities for some students to gain practical work experience in local industries such as Alcoa and Michter Distilleries. Such experience during college prepares


## Chemistry

students for entering industry and government service upon graduation. Recent graduates have accepted positions with such industries as General Electric, American Cyanamid, Borg-Warner, and Sterling Drugs.

Our graduates have also enrolled in such institutions as Temple University Medical School, Jefferson Medical College, Philadelphia College of Osteopathy, the School of Medicine of the University of Pittsburgh, the University of Pennsylvania Dental School, Philadelphia School of Pharmacy, the Medical College of Pennsylvania, and Philadelphia College of Podiatry.

Graduate programs in which recent chemistry graduates have enrolled include Arizona State University (physical chemistry), Drexel University (inorganic chemistry), Indiana University at Bloomington (organic), Lehigh University. Michigan State University, Ohio State University and University of Florida (biochemistry), Northwestern University (business administration, physical chemistry). Pennsylvania State University (environmental engineering), Purdue University (analytical chemistry), University of California at Berkeley (physical chemistry), University of California at Los Angeles (computer science). University of Maryland (environmental chemistry), University of Pennsylvania (physical chemistry and biochemistry). University of Pittsburgh (biochemistry and forensic chemistry), and the University of Wisconsin (theoretical mathematics).

Degrees: B.S. degree with a major in chemistry. B.S. in Chemistry degree (American Chemical Society certification)

Major: Chemistry 111 (or 115H), 112, 113, 114, 200, 213, 214, 216, 311, 312, 314, 315, $316,319,321,322$, and four hours of 500; Mathematics 161,162 ; Physics 111 and 112 for a total of 53 hours.
B.S. in Chemistry (certified by the American Chemical Society): Chemistry 111, (or 115H), $112,113,114,200,213,214,216,311,312,314,315,316,319,321,322,411,412,413,414$, and 4 hours of 500; Mathematics 161, 162; Physics 111 and 112 for a total of 65 hours.

## Courses in Chemistry

101. Chemistry as Science and Technology. A semiquantitative presentation of the basic concepts of chemislry designed to give the student some understanding of the role of chemistry as science and technology in society today and tomorrow. 3 credits.
102. Chemistry, The Individual, and Society. The course will attempt to show the relationship of chemistry to olher disciplines, as well as to government and politics. A problem or question would be presented, and facts and information from pertinent disciplines brought to bear to enable the students to reach a rational solution. 3 credits.
103, 104. Experimental Chemistry. Laboraton' course to accompany 101 and 102 respectively. Prerequisite or corequisite: Chemistry 101 and or 102.1 credit per semester.
II1, 112. Principles of Chemistry I, II. A systematic study of the fundamental principles and concepts of chemistry. 4 credits per semester.
I13, 114. Introductory Laboratory Investigations
I, II. Laboratory courses to accompany 111 and 112 re-
spectively. Prerequisite or corequisite: Chemistry 111 and/ or 112.1 credit per semester.
103. Special Topics. Designed for those students who have a special need for a laboratory, lecture, and/or reading experience involving content and/or approach significantly different from the course offerings of the department. Open to any student with permission of staff of the department. 1-3 credits.
213, 214. Organic Chemistry I, II. An introduction to the structure, nomenclature, and properties of the major classes of organic compounds with emphasis on the principles and reaction mechanisms describing their behavior. Prerequisite: Chemistry 112. \& credits first semester. 3 credits second semester.
215, 2 I6. Laboratory Investigations I, II. Investigations of methods of synthesis and analysis of organic compounds including some physical-organic studies. Prerequisite: Chemistry 213. Corequisite: Chemistry 214. 1 or 2 credits.

311, 312. Physical Chemistry I, II. A course in the physical theories of matter and their applications to systems of variable composition. Prerequisites: Chemistry 214. Mathematics 162, and Physics 112. 3 credits per semester.
314. Instrumental Analysis. A consideration of the use of instrumental analytical methods including spectrophotometric, electroanalytical, coulometry, and polargraphy. Prerequisites: Chemistry 311 and 319. Corequisite: Chemistry 312. 3 credits.
315, 316. Laboratory Investigations II, III. Use of instrumental techniques for investigating chemical systems. Prerequisites: Chemistry 214 and 216. Corequisites: Chemistry 311, 312. 1 credit per semester.
319. Chemical Equilibria. A rigorous mathematical description of the role of a chemical equilibrium in chemical systems emphasizing reactions involving ionic substances and using modern analytical methods. Prerequisites: Chemistry 214 and 216. 4 credits.
321, 322. Laboratory Investigations IV, V. Physical-chemical investigations of chemical systems. Corequisite: Chemistry 311 or 312.1 credit per semester.
323. Chemical Equilibria Laboratory. A laboratory study of the application of equilibrium concepts to chemical systems. Corequisite: Chemistry 319. I credit.
411, 412. Advanced Inorganic Chemistry I, II. An advanced course applying theoretical principles to the understanding of the descriptive chemistry of the elements. Prerequisite: Chemistry 312.3 credits per semester.
413. Advanced Analytical Chemistry. A study of advanced topics in analytical chemistry. Prerequisites: Chemistry 312 and 314.3 credits.
414. Advanced Organic Chemistry. A consideration of the structure of organic compounds and the mechanisms
of homogeneous organic reactions. Prerequisites: Chemistry 214. 216, and 312.3 credits.
421, 422. Biochemistry I, II. A course in the physical and organic aspects of living systems. Prerequisites: Chemistry 214, 216, and 312 or approval of the departmental chairman. 3 credits per semester.
425. Qualitative Organic Analysis. Presentation of the principles and methods of arganic analysis. Prerequisites: Chemistry 214 and 216. 2 credits.
426. Advanced Physical Chemistry. A presentation of advanced topics in chemistry from such areas as quantum mechanics, thermodynamics, and kinetics. Prerequisite: Chemistry 312.3 credits.
430. Biochemistry Laboratory. Investigations of the properties of proteins, nucleic acids, carbohydrates, and lipids. Prerequisites: Chemistry 214 and 216. 1 credit.
480. Biochemistry Seminar. Readings, discussions, and reports on special topics in biochemistry. 1 credit.
490. Internship. Supervised chemistry laboratory experience in an industry, government agency, or hospital. Participants will be selected by members of the department. Prerequisites: Chemistry 312 and 322. 1-6 credits.
500. Independent Study. Intensive library and laboratory study of special interest to advanced students in the major areas of chemistry. For students majoring in biochemistry, intensive library and laboratory study of relevant research problems in the area of biochemistry. For students preparing for secondary school teaching, the emphasis is placed on methods of teaching chemistry. Prerequisites: Chemistry 311. 312, and the consent of the chairman of the department. 2 or 3 credits per semester. ('Maximum of 9 for students in honors program).

Courses in computer programming are offered for the student who may need to use the college PDP 11/70 computer in courses in business, mathematics and the sciences.

## Courses in Computer Programming

110. Introduction to Timesharing. 5 weeks. An introduction to timesharing and language concepts with an emphasis on the use of the LVC PDP $11 / 40$ computer system. No credit.
111. BASIC-PLUS Programming. 10 weeks. A study of the BASIC-PLUS language to include strings, matrices and functions as well as traditional algorithms demonstrating search and sort techniques. Prerequisite: Computer Programming 110 or permission of the instructor. 1 credit.
112. Computers and Programming. An introduction to the techniques of computer programming and to the designs, uses, capabilities, and implications of computers. 3 credits. Note: Fortran $I V$ is available but will not be taught in these courses. Students who have taken CP 150 will receive only two semester hours of credit for CP 170.


## Computer Programming

## Computer Science

(See Mathematical Sciences)

Comp. Programming 65

## ELEMENTARY EDUCATION

Students who may be concerned about the oversupply of elementary school teachers should be aware that there is always a demand for well-trained and conscientious teachers. The high school graduate who enjoys working wth children should be encouraged to participate in Lebanon Valley College's teacher training program which includes training in all phases of teaching, and sufficient individualized attention to each student for realizing his full potential. The elementary education program is field-centered. Students have opportunities both voluntarily and required to work with children in schools throughout their college years.

As a freshman, a student will spend two hours a week observing and assisting in an elementary school. As a sophomore, a student gives two volunteer hours a week in assistance in an elementary classroom. In a student's junior year, one hour per week is spent tutoring a child or a small group of children in reading, as partial requirements for the teaching of reading course. Two volunteer hours per week of the junior year are spent in assignment as a student aide. During the senior year, the first semester is spent in full-time student teaching. The second semester provides opportunities to work with nursery school children and with classes for exceptional children.

In the student teaching semester, the careful selection of the cooperating teacher is crucial. Every attempt is made to match the student teacher with a cooperating teacher who is compatible in personality, philosophy, and goals of education. The teacher education program emphasizes the developmental process of the whole student in preparation for teaching the whole child.

Degree: B.S. degree with a major in elementary education.
Major: Elementary Education 220, 270, 332, 341/342, 344, 361/362, 440, 444; Art 401; Geography 111; one of the following: History 111, 112, 125, 126; Psychology 321, for a total of 51 hours.

## Courses in Elementary Education

220. Music in the Elementary School. Fundamentals of music, varied approaches for developing conceptual learning, movement, playing classroom instruments. introduction of Orff and Kodaly lechniques. creative applications, guided listening, the child voice, materials for use in interest centers in elementary school, beginning with early childhood. 3 credits.
221. Mathematics for the Elementary Grades. An inlroduction to the fundamental concepts of mathematics taught in early childhood. elementary and middle school. 3 credits.

## 260. Principles and Practices in Early Childhood

 Education. Sludy of three differing types of early childhood programs-Montessori, Piaget and Open Classroomincluding their theories, materials, curricula and methods. Course will include field experience in local programs, and preparation of a prepared plan for teaching in one type of program. 3 credits.270. Children's Literature. A study of the literature of childhood, including early childhood. Attention is given to children's reading interests, criteria and aids in selecting

materials, a survey of the development of children's literature, and the art of storytelling. 3 credits.

## 332. The Physical Sciences in the Elementary

 School. Appropriate teaching methods and materials in math and science and their application in the early childhood and elementary school classroom. Prerequisites: Elementary Education 250 and one year of a laboratory science. 3 credits.341/342. Teaching of Reading 1, II. A study of the problems and procedures of instruction in the development of basic reading skills from the readiness programs of Early Childhood Education to the more comprehensive techniques required for the teaching of reading in the elementary and middle schools. Effective reading programs, teaching and learning materials, and research studies in this field are investigated and evaluated per semester. Prerequisite: Elementary Education 270.3 credits.
344. Health and Safety Education. The course includes a study of basic health and safety practices and procedures as applied to the elementary school. a program of physical education for elementary school children, an American Red Cross-approved program of first aid, and an evaluation of sources and use of materials. Prerequisites: Education 110; Psychology 220. 3 credits.

361/362. Communications and Group Processes in the Elementary School I, II. Deals with the fundamentals for language growth in areas of oral and written expression, beginning with early childhood. Planned to assist teachers in helping children communicate effectively and responsibly in a creative manner, in growing toward self understanding, and in developing satisfying interpersonal relationships. The use of taried group processes in multifaceted settings is emphasized. 3 credits per semester.
440. Student Teaching. Each student spends an entire semester in a classroom of an area public school under the supervision of a carefully selected cooperating teacher. Open to seniors only. A cumulative grade-point average of 2.0 during the first six semesters in college is required. Prerequisites: Education 110: Psychology 220; Elementary Education 270, 332, 341/342, and 361/362. 12 credits.
444. Senior Seminar. Special topics related to pertinent problems in student teaching or to further professional growth in the profession are researched. 3 credits.
500. Independent Study. A course designed for the student who desires to engage in independent study whether enrolled in the departmental honors program or not. 1-3 credits per semester. (Vaximum of 9).

## SECONDARY EDUCATION

There is no separate major for those interested in secondary education. Interested students major in a subject area and also enroll for courses in the Education Department. This program is designed to meet the requirements for teacher certification in Pennsylvania and neighboring states.

Those students desiring teacher certification must complete a minimum of 18 credits in professional courses together with the approved program in the subject field to be taught. Education 110 senves as an introduction to the secondary classroom, with each student being assigned to work as a student aide in a nearby secondayy school.

During the senior year one semester is designated as a professional semester. The student enrolls in the following courses:

Ed. 420: Human Growth and Development.
Ed. 430: Practicum and Methods (English 431 for English majors)
Ed. 440: Student Teaching.
The student teaching is done in a nearby secondary school throughout the entire semester. Each student teacher is under the direct supemision of a selected experienced teacher and the guidance of faculty responsible for teacher education.

Prerequisites for student teaching include:
a. A grade point average of at least 2.0 in the major field.
b. Completion of Education 110 .
c. Completion of methods in the major field.
d. Approval of the major advisor and the director of secondary student teaching.

A student may also return to the college following graduation to complete an approved program of teacher certification.

## Courses in Education

110. Foundations of Education. A study is made of the social. historical and philosophical foundations of American education correlated with a survey of the principles and theories of noted educational leaders who have influenced educational practices today. 3 credits.
111. Educational Measurements. A study of the principles of validity and reliability appraisal and construction of test items and consideration of the uses of test results. Recommended elective in elementary and secondary fields. Prerequisite: Psychology 110. 3 credits.
112. Reading and Study Skills in the Content Areas. Designed to provide teachers of the content area in middle school. junior high and senior high with strategies, materials and techniques to improve their pupils' abilities to read, organize and study textual materials, to master concepts and technical vocabulary and to put to use information gained through the reading course texts and related materials. Emphasis is placed on reading skills only as they are necessary for effective learning of the content areas. 3 credits.
113. Educational Technology and Instructional Media. A laboratory course in which students produce and use media and the equipment of instructional technology: Bases for technological teaching devices and media are examined. types of media equipment evaluated. and applications explored. 3 credits.
114. An Introduction to Guidance. The history, philosophy: and development of public school guidance, and the procedures and instruments used by the teacher. Prerequisite: Education 110.3 credits.
115. The Education of the Exceptional Child. A general view of the practices and programs for the education of exceptional children and youth beginning with early childhood. The study includes children with physical, mental and emotional handicaps, and gifted children. Field work
in special classes provides first-hand experience. Prerequisites: Education 110. Psychology 110. 3 credits.

## Courses in Secondary Education

420. Human Growth and Development. This course deals with the practical application of principles of psychology and human learning to secondary school teaching. Required of all seniors in secondany education. Prerequisite: Education 110. 3 credits.
421. Practicum and Methods. This course is designed to acquaint the students with some basic behaviors and methods in the classroom that will help the prospective teacher in any subject area. Students work independently on the problems related to their major areas and teaching reading in their particular fields. This course is required of all seniors in secondan' education, except English majors who will take English 431. Prerequisite: Education 110. 3 credits.
422. Social Studies in Secondary Education. Students will explore patterns of curriculum and develop curriculum for their major area and for other areas within the Social Studies which they may be expected to teach. They will prepare instructional objectives, select and organize subject matter, investigate a variety of learning activities and strategies for developing inquiry skills, decision-making ability and values. $1-2$ credits.
423. Student Teaching. Each student spends one semester in a classroom at an area school under the supervision of a carefully selected cooperating teacher. Open to seniors only. Requirements are: (1) a cumulative gradepoint average of 2.0 during the first six semesters in college, (2) the written recommendation of the major adviser. (3) the approval of the director of secondary student teaching, and (4) the approval of the dean of the facult: Prerequisites: Education 110, 420: Education 430 or English 431. 9 credits.

## Engineering (Cooperative)

In the cooperative 3-2 Engineering Program a student may earn a B.S. degree from Lebanon Valley College and a B.S. degree in one of the fields of engineering from the University of Pennsyvania or other cooperating institution. Students who pursue this cooperative engineering program take three years of work at Lebanon Valley and then, if recommended by the college. they may attend the University of Pennsylvania for two additional years of work in engineering. After the satisfactory completion of the fourth year of the program. LVC grants the B.S. degree with a major in one of the areas of science or mathematics. At the completion of the fifth year. the University grants the appropriate engineering degree.
Requirements: Required courses at Lebanon Valley College in the 3-2 program include Mathematics 161. 162, 261. and 266; Physics 111. 112, and 211; Chemistry 111; Computer Science 241; and eleven selected courses in humanities and social sciences.
Additional courses in physics, mathematics, chemistry and biology appropriate for the particular area of engineering are chosen in planning the total program to meet the particular needs
of an individual student. For mechanical, civil, and electrical engineering. Physics 311, 312, 321 and 322 are among the needed courses.

At the University of Pennsylvania the student may select from among eight different engineering fields-bioengineering, chemical engineering, civil and urban engineering, computer science and engineering, electrical engineering and science, mechanical engineering and applied mechanics, metallurgy and materials science, and systems science and engineering. These and other engineering curricula are available at other engineering schools where the student may want to complete the final two years of the 3-2 program.

Some students decide to complete a four-year program at Lebanon Valley College, earning their baccalaureate degree with a major in physics, chemistry, or mathematics, and then move into a graduate program in the engineering school at a university which leads to a Master of Science degree in a field of engineering. This option is also attractive to students with a strong interest in the applied sciences.


The English major traditionally introduces students to the humanistic study of literature and thus to the noblest expressions of the human condition and the finest examples of esthetic

## English

Graduates of the Department of English can look forward to employment in a number of areas including teaching of all levels, graduate work, college administration, editing, public relations and the media, book publishing, business and government.

Graduate schools represented by Lebanon Valley College English Department graduates include the University of Pennsylvania, Penn State University, Michigan State, William \& Mary, Boston College, Northeastern and Cambridge University (England) to name a few.

Degree: B.A. degree with a major in English/Literature or English/Communications.
Major: Each student majoring in English must choose either a literature or a communications concentration. The student and adviser will develop a major program which will reflect the student's vocational interests and will meet the department's expectations for all English majors. All English majors must take four one-semester survey courses, History of the English Language, one semester of a major author, and Seminar in English.
(Literature Concentration) Students pursuing a literature concentration must take two additional one-semester survey courses and at least three additional one-semester courses in major authors and special topics. Students planning to teach in secondary schools must also take Oral Communications and Modern Grammars.
(Communications Concentration) Students pursuing a Communications Concentration must take four additional one-semester courses in communications or other related fields. The additional hours should reflect a specific emphasis in communications work such as journalism, electronic media, or technical and scientific writing. The student must also take at least one internshitp.

## Courses in English

111/112. English Composition I, II. Both semesters concentrate on developing basic skills of composition. 3 credits per semester.
211/212. Word Study I, II. This course has a twofold purpose: (1) to give the student some insight into linguistic processes, particularly as they pertain to the growth of the English vocabulary: and (2) to increase the range of the student's vocabulary. I credit per semester.
215. Writing Workshop. The subject of this course may include such topics as journalism, writing for the mass media, technical writing, management communications, writing for radio and television, and public relations. 3 credits.
218. Oral Communication. This course is designed to establish basic concepts. understandings, and attitudes concerning the nature and importance of oral communication and to provide experience in speaking and in competent criticism of these activities. 3 credits.
221/222. American Literature I, II. First semester: a survey of American literature from the beginnings to the Civil War. Second semester: a survey of American literature from the Civil War to the present day: 3 credits per semester.
223. Creative Writing. This course alternates between the writing of fiction and the writing of poetry: 3 credits.

225/226. Survey of English Literature I, II. A study of English literature from the beginnings to our own time. viewed in perspective against the background of English life and thought. 3 credits per semester.
$\mathbf{2 2 7 / 2 2 8}$. World Literature 1, II. While the organization of this course is basically chronological, the emphasis is thematic: major ideas of western thought are traced through important literary works from the ancient Greeks to the moderns. 3 credits per semester.
250-299. Studies in Literary Contexts. This sequence of courses, several of which are offered any one year, examines literary works within the larger contexts of social and intellectual concerns. 3 credits per semester.
321. Shakespeare. This course includes (a) a study of Shakespeare's history play's and their place in the Elizabethan world, and an analysis of early Shakespearean comedy: (b) a study of Shakespeare's major tragedies, the problem comedies, and the late romantic comedies. 3 credits.
331. History of the English Language. Historical study of English sounds, grammatical forms, and vocabulary; and brief survey of standards of correctness and current usage. 3 credits.
332. Chancer. Intended to give the student a reasonable familiarity with Chaucer and other medieval authors, and to develop skill in the reading of Middle English. 3 credits.
334. Modern Grammars. A review of traditional grammar and an introduction to recent concepts in grammar resulting from developments in structural linguistics. Prerequisite: English 331.3 credits.
337. The Novel. A study of the development of the novel in England from Richardson to Joyce. 3 credits.
338. Contemporary Drama. A survey-workshop of Continental. British, and American drama from Ibsen to the present. 3 credits.
339. History of the Theater. A selection of Western and some Oriental dramas from Aeschylus to Ibsen presented historically, with attention to theater modes and techniques. 3 credits.
344. Theater Workshop. The elements of theater art oriented toward stage presentation, with classroom practice in production of scenes and whole plays. 3 credits.
390. Internship. 1-9 credits.
431. The Teaching of English in Secondary Schools. Concerned primarily with the role of the English teacher in the secondary schools. Attention may be given to the teaching of composition, mechanics, speech, and literary forms. Sessions on recent research in the field of English, resource materials, mass media, and teaching techniques will be included. 3 credits.
440. Special Problems. Offered according to interests of students and staff. This course will rotate among faculty members, the content of the course to be determined by

the instructor with the advice of the department and consent of the chairman and the dean of the faculty. Prerequisite: consent of the instructor. 3 credits.
444. Seminar in English. This capstone course for English majors varies in content depending on the interests of the instructor. 3 credits.
500. Independent Study. For the student who desires to engage in a project of independent work whether enrolled in the departmental honors program or not. Prerequisite: consent of the instructor. 1-3 credits per semester. (21aximum of 9).

The study of a modern foreign language has a three-fold aim. The first is to develop fluency in the basic communication skills-speaking, listening comprehension, reading and writing. The second is to provide a direct understanding and appreciation of the literature, civilization and cultural heritage of the people whose language is studied. The third aim is to develop an understanding of language as the fundamental medium in which mankind thinks, perceives and interacts.

The department prepares the language major for a career in a variety of challenging fields: teaching, diplomatic and government service, foreign trade, business and industry, and social service. Since knowledge of a foreign language alone is often insufficient for many of these careers, the language major should, as appropriate, combine study of foreign languages with work in other disciplines.

Lebanon Valley College encourages language majors to spend some time studying in the country of their language. To facilitate study abroad, Lebanon Valley College has become a cooperating member of the International Studies Program of Central College, Pella, Iowa. This program provides for 6 to 12 months of study in France, Germany and Austria, or Spain.
Degree: For the student who majors in foreign languages, French, German or Spanish, the B.A. degree is offered.

## Foreign Languages

Foreign Lang.

Major: A student may elect to major in one foreign language or in Foreign Languages. A major in one language requires Foreign Languages 252 and 24 hours above the intermediate level in the language studied. A major in Foreign Languages has the same requirements plus a minimum of 12 hours above the intermediate level in a second language. If a certificate to teach is desired, Foreign Languages 440 is also required. Beyond the intermediate level, French, German and Spanish courses are conducted in the language studied.

## Courses in Foreign Languages

225/226. Contemporary European Literature I, II. Reading, in translation, of works selected to represent important authors and trends in contemporary European literature. 3 credits per semester.
252. Introduction to Linguistics. An introductory study of language as a communication system, designed for the major and non-major alike and taught entirely in English. 3 credits.
440. Methods in Teaching Foreign Languages. $A$ comprehensive study of modern methods of foreign language teaching in secondary schools with emphasis on teaching basic skills. Prerequisite: French, German or Spanish 116 or equiralent. 2 credits.

## Courses in French

101, 102. Elementary French I, II. A beginning course in French. 3 credits per semester.
111, 112. Intermediate French I, II. A continuation of French 102 with further practice in conversation, comprehension, reading and writing. Prerequisite: French 102 or equiralent. 3 credits per semester.
115, 116. Introduction to French Literature I, II. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: French 112 or equiralent. 3 credits per semester.
215. French Culture. A study of modern France with special attention to those qualities. characteristics, and tra-
ditions which are uniquely French. Prerequisite: French 112 or equiralent. 3 credits.
216. Advanced Conversation and Composition. Intensive practice in spoken and written French on an advanced grammatical and stylistic level, with emphasis on the use of the language in practical situations. Prerequisite: French 112 or equivalent. 3 credits.
221. French Literature of the Middle Ages. A study of the masterpieces of medieval French literature in the context of the social and intellectual climate in which they were produced. Prerequisite: French 116 or equiralent. 3 credits.
222. French Literature of the Renaissance. A study of the major works of the French Renaissance with emphasis on Rabelais, Montaigne and the poets of the Pleiade. Prerequisite: French 116 or equiralent. 3 credits.
331. French Literature of the Age of Louis XIV. A study of the major authors of this apogee of French civilization, including Corneille. Racine, Molière, La Fontaine and Pascal. Prerequisite: French 116 or equiralent. 3 credits.
332. French Literature of the Enlightenment. A study of the main literary and philosophical currents of the eighteenth century. with emphasis on the works of Montesquieu, Diderot. Voltaire and Rousseau. Prerequisite: French 116 or equivalent. 3 credits.
441. The modern Novel in France. A study of the French novel of the nineteenth and twentieth centuries. Prerequisite: French 116 or equiralent. 3 credits.
442. Modern Theatre and Poetry of France. A study of French theatre and poetry of the nineteenth and twentieth centuries. Prerequisite: French 116 or equiralent. 3 credits.
445/446. Seminar I, II. Designed to supplement and integrate the student's knowledge and stimulate individual study and research. The content varies according to the needs and interests of the group. Prerequisite: French 116 or equiralent. $1-3$ credits per semester.
500. Independent Study. This course enables a student to engage in independent study whether enrolled in the departmental honors program or not. Prerequisite: French 116 or equivalent. 1-3 credits. (.Maximum of 9).

## Courses in German

101, 102. Elementary German 1, 11. A beginning course in German. 3 credits per semester.
111, 112. Intermediate German I, II. A continuation of German 102 with practice in conversation, comprehension, reading and writing. Prerequisite: German 102 or equivalent. 3 credits per semester.
113, 114. Scientific German I, II. Practice in reading scientific and technical German with emphasis on the wocabulary used in this type of writing. Prerequisite: German 112 or equiralent. 3 credits per semester.
115, 116 . Introduction to German Literature I, II. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: German 112 or equiualent. 3 credits per semester.
215. German Culture. A study of modern Germany with special attention to those qualities, characteristics and traditions which are uniquely German. Prerequisile: German 112 or equiralent. 3 credits.
216. Advanced Conversation and Composition. Intensive practice in spoken and written German on an advanced grammatical and stylistic level, with emphasis on the use of the language in practical situations. Prerequisite: German 112 or equivalent. 3 credits.

## 221. German Literature from the Beginnings to

 1750. A study of representative works from the early Middle Ages through the baroque with emphasis on the generation writing in the early thirteenth century. Prerequisite: German 116 or equivalent. 3 credits.331. German Literature from $\mathbf{1 7 5 0}$ to $\mathbf{1 8 4 8}$. The effects of the Enlightenment and the subsequent development of German romanticism with a close reading of major works and extensive background in the history and esthetics of the period. Prerequisite: German 116 or equiralent. 3 credits.
332. Goethe and Schiller. A detailed study of the lives, society and artistic achievements of these preeminent literary figures. Prerequisite: German 116 or equiralent. 3 credits.
333. Special Topics in German. Advanced study of an aspect of the German language. Topic varies, e.g.. advanced grammar, stylistics, history of the German language. Prerequisite: German 116, 216 or equiralent. 3 credits.
334. German Literature from 1848 to the Present. An examination of masterpeices of German fiction, drama and poetry with special attention to the changing role of the artist in society. Prerequisite: German 116 or equilolent. 3 credits.
335. Topics in Modern German Literature. Offers a detailed study of one aspect of modern German literature. e.g., the novel, contemporary authors, twentieth century drama, literary expressionism. Prerequisite: German 116 or equivalent. 3 credits.
336. Independent Study. For the student who wishes to study independently whether enrolled in the departmental
honors program or not. Prerequisite: German 116 or equil'alent. 1-3 credits per semester. (1)aximum of 9).

## Courses in Greek

101, 102. Elementary Greek I, II. An intensive course in the basics of ancient Greek. 3 credits per semester.
111, 112. Intermediate Greek I, II. First semester: readings from the New Testament Cospels. Second semester: readings from Xenophon's Anabasis. A review of grammar throughout the year. Prerequisite: Greek 102.3 credits per semester.
321. Readings from the Book of Acts. Prerequisite: Greek 112.3 credits.
322. Readings in Hellenistic Greek. Prerequisite: Greek 112.3 credits.
431. Readings from the Epistles of Paul. Prerequisite: Greek 112.3 credits.
432. Readings from the Greek Philosophers. Prerequisite: Greek 112.3 credits.

## Courses in Latin

101. Elementary Latin I. Basic grammar and syntax. with some reading of ancient writers. 3 credits.
102. Elementary Latin II. A review of grammar, translation of English into Latin and reading Latin prose selections, including Cicero. Prerequisite: Latin 101 or equir'alent. 3 credits.
103. Intermediate Latin 1. A review of grammar and readings from prose works such as Cicero's Essays. Prerequisite: Latin 102 or equivalent. 3 credits.
104. Intermediate Latin II. A reading of passages selected from the writings of Virgil and Ovid. Prerequisite: Latin 111 or equiralent. 3 credits.

## Courses in Spanish

101, 102. Elementary Spanish I, II. A beginning course in Spanish. 3 credits per semester.
111, 112. Intermediate Spanish I, II. A continuation of Spanish 102 with further practice in conversation, listening comprehension, reading and writing. Prerequisite: Spanish 102 or equiualent. 3 credits per semester.
115, 116. Introduction to Spanish Literature I, II. Practice in the careful reading of literary texts and in the four basic language skills. Prerequisite: Spanish 112 or equivalent. 3 credits per semester.
215. Hispanic Culture. A study of Hispanic culture as found in modern Spain and its reflection in American countries and in the Spanish language. Prerequisite: Spanish 112 or equivalent. 3 credits.
216. Advanced Composition and Conversation. Intensive practice in spoken and written Spanish on an advanced grammatical and stylistic level, with emphasis on the use of the language in practical situations. Prerequisite: Spanish 112 or equiualent. 3 credits.

## 221. Spanish Literature of the Middle Ages and

 Early Renaissance. A study of the outstanding works of the period with emphasis on the beginnings of the Renaissance in Spain. Prerequisite: Spanish 116 or equivalent. 3 credits.222. Spanish Literature of the Golden Age. A study of the major works of the period. Prerequisite: Spanish 116 or equiralent. 3 credits.
223. Spanish Literature of the 18th and 19th Centuries. Readings from the Enlightenment in Spain and a study of the major works of romanticism and realism. Prerequisite: Spanish 116 or equivalent. 3 credits.
224. Spanish Literature of the 20th Century. Starting with the Generation '98 and Modernism, a representative study of the literary movements of this century. Prerequisite: Spanish 116 or equiralent. 3 credits.
225. Spanish-American Literature to the 20th

Century. Readings of the representative authors from the colonial and independence periods of Spanish-American literature. Prerequisite: Spanish 116 or equiralent. 3 credits.
442. Spanish-American Literature of the 20 th Century. A study of important writers of the early part of the century, with emphasis on recent developments in the literature of Spanish-America. Prerequisite: Spanish 116 or equiralent. 3 credits.
445/446. Seminar 1, 11. Designed to supplement and integrate the student's knowledge and stimulate individual study and research. The content varies according to the needs and interests of the group. Prerequisite: Spanish 116 or equivalent. $1-3$ credits per semester.
500. Independent Study. For the student who wishes to study independently whether enrolled in the department honors program or not. Prerequisite: Spanish 116 or equil'alent. 1-3 credits per semester. (1/aximum of 9).

Forestry and Environmental Studies (Cooperative)

Students completing a three year program at Lebanon Valley College studying the liberal arts and the sciences basic to forestry and environmental sciences may apply for admission to the cooperative forestry program with Duke University. Upon completion of the first year of the two year (plus one summer) program at Duke University, the student will receive the Bachelor of Science degree from Lebanon Valley College. After completion of the program at Duke the student will receive the professional degree of Master of Forestry (M.F.) or Master of Environmental Management (M.E.M.) from Duke University. Students may major in biology, economics, political science or mathematics at Lebanon Valley College.

Requirements: Required courses regardless of major include Biology 111/112, 302; Economics 110/120; Mathematics 161 or 111. and Mathematics 170 , plus those courses necessary to meet the general requirements of the college. Additional required coursework varies depending upon whether the student majors in economics, biology, mathematics or political science.

## French

(See Foreign Languages)

## Geography

Courses in geography are offered as an adjunct to the elementary and secondary education program, or for the student who wishes to take the courses out of personal interest.

## Courses in Geography

111. World Geography 1 (Physical Geography). The physical aspects of the earth, its place in the solar system, earth movements, earth's waters, landforms, climate, soil types, weather phenomena, and processes that form and change the earth's surface. 3 credits.
112. World Geography 11 (Regional Cultural Geography). This course is recommended for elementary education majors and is required for those wishing to be
certified in comprehensive social studies. The course examines various countries and regions of the world, relating the geographic features of each to the life and culture of the people. Natural resources and economy of each region are studied as well as such facts as states and capitals, population density, food supply, and ecological factors. 3 credits.


Lebanon Valley College offers pre-professional training in the medical (medicine, osteopathy, optometry, podiatry, pharmacy. chiropractic, and dentistry) and veterinary fields. Students interested in one of these careers usually follow a science curriculum with a major in biochemistry, biology or chemistry. At Lebanon Valley College we feel that a strong background in the basic natural sciences is requisite for careers in the health professions.

In addition to the basic natural sciences suited to advanced professional study, the student who is interested in veterinary medicine may participate in a cooperative program between the college and local veterinarians, specializing in both small and large animal medicine. Students not only receive credit for the work, but also gain valuable experience in the field.

A health professions committee coordinates the various plans of study at the college in addition to offering advice and assistance to those persons interested in health professions careers.

For those students interested in podiatry, Lebanon Valley College and the Pennsylvania College of Podiatric Medicine have established an accelerated podiatric medicine education curriculum consisting of a minimum of ninety undergraduate semester hours and four years of podiatric medical education. Following three years of study at Lebanon Valley College a student may be recommended for further study at the Pennsylvania College of Podiatric Medicine. Lebanon Valley College than awards the baccalaureate degree, with a major in biochemistry, biology or chemistry, to those students who complete successfully one year of basic science education at the Pennsylvania College of Podiatric Medicine.

Majors in biology and chemistry with an interest in health professions have been admitted to some of the nation's finest schools including Johns Hopkins University Medical School, The University of Pennsylvania. The University of Pittsburgh, Jefferson Medical School, The Milton S. Hershey Medical Center. Temple University, The University of Maryland. The Philadelphia College of Osteopathic Medicine. The Pennsylvania College of Podiatric Medicine and the Pennsylvania College of Optometry.

## Greek

## Health Professions

Health Prof.

History and Political Science

The Department of History and Political Science is a dual department, but each curriculum is distinct and taught separately. The study of history acquaints the student with human behavior in the dimension of past time. Political science deals with the many-sided aspects of government.

## INTERNSHIPS

The department offers supervised academic and field experience in two types of internship: in history, in historic preservation and other museum-related work; in political science, work in a governmental agency, with an elected public official, or in electoral activity. Departmental interns typically work 12 to 15 hours per week on assignment as interns in appropriate offices of the Pennsylvania Historical and Museum Commission in Harrisburg or on site, or as staff assistants to various committees in the Pennsylvania State Government, such as the House Committee on Health and Welfare or the Senate Committee on Education, or in the Harrisburg office of Congressman Allen Ertel of the 17th Congressional District.

## WASHINGTON SEMESTER PROGRAM

Juniors and seniors in any major field who have at least a 2.5 average, have had basic courses in American national government, and are recommended by the chairman of the Department of History and Political Science, are eligible to participate in the Washington Semester Program. which is offered in cooperation with The American University in Washington, D. C. Participants choose one of the following options: the study of the American governmental and political system as a whole (Semester in American National Government), the urban polity and intergovernmental decision-making in urban affairs (the Urban Semester), American foreign policy formulation and implementation (Foreign Policy Semester), the economic policy-making process (Economic Policy Semester), the operation of the criminal justice system (Justice Semester), the cultural institutions of Washington (Semester in American Studies), and journalism in Washington (Journalism Semester).

Degrees: B.A. degree with a major in history or political science.
Majors: (History) Four one semester courses in European history: History 125 and 235/ 236 or History 126 and 225/226 or History 225/226 and 235/236 in American history; one course from among History $343,344,345,346$; and History 213 and 412 for a minimum of 30 hours.
(Political Science) Political Science 111/112,211,212,217,311,312, 411, 412 and 413, plus History 125 and 235/236 or 126 and 225/226 for a minimum of 39 hours or History 225/226 and $235 / 236$ for a total of 42 hours.

## Courses in History

111/112. History of Western Civilization I, II. The first semester covers the development of Western European culture in all its aspects from its Near Eastern origins to about 1715 . The second semester covers its evolution during the eighteenth, nineteenth, and twentieth centuries. 3 credits per semester.
125/126. Survey of United States History I, II. The first semester covers the development of the United States to 1865 , the second semester from 1865 to the present.

Special emphasis throughout the course is placed upon historiographical philosophy and method. 3 credits per semester.
211. Greek and Roman History. An examination of the origins, structure, and values of Greek and Roman societies from about 1200 B . C. to about 500 A . D. The Mediterranean nature of these cultures and the historians' treatment of them are emphasized. 3 credits.
212. The Middle Ages. A study of the emergence of a European society from 500 to 1300 . Emphasis is on the social and intellectual aspects of medieval life, and the historiographical record is analyzed. 3 credits.
213. Introduction to Historiography. Theory and practice in the writing of history. The work of selected historians is studied and each student conducts and reports upon his own research. Training is given in research methods and in the preparation of research reports. 3 credits.
221. The Renaissance and Reformation: 1300 to 1600. A study of the beginnings of the modern era, paying particular attention to the inter-relationships between its political, social. economic, and intellectual aspects. 3 credits.
222. The Old Regime: 17 th and 18 th Centuries. An investigation of the impact of modern science and thought upon the development of Western European culture. Particular attention is paid to the nature of European society before the era of revolutions. 3 credits.
224. British History from the Tudors to the Present. A survey focused on the British Isles from Henry VII to Elizabeth II. The cultural evolution of the English people is studied with emphasis on the political-social-intellectual configuration. 3 credits.
225. American History to $\mathbf{1 8 0 0}$. An examination is made of all aspects of the development of the United States from its European origins to 1800 . Historiographical issues, methods, and problems are stressed. 3 credits.
226. American History from 1800 to 1865. The developments of nineteenth century American history to the end of the Civil War are studied, with special attention to historiographical concerns. 3 credits.
235. The United States: 1865 to 1920 . American history from the end of the Civil War through World War I is analyzed and interpreted, with emphasis upon historiography. 3 credits.
236. The United States: 1920 to the Present. The development of the United States since 1920 is studied in all its aspects. Historiographical interpretation is stressed. 3 credits.
331. The Era of Revolutions: $\mathbf{1 7 8 9}$ to $\mathbf{1 8 7 0}$. A study of the political and economic changes in Europe from 1789 to 1870 and the total cultural impact of these changes. 3 credits.
332. Modern Europe: 1870 to 1945. An analysis of the nineteenth century state system, its economic and social bases, its ideology, and its evolution through world wars and technological revolutions. 3 credits.
333. The Western Tradition Since 1945. Beginning with the reconstruction following World War II, the course focuses upon the intellectual, social, and broadly political significance of the period in the context of the continuing Western tradition. 3 credits.
334. European Intellectual History. The course examines main currents of European thought from the Re-

naissance to the present. Major themes to be studied will be war and peace, social and economic reform, and revolution. Primary materials will be emphasized. 3 credits.
343. History of Russia. A sun'ey of Russian history from ancient times to the present, with special attention to developments since the seventeenth century. 3 credits.
344. History of the Far East. A survey of the political, economic, and cultural institutions of China and Japan. with special emphasis given to the Western impact on these institutions after 1500.3 credits.
345. History of Latin America. A survey of the Latin American republics from their colonial beginnings to the present time. 3 credits.
346. Introduction to the History of African Culture. A survey of African culture from the tenth-century Sudanic origins to the present day. Emphasis is on the nineteenth and twentieth centuries. 3 credits.
349. Select Problems in History. A course to provide the student with an opportunity to explore in depth a topic of special interest. Open to junior and senior history majors and to other students by permission of the instructor. 3 credits.
400. Internship. Supervised academic and field experience in historic preservation or other museum-related careers. Participants will be selected by members of the Department staff. 3-6 credits per semester. (1/aximum of 15 ).

Hist. \& Pol. Sci.
412. Senior Seminar in History. A review of the student's college program in history, with reading, discussion. and writing to serve the following purposes: (1) synthesis of previous course work in history; (2) relation of the academic discipline of history to other fields of knowledge: and (3) formulation and expression of a personal philosophy of history by each student. Open only to senior departmental majors. 3 credits.
500. Independent Study. A course designed for students who wish to undertake an independent study project in history. Open to all students, subject to the following qualifications: Those who do not desire departmental honors are admitted by permission of the instructor who agrees to accept supenision of the student's work. Students desiring departmental honors must meet the conditions set forth above under "Departmental Honors." 1-3 credits per semester. (.'Maximum of 9).

## Courses in Political Science

111/112. American National Government 1, 11. The first semester includes a consideration of the nature of democracy, constitutional foundations of American government, the federal system of government, civil rights and liberties, American political behavior, political parties, and campaigns and elections. The second semester includes the study of the structures and functions of American government (the Presidency, the Congress, the Courts, and the bureaucracy) and the foreign and domestic policy-making processes. 3 credits per semester.
211. Comparative Government. A comparative study of important political systems of the world. including an introduction to the basic methodologies. It is strongly recommended that Folitical Science 111112 be taken previously or concurrently. 3 credits.
212. American Foreign Policy. A sunvey of the external relations of American government, with emphasis on twentieth century developments. Subject areas include diplomacy. military affairs, geographic and regional problems, trade and aid, technology and underdevelopment, alliances. nuclear problems, and opposing ideologies. It is strongly recommended that Folitical Science 111112 be tahen previously or concurrently. 3 credits.
217. Research Methods in Political Science. A course in the conduct and interpretation of research in political science. Topics covered include: formulation of a research problem, research design, techniques of scaling and measurement. data collection and analysis, and writing the research report. Prerequisites: a major in political science and sophomore standing, or permission of the instructor. Mathematics 170. Elementary Statistics, is strongly recommended. 3 credits.
219. State and Local Government. This course deals with governmental institutions and political characteristics of state and local political systems. It also examines the major intergovernmental problems in state and local relationships with the national government. it is strongly rec-
ommended that Bolitical Science 111/112 be taken preliously or concurrently. 3 credits.
311. Political Parties in the United States. A study of the origins and history of American political parties. their development, organization, leaders, conventions, platforms, and campaigns. It is strongly recommended that Folitical Science 111/112 be taken previously or concurrently. 3 credits.
312. American Constitutional Law. A study of the growth and development of the Constitution through the medium of judicial construction. Recent decisions illustrating its application to new conditions of the present age, and proposals for court modification are given particular attention. It is strongly recommended that Pblitical Science 111/112 be taken preriously or concurrently. 3 credits.
313. Foundations of American Law. This course provides an historical survey of the Western legal tradition from classical times through eighteenth century conceptions of the English common law as an introduction to the study of the evolution of American law. It is strongly recommended for pre-low students. Prerequisite: permission of the instructor. 3 credits.
314. Public Opinion. An analysis of the nature and sources of contemporary public opinion, with special attention to methods of determining public opinion. 3 credits.
350. Select Problems in Political Science. A course to provide the student with an opportunity to explore in depth a topic of special interest. It is strongly recommended that Political Science 111/112 be taken previously or concurrently.
400. Internship. Supervised academic and field experience in a governmental agency. with an elected public official. or in electoral activity. Participants will be selected by members of the Department staff. Prerequisite: Political Science 111/112. 3-6 credits per semester. (Maximum of 15.
411. Political Theory. A sunvey of the different philosophies and theories of government, ancient and modern. with special reference to political philosophy since the sixteenth century: It is strongly recommended that folitical Science 111/112 be taken previously or concurrently. 3 credits.
412. Senior Seminar in Political Science. Reading. discussion, and written assignments to accomplish the following purposes: (1) relation of the discipline to other fields of knowledge and (2) development and expression of an individual political philosophy by the student. Prerequisites: a major in political science and senior standing: or permission of the instructor. 3 credits.
413. International Politics. A course in the origin, forms. dynamics, and prospects of the international political pattern, with emphasis on current developments and changing concepts in world politics. It is strongly recommended that Political Science 111/112 be taken previously or concurrently. 3 credits.
500. Independent Study. A course designed for students who wish to undertake an independent study project in political science. Open to all students, subject to the following qualifications: Those who do not desire departmental honors are admitted by permission of the instructor who
agrees to accept supervision of the student's work. Students desiring departmental honors must meet the conditions set forth above under "Departmental Honors." $1-3$ credits per semester. (Maximum of 9).


Occasionally a student finds that his career goals cannot be met by a traditional major at the college. For this student an individualized major may be a logical choice. Working with two advisors a student develops a plan of study including a rationale for the specific major, a schedule for taking existing college courses which relate to the individualized major, as well as describing those courses which the student needs to pursue on an independent study basis. The plan of study must also include those courses to fulfill the general requirements of the college. The curriculum is then submitted to the dean of the faculty for approval.

Degrees: B.A. or B.S. degree (depending upon concentration) with an individualized major.
Requirements: Those courses specified within the approved individualized major plus those courses to meet the general requirements of the college.

## International Business

The program in international business provides a unique opportunity to integrate the study of business with the knowledge of a foreign language and culture. It is designed to equip students with the background and skills necessary to work with foreign corporations within the United States and with American corporations abroad. While acquiring a strong liberal arts background, students who elect this major will receive training in accounting, business administrataion, economics and political science. They also will become familiar with a foreign culture and will acquire proficiency in French, German or Spanish. International business majors are encouraged to apply for internships in order to gain valuable field experience.

Degree: B.S. degree with a major in international business.
Major: Accounting 151, 152; Business Administration 180, 361, 376; Economics 110, 120, 332; Political Science 211, 413; French, German or Spanish 215, 216; and two other courses in the selected foreign language above the intermediate level (111, 112), for a total of 42 hours.

## Languages

(See Foreign Languages)

## Latin

(See Foreign Languages)

80 Individ. Major


The Department of Mathematical Sciences offers one of the most modern, versatile, and respected undergraduate programs in the country. Since 1974, 95 percent of the graduates from the department have found attractive mathematical employment, or continued in graduate school. Since 1970, the number of majors in the department has more than doubled, while nationwide the comparable number is less than one-third of what it was in 1970.

The department offers a wide range of courses which support major programs in Actuarial Science, Computer Science, Mathematics, and Operations Research. The major in Mathematics can be tailored to prepare for Graduate School, Secondary School Teaching, Industrial Mathematics, or to dove-tail with a second major in another department. A Special Topics course allows coverage of material specifically requested by interested students. In Independent Study, outstanding students conduct further study and research in areas for which they show particular talent and interest. An Internship Program provides a further broadening of the students' experience.

In the last five years, we have placed systems analysts with PP\&L, AT\&T Long Lines, Air Products. Western Electric, Hershey Foods, EDS, the State of Delaware; applied mathematicians with the US Treasury Department, American Bank and Trust Co., Smidth Industries; teachers in Pennsylvania, New Jersey, and Maryland; computer scientists with G.E., Westinghouse, Blue Shield, and a school district. Two of our graduates have started their own computer software consulting firm. Finally, our graduates received graduate assistantships in Mathematics, Computer Science, or Operations Research from Hawaii, SUNY, North Carolina State, Wisconsin, Cornell, Carnegie-Mellon, Lehigh, Washington State, and Delaware Universities. In 1977, 1978 and 1981 graduates held Fulbright Scholarships for study overseas.

The major in ACTUARIAL SCIENCE is rather unique. Lebanon Valley College is the only fouryear college east of the Mississippi which offers courses specifically designed to prepare for the first five examinations of the Society of Actuaries and the Casualty Actuarial Society.

In Actuarial Science the demand for our graduates is, and will continue to be, much larger than the supply. During the last five years, we have placed graduates with Provident Mutual, Prudential, Reliance, State Mutual, Liberty Mutual, GEICO, Allstate, Crum \& Forster, Prupac and other insurance companies, and with the consulting firms of Conrad M. Siegel, and Alexander \& Alexander. A special option recognizes the need for mathematically trained persons in forest management: after three years at Lebanon Valley College and two years at Duke University, a student can receive the B.S. in Actuarial Science from LVC, and the M.S. in Forestry from Duke University.

The major in COMPUTER SCIENCE has a strong scientific orientation, conforming with the recommendations of the Association for Computing Machinery. Required courses in Physics will acquaint the student with the hardware aspects of computers, and an internship in a business computer operation will expose him to the "real world" of computer applications. The curriculum includes courses in English, Psychology, and Philosophy in order to expand the student's view of the societal and ethical implications of computer technology.

Lebanon Valley College is the only four-year college in the East to offer a major in OPERATIONS RESEARCH with a strong foundation in Mathematics. In scope and importance to society this field may be the fastest growing of the applied mathematical sciences.

A rigorous study of MATHEMATICS is the common foundation of all four major programs in

## Mathematical Sciences

the department. The core courses required of all students in the department provide the first phase of this effort. This core structure allows each student complete flexibility in the choice of one of the four majors, usually by the end of the second year of study. A strong effort is made not to differentiate between the students in the department by majors. Thus, talented students of any major are encouraged to be a member of the departmental Putnam Examination team which participates annually in this national mathematics competition. Similarly, the Mathematics Club is open to any interested student. This club sponsors a variety of activities including an annual mathematics competition for area high school students.

Degrees: B.S. with a major in mathematics. B.S. with a major in actuarial science. B.S. with a major in computer science. B.S. with a major in operations research.

Majors: (Core) MA 111, 112, 211, 222, 266, CS 241.
(Mathematics) Core plus 15 hours in courses numbered above 300.
(Actuarial Science) Core plus Mathematics 371, 372; Actuarial Science 385, 386, 481, 482; Operations Research 335; Accounting 151, 152; Economics 110, 120; also, Exam 1 of the Society of Actuaries must be passed by the fall of the senior year.
(Computer Science) Core plus Mathematics 322, 463, 464; Computer Science 341, 342 , 400, 441; English 215; Philosophy 228; Physics 103, 104, 212; Psychology 100, 337.
(Operations Research) Core plus Mathematics 371, 372; Operations Research 335, 336. 431, 500; Business Administration 180; Economics 201: English 215; Philosophy 228; Psychology $100,337$.

## Courses In Mathematics

100. Basic Concepts of Mathematics. An outline of some basic mathematical ideas and techniques. 3 credits.
101. Algebra and Trigonometry. An introduction to college algebra and trigonometry. 3 credits.
III, I12. Analysis I, II. A rigorous calculus sequence for majors of the department. 5 credits per semester.
I60. Finite Mathematics and Calculus for Business. Introduction to finite mathematics and calculus for students in business. 3 credits.
16I, 162. Calculus I, II. A calculus sequence with emphasis on applications. 3 credits per semester.
102. Calculus II and Differential Equations. A continuation of MA 161 with applications in biology and medicine. Prerequisite: Mathematics 161.3 credits.
103. Elementary Statistics. Elementary descriptive and inferential statistics. 3 credits.
2I1. Analysis III. Continuation of Analysis I. II. Prerequisite: Mathematics 112.3 credits.
104. Linear Algebra. Vectors, matrices, systems of equations. Prerequisite: Mathematics 112.3 credits.
26I. Calculus III. Continuation of Calculus I. II. Prerequisite: Mathematics 162. 3 credits.
105. Differential Equations. First and second order differential equations, partial differential equations. Prerequisite: ,Yathematics 211 or 261.3 credits.
106. Intermediate Statistics. An advanced version of Mathematics 170.3 credits.
107. Seminar. A seminar devoted to problem solving techniques. Prerequisite: Mathematics 211.1 credit.
108. Abstract Algebra. Fundamentals of groups, rings. fields. Prerequisite: Mathematics 222.3 credits.
109. Geometry. Axiomatic geometry, Euclidean and nonEuclidean geometries. Prerequisite: Mathematics 112. 3 credits.


361, 362. Methods of Applied Mathematics I, II. Integral equations, Fourier transforms, partial differential equations. Prerequisite: Mathematics 266.3 credits per semester.
371. Mathematical Probability. Random variables, probability law and distributions. Prerequisite: Mathematics 211. 3 credits.
372. Mathematical Statistics. Generating functions, decision theory, tests of hypotheses. Prerequisite: Mathematics 371.3 credits.
411. Foundations of Mathematics. The topology of real and complex number spaces. Prerequisite: Mathematics 211.3 credits.
412. Functions of a Complex Variable. Analytic functions, Cauchy theorem, conformal mapping. Prerequisite: Mathematics 211.3 credits.
450. Special Topics. Subjects chosen by student interest. 3 credits.
452. Seminar for Teachers. Issues of concern to the prospective secondary school teacher. 1 credit.
463, 464. Numerical Analysis 1, II. Numerical integration, interpolation, differential equations, matrix methods. Prerequisites: Mathematics 266. Computer Science 241. 3 credits per semester.
500. Independent Study. Independent study and research. lariable credit.

## Courses In Actuarial Science

385. Theory of Interest. Study of material for the part 4 Society of Actuaries, Casualty Actuarial Society, and Enrollment Actuaries examination. Prerequisite: Mathematics 211.3 credits.
386. Numerical Analysis for Actuaries. Study of material for the part 3 Sqciety of Actuaries and Casualty Actuarial Society examination. Prerequisite: Mathematics 211. 3 credits.
387. Life Contingencies I. Study of material for the part 4 Society of Actuaries, Casualty Actuarial Society: and

Enrollment Actuaries examination. Prerequisite: Mathematics 372.3 credits.
482. Life Contingencies II. Continuation of Actuarial Science 481 . Prerequisite: Mathematics 37.3 credits.
500. Independent Study. Study of material for further Society of Actuaries or Casualty Actuarial Society examinations. Variable credit.

## Courses In Computer Science

241. Introduction to Computer Science. Languages, algorithms. BASIC-PLLS programming. Prerequisite: Vathematics 112. 3 credits.
242. Computer Organization and Assembler. Computer architecture, assembly language, applications. Prerequisite: Computer Science 241.3 credits.
243. Data Structures. Graphs, trees, lists, files, applications. Prerequisite: Computer Science 241. 3 credits.
244. Internship. A summer internship with business or industry. 3 credits.
245. Programming Languages and Compilers. Grammars, recognizers, symbol tables, storage allocation. Prerequisite: Computer Science 241.3 credits.
246. Independent Study. Computer hardware, input output devices. Variable credit.

## Courses in Operations Research

335. Operations Research I. Linear Programming, queuing theory, decision theory. Includes material for the part 3 Society of Actuaries and Casualty Actuarial Society examination. Prerequisites: Vathematics 211, 222. 3 credits.
336. Operation Research 11. Further topics in Operations Research. Prerequisite: Operations Research 335. 3 credits.
337. Systems and Simulation. General systems theory, hierarchies, simulation methods. Prerequisite: Operations Research 335.3 credits.
338. Independent Study. Study of further topics in operations research. láriable credit.

In medical technology the student takes three years of courses at Lebanon Valley College in order to fulfill the requirements of the college and of the Board of Schools of the American Society of Clinical Pathologists. Preceding or during the third year of the program at LVC a student applies to a hospital with an American Medical Association approved school of medical technology, where he spends the fourth year of training. It is the student's responsibility to gain admission to such a program. Upon satisfactory completion of the one-year internship, the student is awarded the degree of Bachelor of Science in Medical Technology by Lebanon Valley College.

Lebanon Valley College is currently affiliated with the following hospitals: Abington Memorial Hospital, Sacred Heart Hospital (in Allentown), Harrisburg Hospital, Polyclinic Medical Center

## Medical Technology

of Harrisburg, Jersey Shore Medical Center-Fitkin Hospital, Lancaster General Hospital and Reading Hospital and Medical Center. However, the student is not limited to these affiliations and may seek acceptance at any approved hospital of his choice.

Requirements: Required courses for the medical technology curriculum include Biology 111/112, 202, 306 and eight hours which typically may include Biology 201 and/or 305, 291 (Special Topics in Immunology, Special Topics in Parasitology) 292 (Special Topics in Instrumentation: Chemistry 111, 112, 113, 114, 213, 214, 215, 216; Physics 103, 104; Mathematics 170; courses to meet the general requirements and an overall minimum of 92 semester hours which include two hours of physical education.

## Metropolitan Semester

Lebanon Valley College sponsors an urban semester program through the Metropolitan Collegiate Center of Germantown. Philadelphia, Pennsylvania. This is a one-semester program of a pre-professional internship and academic seminars relating to the city. The program is designed especially for students who are interested in cities and the opportunity of living and working in a pluralistic urban world; or who want the practical and personal advantages of a concrete work experience especially for purposes of vocational and educational decisions.

Internship placements are available in a diverse range of social service, mental health, law enforcement, medical research. and health-care-delivery agencies. 15 academic credits are offered in the program.

## Courses in the Metropolitan Semester

240. Theology in the City. An intensive study of the process of theological thinking, using the sludent's experiences in the city as primary data; sludy of the life of the church and its engagement in society; study of the poor and oppressed and the relationship of the church to such people. The course will be taught largely by the inductive method, relying to a great extent on the student's initiative in being involved in urban life. Prerequisite: Consent of the instructor. 3 credits.
241. Work Internship. Internships in service, technical and business agencies and inslitutions of choice of students are supervised by staff members of the Metropolitan Semesler. Three-and-one-half or four days per week. 6 credits.
242. Metropolitan Seminar. The seminar surveys the major issues in urban America, using Philadelphia as the point of reference. 3 credits.
243. The City and Fine Arts. An introductory survey of fine arts related to urban life as exemplified in Philadelphia. Regular seminar work is supplemenled by field studies in institulions such as the Art Museum, Philadelphia Orchestra, Theatre, and the like. 3 credits.
244. Social Sciences Research Seminar. The seminar surveys the nature of social research with special emphasis on methods of collecting valid data. Sludents design and complete a small research sludy on a relevant urban problem. 3 credits.

245. Values Seminar. Sludents examine ethical issues and moral dilemmas which arise from personal life, work in large organizations, and the conduct of public policy. 3 credits.

Students who major in any of the three areas in the Music Department (music performance, sacred music, music education) quickly realize the aims of the program to be the preparation of performers, church musicians and teachers: the teaching of music historically and aesthetically as an element of liberal culture; the offering of courses that give a thorough and practical understanding of theoretical subjects.

Each music student regardless of his major takes a required core of both theory and history courses. Each individual major, then, augments the basic core requirements to meet the needs of performers, teachers, and church musicians.

Attendance at a portion of faculty and student recitals is compulsory. All majors in the department are required to take private instruction on campus in their principal performance medium. Students whose major applied instrument is organ are required to study piano, continuing until they have attained a level of proficiency as determined by the organ staff. Participation in music organizations may be required of all majors. One-half hour of private instruction is included in the basic tuition.

The MUSIC PERFORMANCE major is designed for those students desiring a liberal arts context in their preparation for a career in applied music.

All majors are required to take an hour lesson per week in their principal performance medium and are expected to perform a half recital in the junior year, and a full recital in the senior year.

All majors outside of the keyboard area are required to study piano (private or class) until the minimum requirements have been met.

The SACRED MUSIC major prepares students for full-time work as directors of church music, as ministers of music, or as college teachers. The program is open to those individuals whose interest falls mainly within the areas of voice or organ.

All majors are required to acquire sufficient skill to assume responsibilities as a qualified parish church musician.

Majors whose principal performance medium is organ are required to study voice for at least two years, one of which may be class experience.

Majors whose principal performance medium is voice, upon admission to the program, are expected to show sufficient keyboard proficiency so that after two additional years of piano study (normally by the end of the sophomore year) they may benefit from a year of organ study.

The MUSIC EDUCATION major, approved by the Pennsylvania Department of Education and the National Association of Schools of Music, is designed for the preparation of teachers of public school music. Additional courses are determined by the student's selection of a track program. The track programs may be of a general nature or may be a concentration in either the instrumental or the keyboard/vocal fields. In all cases the student participates in student teaching in elementary and secondary schools and is responsible for transportation arrangements to and from the teaching location.

The music education curriculum requires voice instruction (class or private) for a minimum of one year and piano instruction (class or private) for a minimum of two years. A competency jury must be passed successfully in each area.

Graduates of the Music Department often attend graduate school, teach in elementary and secondary schools and colleges and universities, perform as recitalists and serve as full and part-
time church musicians. Graduate schools represented by LVC music alumni include Eastman School of Music, the University of Michigan, Iowa State, the University of Miami, Penn State University, Arizona State and The University of North Carolina to name a few. Other graduates of the college hold such varied positions as free-lance musician/composer and former assistant musical director of the ABC Dick Cavett Show Orchestra, professor of music at West Chester State College, first chair french horn for the Philadelphia Orchestra, and president of Music Educators National Conference (MENC).

Degrees: B.A. degree with a major in applied music. B.A. degree with a major in sacred music. B.S. degree with a major in music education.

Majors: (Core Courses) Music 115, 116, 117, 118, 215, 217, 226, 246, 316, 341/342, 530, 540.
(Applied Music) Core courses plus Music 132 (for voice majors) 224, 315, 329, 351-354 (for organ majors), and 462, for a minimum of 49 credits.
(Sacred Music) Core courses plus Music 132, 224, 315, 321, 322, 347, 351-354 (for organ majors) 421 , and 422 , for a minimum of 55 credits.
(Music Education) Core courses plus Music 227, 231, 232, 334, 335, 337, 441, 607 and the choice of one of the following track systems:

General: Music 123, 124, 328, 333, 336, 338, 345 or $347,416,402$ or 404 , for a minimum of 72 credits.
Instrumental: Music $123,124,328,336,338,345,402$, and 416 , for a minimum of 69 eyboard-Vocal: Music 123, 132, 333, 347, and 404, for a minimum of $66 \propto$ credits.


## Courses In Music

## Theory of Music

115. Harmony I. A study of the rudiments of music including notation, scales, intervals, and triads: the connection of triads by harmonizing melodies and basses with fundamental triads; playing of simple cadences at the piano: analysis of phrases and periods. 2 credits.
I 16. Harmony II. A study of inversions of triads, seventh and ninth chords, harmonizations of melodies and figured basses; analysis and composition of the smaller forms: modulation. 2 credits.
116. Ear Training and Sight Singing I. A beginning course in the singing and aural recognition of intervals. scales, triads and simple harmonic progressions. 2 credits.
117. Ear Training and Sight Singing II. A continuation of the above with emphasis on more difficult tonal problems. Sight singing exercises in four clefs employing modal melodies, remote modulation, super-imposed background and meter are studied. Corrective dictation and aural recognition of more difficult harmonic patterns are stressed. 2 credits.
118. Harmony III. The use of dominant and diminished sevenths as embellishments of and substitutes for diatonic harmony: harmonization of melodies and figured basses: analysis of two and three-part song forms: composition in two-part song form. Playing of more advanced cadences and modulations at the piano. 2 credits.
119. Basic Concepts of Structure and Style. A course designed to develop the student's knowledge of specific musical styles resulting from the synthesis of music's constituent and expressive elements. The study is approached through listening to. discussing, and analyzing compositions representing a variety of styles and media. Other course objectives include: acquaintance with literature, comprehensive apptication of the basics of music theory, and development of musicianship. 2 credits.
120. Counterpoint. Introductory work in strict counterpoint through three and four-part work in all the species. 2 credits.
121. Form and Analysis I. A study of simple and compound forms, variations, contrapuntal forms, rondo and sonata forms. Compositions in these forms are studied primarily for their structural content. Course includes extensive listening. 2 credits.
122. Elementary Composition. Melody analysis and writing: four-part choral writing; continuation of two and three-part song-form analysis and composition. Composition in theme and variations, fantasia, rondo, and dance forms. Study of contemporary harmonic ideas. Majors in music and sacred music. 2 credits.
123. Keyboard Harmony. Work at the piano includes reading from figured bass and score reading. Additional work includes transposition and improvisation. (Students are placed in elementary, intermediate or advanced sections on the basis of keyboard ability. The successful completion
of a piano jury is required for admission to the course. 2 credits.
124. Form and Analysis II. A study through analysis and listening of fugal forms, suite, overture, complete sonata forms (evolution of the symphony), string quartet, the tone poem. Analysis of classical and contemporary works in these forms. Majors in music. 2 credits.
125. Arranging and Scoring for the Stage Band. Study of modern harmony, modulation, style analysis, special instrumental effects as applied to modern arranging. Laboratory analysis and demonstration of sectional and ensemble voicings. 2 credits.
4I6. Orchestration. Study of instrumentation, devices, techniques. and mechanics of scoring transcriptions, arrangements and solos for orchestra and concert band; special work in scoring for mixed ensembles as they occur in public schools. Laboratory analysis and demonstration of various instrumental colors and combinations. Emphasis is placed on creative scoring. 2 credits.

## Methods and Materials

333. Methods and Materials, General Music: Elementary. A comprehensive study of general music teaching at the elementary level, including the rationale for building a music education curriculum. current emphases in music education, varied approaches for developing conceptual learning, movement, playing classroom instruments, introduction to Orff and Kodaly techniques, creative applications, guided listening, the child voice, materials. and interest centers for open classrooms. 3 credits.
334. Methods and Materials, General Music: Junior High School. Materials and approaches for junior high school general music, attention to the organization and presentation of a varied program, and recent trends in teaching. Adolescent voices, creative applications, improvisation, guided listening, interest centers, units of study, and characteristics of youth. 3 credits.
335. Methods and Materials, Instrumental: Fourth, Fifth and Sixth Grades. A study of methods and materials used in teaching band and orchestral instruments to children in these grades, with emphasis on a sound rhythmic approach. Both individual and class techniques are studied. Musical rudiments as applied to instrumental teaching are reviewed. 2 credits.
336. Methods and Materials, Instrumental: Junior and Senior High School. A study of intermediate and advanced instrumental teaching techniques; methods of organizing and directing school orchestras and bands; fundamentals of musicianship. 2 credits.
337. Seminar in Advanced Instrumental Problems. A study of the general and specific problems which confront the director of school orchestras, bands, and instrumental classes. Problems of general interest include: organization and management, stimulating and maintaining interest; selecting beginners; scheduling rehearsals and
class lessons: financing and purchasing instruments, uniforms, and other equipment; marching band formations and drills; evaluating music materials; organizing festivals. contests, and public performances. 2 credits.
338. Music Education Seminar: Secondary Level. A study of aspects of secondary school vocal music curriculum and related course offerings. Topics with which a high school choral teacher or director of music will need to be knowledgeable are investigated with particular attention given to those problems relating to the responsibilities of the vocal music teacher. Philosophy of music education. music theater, tests and measurements, elective courses, planning inservice events, and choral materials. 2 credits.
339. Methods in Piano Pedagogy. A study of methods of teaching piano to children and adults. The course includes the song approach method. presentation of the fundamental principles of rhythm, sight reading, tone quality, form, technique, pedaling, transposition, and the harmonization of simple melodies. Materials are examined and discussed. 2 credits.
340. Electronic Music. An introduction to the use and function of synthesizers and their application to the electronic music field, with special attention to the education area. live performance, and integration with studio equipment. I credit.

## 422. Church Music Methods and Administration. A

 course designed to acquaint the student with the organization, direction and management of the church music program. General and specific problems which confront the church musician are discussed. Topics of concern include the planning and development of a sound choir program with emphasis on solicitation of participants and the maintenance of interest; the methods and techniques of rehearsal; the preparation of budget and the management of funds; the incorporation of the church year in the selection of literature; committee and pastoral relationships. Sacred music majors. 2 credits.
## Student Teaching

441. Student Teaching. Each student spends a semester in the Music Department of an area public school under the supervision of cooperating teachers. Experiences are provided according to the individual student's selection of a track program, with emphasis on general. instrumental, or keyboard/vocal areas. Requirements are: (1) a cumulative grade-point average of 2.0 during the first six semesters in college. (2) ability to demonstrate proficiency in the competencies for music teachers as set forth by the Pennsylvania Department of Education, (3) successful completion of piano and voice juries; (4) approval by the music faculty.

## Instrumental Courses

Class Instruction in Band and Orchestral Instruments. Practical courses in which students. in addition to being taught the fundamental principles underlying the
play on instruments of each group, viz., string, woodwind, brass. and percussion. Problems of class procedure in public schools are discussed: transposition of all instruments is taught. Ensemble playing is an integral part of these courses.
Brass Instruments (Trumpet [Cornet]. Horn. Trombone. Baritone, Tuba)
123. Brass I. A study of two of the above instruments. 1 credit.
124. Brass II. A study of the remainder of the above instruments. I credit.
Percussion Instruments (Snare Drum, Timpani, Bass Drum, etc.)
227. Percussion I. A study of snare drum only. ©e credit.
328. Percussion II. A study of the remainder of the above instruments. oe credit.
Woodwind Instruments (Clarinet. Flute, Piccolo, Oboe. Saxophone, Bassoon)
231. Woodwind I. A study of the clarinet. I credit.
232. Woodwind II. A study of the remainder of the above instruments. I credit.
String Instruments (Violin, Viola, Cello, String Bass)
337. String I. A study of all of the above instruments. I credit.
338. String II. A continuation of the study of all of the above instruments. 1 credit.
420. Instrumental Seminar-Brass. Application of specific techniques to problems of class instruction. Prerequisite: Music $124.1 / 2$ or 1 credit.
430. Instrumental Seminar-Percussion. Application of specific techniques to problems of class instruction. Prerequisite: Music $328.1 / 2$ or 1 credit.
440. Instrumental Seminar-String. Application of specific techniques to problems of class instruction. Prerequisite: Music 338. $1 / 2$ or I credit.
450. Instrumental Seminar-Woodwind. Application of specific techniques to problems of class instruction. Prerequisite: Music 232. 1/2 or 1 credit.

## Music Organizations

Opportunities for individual performance in a group experience are provided by music organizations. Membership in the organizations is open on an audition basis to all students of the college.
601. Symphonic and Marching Band. The Blue and White Marching Band of L.V.C. is noted for its half-time performances during the football season. In the Symphonic Band the finest original music for band is performed, as well as arrangements of the standard repertoire. Membership in the band is dependent upon the ability of the applicant and the instrumentation of the band. Students from all departments of the college are invited to audition. No credit.
603. Symphony Orchestra. The Symphony Orchestra is an organization of symphonic proportions maintaining a high standard of performance. A professional interpretation of a wide range of standard orchestral literature is insisted upon. No credit.
604. Concert Choir. The Concert Choir is composed of approximately fifty voices, selected by audition. All phases of choral literature are studied intensively. In addition to on-campus programs and appearances on radio and television, the Concert Choir makes an annual tour. No credit.
605. College Chorus.* The College Chorus provides an opportunity to study and participate in the presentation of choral literature of major composers from all periods of music history. It is open to all students who are interested in this type of musical performance and who have had some experience in singing. Sacred music majors. No credit.
606. Chapel Choir. The Chapel Choir is composed of approximately forty voices. selected by audition. The main function of this choir is to provide musical leadership in the college's chapel services. In addition, seasonal services of choral music are prepared. No credit.
607. Beginning Ensemble. A training band and orchestra in which students play secondary instruments and become acquainted with elementary band and orchestral literature. Opportunity is given for advanced conducting students to gain experience in conducting. No credit.
608. Wind Ensemble. The Wind Ensemble provides an opportunity for advanced players of wind and percussion instruments to play the growing repertoire of music being written for this medium. In addition, standard classical works for wind and/or percussion instruments are played. The members of this organization are chosen by audition. No credit.
Instrumental Small Ensembles. Open to the advanced player on an audition basis.
611. String Trio. No credit.
612. String Quartet. No credit.
613. Clarinet Choir. No credit.
614. Woodwind Quintet. No credit.
615. Brass Ensemble. No credit.
616. Percussion Ensemble. No credit.
617. Saxophone Trio. No credit.
618. Saxophone Quartet. No credit.
619. Saxophone Quintet. No credit.
620. Saxophone Ensemble. No credit.
621. Flute Ensemble. No credit.
622. Horn Ensemble. No credit.

## The History and Appreciation of Music

100. History and Appreciation of Music. A course for the non-music major designed to increase the individual's musical perceptiveness. Through selective. intensive listening, the student develops concepts of musical materials and techniques. The vocabulary thus gained is utilized in a survey of Western music beginning with the 20th century and progressing backwards to the Middle Ages. This course
is designed primarily for the student with no previous musical background. May not be taken if student completed Music 341 and/or 342.3 credits.
101. Hymnology. A study of the historical development of hymns and hymn singing and an in-depth approach to the current hymnodical practices of the Christian churches. Sacred music majors. 2 credits.
102. Sacred Choral Literature Seminar. A study of sacred choral literature to extend the scope of the student's familiarity with major works and to promote further investigation. Emphasis is placed upon the development of sound aesthetic judgment in selecting literature for various liturgical settings. Examination is made of standard oratorios, requiems, cantatas and anthems; sources for materials are identified. Sacred music majors. 2 credits.
341/342. History and Literature of Music I, II. A survey course of the history of Western music. Emphasis is placed on the various stylistic developments which have occurred from one era to another, on the composers who have been responsible for these developments, and the music written during these various eras illustrating these stylistic trends. For this purpose, extensive use of recordings is made a part of the course. The first semester includes the development of music up to the Baroque era, the second semester from the Baroque to the present. May not be taken if student completed Music 100. 3 credits per semester.
351, 352, 353, 354. Organ Seminar I, II, III, IV. A four-semester sequence based upon the investigation and study of the following: 351-Organ Design and Registration; 352-Organ History and Literature. (Early times through the mid-Baroque with emphasis upon French and German music.); 353-Organ History and Literature. (An investigation of the organ literature of J. S. Bach and his contemporaries: organ literature of the nineteenth and twentieth centuries.); 354-Church Service Playing: Required for organ students majoring in music and sacred music; open to other students with the approval of the instructor. 2 credits per semester.
103. Piano Seminar. A survey of the history of the piano including a brief review of its predecessors; a study of the literature for the instrument, with special emphasis on that available to the average student: a study of the problems encountered in the preparation of piano material, its presentation in recital, and related pedagogical problems. Required for all piano students majoring in music; open to other students with the approval of the instructor. 2 credits.
104. Liturgy. A study of the music and its forms as related to the historical development of the current practice of the service of the Christian churches. Sacred music majors. 2 credits.
105. Music Literature Seminar. A study of music literature to extend the scope of students' familiarity with major instrumental works and to promote further investigation. Designed especially for the major in music with application of accumulated knowledge in theory, music his-

# Music Education 

(See 1/usic)

chestra and Band Instruments.) Piano study (private or class) is required for a minimum of two years. I credit.
tory, and musical form. The course includes examination of various theories of aesthetics as they apply to music, a sunvey of orchestral literature, study of twentieth-century compositions. and student pursuit of a project of each individual's own interest. Applied music majors. 3 credits.

## Conducting

246. Principles of Conducting. Principles of conducting and the technique of the baton are presented. Each student conducts vocal and instrumental ensembles made up of the class personnel. 2 credits.
247. Instrumental Conducting. Emphasis on practical work with instrumental groups. Rehearsal techniques are applied through individual experience. 2 credits.
248. Choral Conducting. Further refinement of the conductor's basic technique applied to the choral idiom. Laboratory situations will provide for training in areas of rehearsal procedures. materials, and special problems of choral conducting: diction, tonal development and style. 2 credits.

## Applied Music Instruction

132. Diction for Singers. An introduction to the pronunciation of singer's English, German, French, Italian. and Latin. utilizing the International Phonetic Alphabet. Required for all voice students majoring in music. all students majoring in sacred music, and all keyboard-tocal track students majoring in music education; open to other students with the approz of the instructor. 1 credit.
133. Class Piano Instruction. 1 credit.
134. Class Voice Instruction. 1 credit.
135. Individual Instruction. (Voice, Piano, Organ, Or-
136. Individual Instruction. (Voice, Piano, Organ, Orchestra and Band Instruments.) A charge is made for the second half-hour of instruction. 2 credits.

## Departmental Honors and Independent Study

500. Independent Study. A course designed for the student who desires to engage in independent study, either with or without departmental honors. 1-3 credits per semester. (Maximum of 9).

## The Student Recitals

The student recitals are of inestimable value to all students in acquainting them with a wide range of the best musical literature, in developing musical taste and discrimination, in affording experience in appearing before an audience, and in gaining self-reliance as well as nerve control and stage demeanor. Students at all levels of performance appear in these student recitals.


> Nuclear Medicine Technology (Cooperative)

Lebanon Valley College has developed a cooperative program in Nuclear Medicine Technology with the University of Virginia Medical Center. The student spends three years at Lebanon Valley College, taking a minimum of 92 semester hours. During the junior year, application is made to the University of Virginia Medical Center's School of Nuclear Medicine Technology, and if accepted into their program, the student spends the fourth year at that institution. After successfully completing this course of study the degree of Bachelor of Science, with a major in nuclear medicine technology, is awarded by Lebanon Valley College.

Requirements: Biology 111, 112. 201, 202, 291 (Special Topics in Human Anatomy); Chemistry 111, 112, 113, 114.213, 214, 215: Physics 103 and 104 or 111 and 112; Mathematics 102 and 161, or 161 and 166; Computer Programming 170; courses to meet the general requirements (to include one course in psychology and one course in sociology) and an overall minimum of 92 hours of work which includes two hours of physical education). The following courses are strongly recommended: Chemistry 216; Physics 211; Mathematics 170.

The study of philosophy at Lebanon Valley College directly involves the student in the process of sharpening critical and analytical abilities. This is accomplished by relatively small classes which are taught by a combination of the lecture and the discussion method. In advanced courses the discussion method is predominant. In all classes heavy emphasis is placed upon the writing of critical and analytic papers dealing with various aspects of philosophical thought as it pertains, for example, to the questions and issues of knowledge, human values and conduct, history, politics, religion, science, society, and the nature of human beings. Lebanon Valley College offers such study since it is a vitally important part of liberal learning.

Extensive studies in philosophy, whether done by means of a full major specialization, or through the taking of a number of courses, provides an excellent background and preparation for post-graduate activities such as law school and legal studies, business, theological and seminary training. Undergraduate study in philosophy is also an appropriate field of intellectual activity for the student who is not preparing for any specific vocation or profession and who desires a broad undergraduate exposure to humanistic learning.

Students, even those planning for specialized occupation following their graduation with a major in philosophy, are encouraged to pursue a double major with another discipline such as English literature, a foreign language, religion, history, or business. A double major is easily arranged and will aid in insuring a broader program of study in liberal learning.

Degree: B.A. degree with a major in philosophy.
Major: Philosophy 120 plus an additional 21 hours of philosphy courses for a total of 24 hours.


## Philosophy

## Courses in Philosophy

110. Problems of Philosophy. An introduction to some of the main problems of philosophy and to the ways in which leading philosophers have dealt with them. As part of this course, students learn the critical analysis of ideas. 3 credits.
111. Basic Logic. An introduction to the rules of clear and effective thinking. Attention is given to the logic of meaning, the logic of valid inference, and the logic of factual inquiry. Main emphasis is laid upon deductive logic, and students are introduced to the elements of symbolic logic as well as to traditional modes of analysis. 3 credits.
112. Ethics. An inquiry into the central problems of ethics, with an examination of the responses of major ethical theories to those problems. 3 credits.
113. Philosophy of Religion. A study of the issues raised for philosophy by contemporary religious and theological thought. A critical examination of such problems as faith and reason: the meaning of revelation, symbolism, and language; the arguments for the existence of God; faith and history; religion and culture.
114. Philosophy in the United States. A survey of philosophical thought in the United States from the colonial period to the present, with emphasis on the work of Peirce, James, and Dewey. 3 credits.
115. Greek Philosophy. A study of the evolution of philosophy from its origin in the speculations of the pre-Socra-
tic nature philosophers to the work of Hellenistic philosophers of the fourth century, with emphasis on the thought of Plato and Aristotle. Prerequisite: Philosophy 110 or consent of the instructor. 3 credits.
116. Medieval Philosophy. The history of philosophy is traced from the decline of the Hellenistic Age to the Renaissance, with emphasis on the development and subsequent criticism of the systematic elaborations of the schoolmen of the late Middle Ages. Prerequisite: Philosophy 110 or consent of the instructor. 3 credits.
117. Modern Philosophy. This course follows the development of philosophic thought in the writings of the principal thinkers from the Renaissance to the beginning of the nineteenth century, with emphasis on the work of Hume and Kant. Prerequisite: Philosophy 110 or consent of the instructor. 3 credits.
118. Twentieth Century Philosophy. An examination of the foremost American. British, and Continental philosophers from 1900 to the present. Prerequisite: Philosophy 110 or consent of the instructor. 3 credits.
350-359. Special Topics in Philosophy. 3 credits per semester.
119. Seminar. Discussion of selected problems of philosophy. Open to upperclassmen only, with consent of the instructor. 3 credits.
120. Independent Study. Prerequisite: consent of the instructor. 3 credits per semester. (Maximum of 9).

## Physical Education

Although the Department of Physical Education does not offer a major, the College requires graduates to have completed two courses in physical education.
The objectives of the program are to encourage attitudes and habits of good health and fitness, to develop physical capacities and skills, to promote sportsmanship, and to provide activities which will enrich leisure throughout life.

## Courses in Physical Education

101. Aerobics. Definition, types of programs, health and diet, physiological benefits, facilities and opportunities, life fitness. 1 credit.
102. Archery. Safety, rules, technique and form, scoring. 1 credit.
103. Badminton. Rules, court variances, techniques of serve and strokes, tournaments in singles and doubles. 1 credit.
104. Basketball. Rules, passing, shooting, dribbling, defensive and offensive strategies. I credit.
105. Bowling. History, rules, etiquette, terminology, scoring, equipment selection, technique. I credit.
106. Cycling. Safety; equipment selection, repair, and maintenance; techniques; benefits. 1 credit.
107. Dance. Basic and intermediate steps and turns; varieties, including disco, rock, waltz, cha-cha, etc. 1 credit
108. Fitness. Advantages, varieties of programs and activities, aerobics, weight control and diet, isometric and isotonic strength, weight-training and muscle tone, cardiovascular endurance. I credit.
109. Golf. Rules; etiquette; grip, stance, and swing for irons and woods; chipping and putting techniques; strategy. 1 credit.
110. Lifesaving. American Red Cross Lifesaving Course. Students must possess strong swimming skills, especially a strong scissors kick, to be admitted to the course. Evaluation based on class performances, quizzes, practical and written examinations. Red Cross certification for those who fulfill requirements.

111. Racquetball 1. Rules, court terminology, warm-up, shots, techniques, tactics for singles and doubles. 1 credit.
112. Racquetball II. Advanced skills and strategies. Ladder tournaments in singles and doubles. 1 credit.
113. Soccer. Tradition, rules, equipment, techniques, skills, tactics. team formations. 1 credit.
114. Softball. Tradition; positions; throwing. fielding, and batting skills; situations and tactics; competition. 1 credit.
115. Swimming. Water safety; survival floating; treading water: elementary forms of rescue: mechanics of crawl, backstroke, breaststroke, sidestroke, and front dive. 1 credit.
116. Tennis. Tradition, etiquette, court variances, basic
strokes, serve, net play, strategy, and scoring. 1 credit.
117. Touch Football. Origin and development, rules and scoring, techniques and skills, strategy, competition. I credit.
118. Volleyball. Rules, techniques of serves and shots. offensive and defensive tactics, competition. 1 credit.
119. Weight Training. Safety, preparation, muscle tone. stretching and flexibility, weight control, strength lifts (universal and free weights), competitive lifting. 1 credit.
120. Two Varsity Sports. Student engages in a Fall and Winter intercollegiate sport.
121. Two Varsity Sports. Student engages in a Winter and Spring intercollegiate sport.

The Department of Physics at Lebanon Valley College attempts to develop in the student an increased understanding of the basic laws of nature as they relate to our physical environment, and to indicate the possible extent, as well as the limitations, of our knowledge of the physical world.

In this age of science and technology when members of a free society must make decisions on such issues as the size of a national space program, the rate of development of nuclear energy, and the control of environmental pollution, physics has an important contribution to make toward the liberal education of people involved in the decision-making process.

The Department of Physics strives to be of service to as many students as possible in a variety of curriculum. For those who will not pursue a science major the department offers a course dealing with the impact of physics on society. For those with a strong interest in music the department offers a course in the physics of music.

Since physics, as the basic natural science dealing with forces, motion, energy, heat, sound, light, electromagnetism, electronics, atomic structure, and the structure and interactions of all matter, underlies work in all other natural sciences as well as the areas of applied science

## Physics

including engineering, the department offers comprehensive introductory courses for students majoring in any of the natural sciences.

For those students who plan careers in the field of physics, or in engineering, or in any area in which several natural sciences overlap (astrophysics, biophysics, geophysics, and computer science), the department offers a three or four year sequence of courses to prepare for future employment or for further study in a chosen field.

Laboratory work is an integral part of all physics courses, and is designed to acquaint the student with the experimental techniques and the measuring instruments appropriate to the various areas of investigation.

To the graduate with a degree in physics, positions are available in research and development in governmental laboratories, such as the National Bureau of Standards, Goddard Space Center, Naval Research Laboratory, and also in industrial laboratories. Those students who have had a semester of professional preparation in teaching will find jobs available in the teaching of physics and mathematics in secondary schools. A background in physics may also prepare a student for study at the graduate level not only in physics, but also in various fields of engineering, astronomy and astrophysics, geology and geophysics, meterology, biophysics, computer science and others.

Recent LVC graduates in physics hold such varied positions as technical research assistant at Hershey Medical Center, electrical engineer at the U.S. Naval Air Development Center, research physicist with Exxon Corporation, control systems engineer with Bechtel Power Corp., and nuclear power plant instrument engineer, Arizona Public Service. Graduate schools represented include the University of Pennsylvania, Indiana University of Pennsylvania and S.U.N.Y. at Binghamton, NY.

Degree: B.S. degree with a major in physics.
Major: Physics 111, 112,211,311,321, 322, plus six additional semester hours (at least two in experimental physics), for a total of 30 hours. Also required are Math 161, 162, 261, and 266 or Math 111, 112, 211 and 266.

## Courses in Physics

100. Physics and Its Impact. A course designed to acquaint the student, especially the non-science major, with some of the important concepts of physics, both classical and modern, and with the scientific method, its nature and its limitations. The role of physics in the history of thought and its relationships to other disciplines and to society and government are considered. The weekly twohour laboratory period provides experience in the acquisition, representation, and analysis of experimental data, and demonstration of the physical phenomena with which the course deals. 4 credits.
103, 104. General College Physics 1, II. An introduction to the fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound. electricity, magnetism, optics, and atomic and nuclear structure, with laboratory work in each area. 4 credits per semester.

101. The Physics of Music. This course, for students with an interest in music. comprises a study of wave motion, the analysis and synthesis of waves, resonance, physical characteristics of music sounds, musical instruments. the reproduction and amplification of sound, and the acoustical properties of rooms. A working knouledge of algebra and trigonometry is required. 3 credits.
111, 112. Principles of Physics I, II. An introductory course in classical physics, designed for students who desire a more rigorous mathematical approach to college physics than is given in Physics 103, 104. Calculus is used throughout. The first semester is devoted to mechanics and heat, and the second semester to electricity, magnetism, and optics, with laboratory work in each area. This course should be followed by Physics 211. Prerequisite or corequisite: Mathematics 111 or 161.4 credits per semester.
2II. Atomic and Nuclear Physics. An introduction to modern physics, including the foundation of atomic physics, the quantum theory of radiation, and atomic nucleus, radioactivity, and nuclear reactions, with laboratory work in each area. Prerequisite: Physics 104 or 112.4 credits.
102. Introduction to Electronics. The physics of electrons and electronic devices, including diodes. transistors. power supplies, amplifiers, oscillators, switching circuits. and integrated circuits, with laboratory work in each area. Prerequisite: Physics 104 or 112, or permission of the instructor. 4 credits.
311, 312. Analytical Mechanics I, II. A rigorous study of classical mechanics, including the motion of a single particle, the motion of a system of particles, and the motion of a rigid body. Damped and forced harmonic motion, the central force problem, the Euler description of rigid body motion, and the Lagrange generalization of Newtonian mechanics are among the topics treated. Prerequisites: Physics 111 and Mathematics 266.3 credits per semester.
32I, 322. Electricity and Magnetism I, II. Theory of the basic phenomena of electromagnetism, together with the application of fundamental principles to the solving of problems. The electric and magnetic properties of matter,
direct current circuits, alternating current circuits, the Maxwell field equations, and the propagation of electromagnetic waves are among the topics treated. Prerequisites: Physics 112 and Mathematics 266.3 credits per semester.
327/328. Experimental Physics I, II. Experimental work selected from the areas of mechanics, A.C. and D.C. electrical measurements, optics, atomic physics, or nuclear physics, with emphasis on experimental design, measuring techniques, and analysis of data. Prerequisite: Physics 211. 1 credit per semester.
42I, 422. Modern Physics I, II. A study of selected topics in modern physics, utilizing the methods of quantum mechanics. The Schrodinger equation is solved for such systems as potential barriers, potential wells, the linear oscillator, and the hydrogen atom. Perturbation techniques and the operator formalism of quantum mechanics are introduced where appropriate. Prerequisites: Physics 211 and Nathematics 266, or permission of the instructor. 3 credits per semester.
103. The Teaching of Physics in Secondary Schools. A course designed to acquaint the student with some of the special methods, programs, and problems in the teaching of physics in secondary schools. Required for secondary certification in physics. 1 credit.
104. Special Topics in Physics. A course in one or more of the following areas of physics is offered each semester, and is open, with the approval of the instructor. to juniors and seniors from any department.
(a) Thermodynamics 3 credits.
(b) Statistical Mechanics. 3 credits.
(c) Optics. 3 credits.
(d) Nuclear Physics. 3 credits.
(e) Solid State Physics. 3 credits.
(f) Mathematical Physics. 3 credits.
105. Independent Study. An experimental or theoretical investigation in a selected area of physics under the supervision of a physics staff member. Open to all physics majors with the permission of the departmental chairman. 1-3 credits per semester. (Maximum of 9).

Psychology has as its objectives the understanding of people and the fostering of their wellbeing. The study of psychology is therefore an important part of a liberal education as well as preparation for many careers. Upon graduation, some psychology majors pursue graduate study in clinical, counseling, experimental, or industrial psychology programs. Other graduates have obtained professional degrees in social work, medicine, business, education, and the ministry. Many of our majors, who have chosen not to go to graduate school, hold responsible positions that make use of their psychology training in industry, government, hospitals, and community agencies.

To assist students in selecting a program that fits their individual career goals, the department has identified seven tracks: clinical, counseling, or school psychology or psychobiology; human

(See History and Bolitical Science)

development; industrial/organizational psychology; social psychology; general psychology-often part of a double major with another academic field.

In addition to course work there is a program of directed studies, developed individually, to introduce the student to research, or to permit pursuing particular academic interests by reading, by projects in the laboratory, or by supervised work in a school or agency. There is also an internship program which may include off-campus, full-time work during the summer and part-time work during the academic year. There are semester programs in Philadelphia and abroad.

Degree: B.A. degree with a major in psychology.
Major: Psychology 100, 120, 216, 236, 343 and 443; one of the following: 235, 335, 444; and two of the following: $321,332,346$, and 431 -for a minimum of 27 hours. Students with particular career goals or special academic programs may receive departmental approval to adjust major requirements to individual needs.

## Courses in Psychology

100. Psychology: The Individual and Society. Psychological approaches to the study of the person as the individual develops and interacts with others. Representative fopics are: human development, learning, arousal, motivation, sex, aggression, the self, self-control and morality, abnormal behavior, interpersonal attraction, dependency and social attachment. 3 credits.
101. Psychology: By Experiment. An introduction to psychology as a laboratory science, emphasizing research with people, but including sludies of animal behavior. The relations of the perceived world to the physical environment, the uses of reward to modify behavior, ways in which meaning influences verbal learning, and the effects of new experiences upon memories are among the topics to be presented. The course is not a complete survey of psychology, but a study of selected sets of experiments to indicate significant principles and the methods used to verify them. 3 credits.

## 216. Experimental Methods in Behavioral Science.

The various methods which enable students to crifically evaluate behavioral research findings. Experimental and correlational procedures are applied to problems in behavioral research, biomedical research. and program evaluation in healih and human service agencies. Prerequisite: Psychology 100 or 120 taken previously or concurrently. 3 credits.
220. Educational Psychology. Review of the psychological literature concerning cognitive, behavioral, emolional and social effects of typical educational influences. Required for sfate certification in elementary and music education. Prerequisite: Psychology 100 or 120.3 credits.
235. Sensory and Perceptual Processes. Review of major areas of investigation of visual, auditory and other sensory systems. Psychophysical methods, and principles of sensory differentiation and field organization are included. Prerequisite: Psychology 120.3 credits.

236. Learning and Memory. Instrumental and classical conditioning techniques are compared and related to theories of human and animal learning and motivation. Basic methods in the investigation of verbal learning are introduced. Analyses of learning include cognitive processes. Prerequisite: Psychology 100 or 120.3 credits.
237. Laboratory Investigations I: Sensory and Perceptual Processes. Experiments with human subjects. coordinated with topics in Psychology 235. Students select sensory/perceptual problems for investigation, have a part in the design of experiments, conduct trials, do statistical computation, and interpret the results. Prerequisites: Psychology 120, 216. Corequisite: Psychology 235. 1 credit.
238. Laboratory Investigations II: Learning. Animal and human learning experiments coordinated with topics in Psychology 236. Simple learning situations are demonstrated. Students conduct investigations, analyze data. and write reports. Prerequisite: Psychology 100 or 120. Corequisite: Psychology 236. I credit.
300. Cinematic Conceptions of Man. Viewing films as literary works, an examination of the thematic, stylistic, and structural statements and assertions concerning man's actions and psychology that are made by auteurs, and involved in film genres and historical periods. Specific topics (e.g., Fellini, Antonioni, the Western, and Neo-Realism) to be selected each term, and discussions will be based upon films in a film series illustrating the topic, a series held in conjunction with the course. May be taken twice for credit. 3 credits.
321. Childhood and Development. The study of cognitive, social and emotional change over the life span, as well as the psychological effects of physical growth. Special attention is given to research studies, developmental mechanisms and theories of development. Students are encouraged to conduct research with children. Prerequisite: Psychology 100 or 120. 3 credits.
332. Psychological Testing and Assessment. An introduction to basic psychometric theory, and an overview of selected personality, ability and attitude measures. Prerequisites: Psychology 100 or 120; Psychology 216, Mathematics 170, or consent of instructor. 3 credits.
335. Research Design and Statistics. The student evaluates published studies and identifies problems in the design and execution of both laboratory and applied studies. Factorial designs, multivariate techniques, and non-parametric statistics are covered in clinical, organizational, educational and laboratory settings. Prerequisites: Psychology 100 or 120, 216, or permission of the instructor. 3 credits.
337. Organizational Psychology. The application of basic psychological principles and findings to problems of organizational behavior and psychology in industry. Topics to include ecological psychology-man environment relations, systems design and analysis, human factors engineering, and the evaluation of the impact of the organization on the individual. Prerequisite: Psychology 100 or 120. 3 credits.
343. Personality. Reasons for individuality and consistency in the lives of persons are studied. Attention is typically given to the role of aggression, altruism, anxiety, competence, dependency, and sexuality. Psychoanalysis, existential-phenomenology and social learning are among the major personality theories to be studied. Prerequisites:

Psychology 100 or 120; junior or senior standing, or permission of the instructor. 3 credits.
346. Social Psychology. The study of how groups or other individuals interpersonally and intrapersonally affect the individual. Emphasis is given to the review of research studies and theories. Topics include: attitude development and change, conformity, persuasion, person perception, attribution, attraction, norms, and small groups. Prerequisites: Psychology 100 or 120; junior or senior standing, or permission of the instructor. 3 credits.
431. Abnormal Behavior and Experience. The study of personal problems, including alcohol and drug dependence, brain disorders, criminal and psychopathic behavior. psychoneurosis, psychosomatic reactions, psychoses, sexual deviations, subnormal intelligence, suicide, and the disorders of childhood and adolescence. Prerequisites: Psychology 100 or 120; junior or senior standing, or permission of the instructor. 3 credits.
432. Introduction to Clinical Psychology. An introduction to the work of psychologists in understanding and assisting persons who have problems. Particular attention is given to clinical interviewing; projective techniques, testing and diagnosing; individual and group therapy; marriage and family counseling; and play therapy with children. Field work in a clinical setting. Prerequisites: Psychology 100 or 120: 431 or nursing training with psychiatric affiliation, or permission of the instructor. 3 credits.
443. History and Theory. Philosophical issues, areas and trends of investigation, and "schools of psychology" prior to 1940. Prerequisites: Psychology 100 or 120 and 236; junior or senior standing, or permission of the instructor. 3 credits.
444. Physiological Psychology. How biological processes interrelate with behavioral events in learning, thinking, feeling, perceiving, and striving, including neural and hormonal bases for learning, memory, and personality: Findings in biofeedback, sexuality, sleep, and behavior disorders are exainined. Prerequisite: Psychology 100 or 120. 3 credits.
400. Internship. An applied and academic program which combines work in community mental health and related agencies, hospitals and schools, with discussions, guided reading, and systematized observations. Prerequisites: Psychology 100 or 120; junior or senior standing; approval of instructor, based on relevant coursework in psychology and personal attributes; approval of community agency. 1-6 credits per semester. (Maximum of 9, or with departmental approval. 15).
500. Independent Study. Individual investigation of a selected topic in psychology, involving either an experiment, a project in the community, or a systematic program of reading, each under the supervision of a member of the department. This includes conferences with the instructor. Prerequisites: Psychology 100 or 120: one additional psychology course, and permission of the department. 1-3 credits.

## Reading and Study Skills

Occasionally, an incoming student may have problems with an inabiliy to comprehend college material or an inability to study properly. It is for this student that the reading and study skills course is intended.
110. Reading and Study Skills. A study of techniques intended to improve those skills important to reading and to study at the college level. Texts assigned for students' own classes are utilized. and additional resource
malerials are available in the Media Center. Students who have SAT terbal scores below' 450 are strongly advised to take the course. 1 credit.

## Religion

The program of the Department of Religion is designed to give students insight into the meaning of religion. Coursework in the department introduces the student to the various historical and contemporary expressions of the Judaeo-Christian heritage as well as of the diverse religious traditions of mankind. Such work helps the student not only to understand the Christian affiliation of the College but also to experience a crucial element in liberal education.

Students major in the Department of Religion for a variety of personal and vocational reasons. Some people major in religion just because they are interested in it and want to study it. Some major in religion to prepare themselves for the lay or ordained ministry.
Vocations to the Ordained Ministry. Traditionally, many of our majors have studied religion as a preparation for theological school and the ordained ministry. Both men and women have gone on from Lebanon Valley College for the theological studies at United Methodist seminaries such as Drew. Wesley, Boston, United Theological (Dayton), Duke. and others. In addition, men and women from a wide variety of denominational backgrounds have gone on to schools as diverse as Bethany Theological Seminary. Oxford University, the University of Chicago, Eastern Baptist Theological Seminary. Catholic University of America, and others. Students interested in such preparation generally would pursue the B.A. degree with a major in religion.
Vocations in Christian Education. For persons who want to pursue a lay ministry in Christian education, either as a full-time professional or as a volunteer, a program in Christian Education is available. The program is designed to provide the minimum required academic work for certification as an Associate in Christian Education in the United Methodist Church, as well as for various certification levels in other denominations. Students who desire advanced levels of certification are helped and encouraged to pursue appropriate graduate work. Persons who are already teaching in church schools. CCD programs. or parochial schools can find specific courses within the Christian Education program helpful for growth and enrichment. Elementary Education majors may concentrate in Christian Education, and Sacred Music majors may increase occupational flexibility through work in the program. Potential high school teachers may work within the program to acquire competence for teaching religion in public and parochial schools. Students interested in such preparation generally would pursue the BA. degree with a major in religion and a concentration in Christian Education.
Vocations to Other Forms of Lay Ministry: The Double Major. For persons who want to pursue other forms of lay ministry, the Department of Religion encourages a double major.
religion and social service (for work in Christian and governmental social agencies), and religion and nursing (for missionary work). Some students work toward the career of their choice, adding religion as a second major in order to understand more thoroughly the Christian tradition which motivates and guides them in their profession. Students interested in such preparation generally would pursue the B.A. degree with a major in religion.
Degrees: B.A. degree with a major in religion. B.A. degree with a major in religion. concentration in Christian Education.
Majors: (Religion) Religion 110, 111. 112. 222, 331.404, one course from among 202.211, 212 , and electives (including Greek 321, 431), for a total of 30 hours. The following courses are recommended for a major in religion: Biology 101: Greek 101/102, 111/112; History 111/112; Philosophy 110, 231; Psychology 100; Sociology 110, 231.
(Religion/Christian Education) Religion 110, 111, 112, 120, 211, 202 or 212, 222, 311. 312, 331, 400 (minimum of 3 hours), 402; Education 110, 270; English 218; Philosophy 110; Psychology 100, 220, 321; Sociology 110, 232, 242. Recommended courses: Art 110, Education 220, 260, 346, 423; English 227/228, 250-299, 344; Foreign Language course work leading to a Certificate of Language Proficiency; Music 100, 321, 421; Philosophy 231; Psychology 337, 343, 346; Religion 140; Sociology 211, 302, 322.

## Courses in Religion

110 Introduction to Religion. An exploration of the many dimensions of religion as a central human experience by examining such lopics as: varieties of religious experience and expression. religious knowledge, the self and meaning, religion in its sociocultural contexl, religion and the natural order, and the universal issues such as death. the End, evil, suffering, and the moral order. 3 credits.
111. Introduction to Biblical Thought. An examination of some of the basic themes of Biblical religion in relation to their historical context and their contemporary implications. 3 credits.
112. Introduction to the Christian Faith. A systematic inquiry into the areas of religious language, religious knowledge, and the doctrines of God, man. Christ, and the Church. 3 credits.

120. Religion in America. A study of contemporary Judaism, Roman Catholicism, and Proteslantism in the United Stales, including a brief historical background of each. Some attention is given to the various religious sects and cults. 3 credits.
130. American Folk Religion. A study the folk traditions of selected American denominations and sects, and of the theological implications of "secular" folklore. Emphasis will be placed on field-work as well as on analysis. Prerequisite: Religion 120 or permission of instructor. 3 credits.
140. World Religions. An examination of the rise and development of religion along with a study of the ideas, and cultic and ethical practices of the greal world faiths. Special attention given to Asian religions. 3 credits.
202. The Prophets. A study of the lives and writings of the Old Testament prophets, and an analysis of their contributions to Hebrew-Christian religious thought. 3 credits.
206. Near East Archaeology and the Bible. An examination of archaeology in biblical lands, its methods, objectives, and contributions to the areas of history, cullure, and religion. 3 credits.
211. Life and Teachings of Jesus. An intensive study of the life and message of Jesus as sel forth in the Gospels. 3 credits.
212. Life and Epistles of Paul. A study of the life, writings, and theological thought of Paul and their relationship to the practices. problems, and beliefs of the early church. 3 credits.
222. Christian Ethics. A systematic analysis of the implications of the Christian faith both for personal moral

## Sacred Music

(See ${ }^{\text {ITusic) }}$

decision, and for social policy in such areas as marriage and family. government and political life, work and the economic order. Prerequisite: Religion 111 or 112. 3 credits.
311. Principles of Christian Education. A study of the history and theology of Christian education, catachetical principles, growth in religious experience, issues in religious psychology, and the relationship of Christian education to higher education, the public school, and the home. 3 credits.
312. Methods of Christian Education. An examination of basic methodological competencies in Christian education, including curriculum development. church school organization, teacher training and development, administration and management, evaluation methods, worship in the church school, use of the Bible, and audio-visual resources. 3 credits.
331. Christian Tradition and Reform. A study of the major and continuing strains in the history of Christianity and the principal reform movements. Required of majors and strongly recommended for all pre-theological students. 3 credits.
332. Theological lssues in Contemporary Secular

Authors. Identification, analysis, and interpretation of issues of special theological import raised by thinkers representing "non-theological" disciplines. Prerequisite: Religion 112 or consent of instructor, 3 credits.
400. Field Work. An extension and application of knowledge through a supervised internship experience in an appropriate church school, agency, or organization. 1-6 credits.
402. Seminar: Selected Problems in Christain Education. A critical analysis of selected themes and issues in contemporary Christian education. 3 credits.

## 403. Seminar in Classical Christian Thinkers. An

 intensive study of the thought of such classical religious thinkers as Augustine, Aquinas. Luther. and others. 3 credits.404. Seminar in Selected Religious Problems. A study of selected problems arising from recent theological efforts. Research methodology is stressed. Required of majors and strongly recommended for all pre-theological students: others by permission of the chairman of the department. Prerequisite: Religion 111 and 112.3 credits.
405. Independent Study. Request guidelines from adviser. 1-3 credits per semester. (1)aximum of 9).


The social sciences examine the structure of society and the behavior of human beings in group relationships within that structure. This interdisciplinary program provides an opportunity for the student to explore the basic concepts of a broad spectrum of social science disci-plines-economics, history, political science, and sociology-and then to do more concentrated work in his choice of one of these subject areas.

The program also offers basic preparation for graduate, theological, and law schools, and for careers in business, government, social work, and teaching.

Degree: B.A. degree with a major in social science.
Major: Economics 110/120; Geography 112; History 125/126; Political Science 111/112; Psychology 100; Sociology 110, 251; and 12 hours in a single social science to be determined with the consent of the adviser in that discipline, for a minimum of 42 hours. Social Science majors are exempted from the 9 hours of General Requirements of Category 4, Individual and Group Behavior.

Students who major in sociology at Lebanon Valley College do so to benefit from a richer understanding of contemporary issues, and are encouraged to develop a strong sense of personal selfhood and identity. The primary motivation for majoring in social service is that ours is a service-oriented society, and such a major increases the job competitiveness for a student who is interested in social work, social welfare, or in a related field.

Students majoring in social service may elect to concentrate their studies in one of four areas: criminal justice-dealing with incarceration and its alternatives, family intervention-counselling with families as a unit, gerontology-working with the aging, and thanatology-focusing on care for the terminally ill.

In addition to providing the necessary coursework needed for majors in sociology and social service, the department has developed an extensive network of positions in community service agencies where students may participate in internships to gain valuable pre-professional training. Agencies represented in internship programs include: Lebanon County Workshop, RSVP, Child Welfare, area nursing homes, and state government agencies in Harrisburg.

Recent graduates in the department have attended graduate school at the University of California-Berkeley, Oklahoma, Rutgers, Stanford, Northwestern, Maryland, the College of William and Mary, and the University of York (United Kingdom). Graduates have assumed positions in the Lehigh Valley Head Start program, the Lancaster Community Action Program, Urbana College, Montours State Hospital, the Children's Care Center in Harrisburg, the Camden County (N.J.) Welfare Board, and the Penn State Extension Service.

Degrees: B.A. degree with a major in sociology. B.S. degree with a major in social service.
Majors: (Sociology) Sociology 110, 311, 421, and 432, plus 15 additional hours in Sociology. (Social Service) Sociology 110 and 311; Social Service 262, 331, 341 or 342, 422 and 9 semester hours of Social Service 400 plus one of the following options: General ProgramSociology 122, 282 and two courses selected from Sociology 232, 273 and Sociology 291 or 351 (38-39 hours); Criminal Justice Concentration-Sociology 273, 275, 278 and Sociology 211 or

## Social Science

## Sociology and Social Service

## Courses in Sociology

110. Introduction to Sociology. A systematic study of the major concepts, methods, and area of sociology focusing on the nature of society, the behavior of social groups, and the impact of society on individuals. 3 credits.
111. Social Problems. An in-depth investigation of selected problems of contemporary life as seen through different analytical perspectives. Prerequisite: Sociology 110. 3 credits.
112. Urbanology. An inquiry into the nature and degree of urbanization in the United States and the world. and of the impact of urban life on contemporany society. Prerequisite: Sociology 110. 3 credits.
113. Family Sociology. An intensive study of the family as a social institution varying from one social-historical context to another. Prerequisite: Sociology 110. 2 credits.
114. Marriage Making. A look at the marriage pattern, from initial dating to final dissolution. Prerequisite: Sociology 110.2 credits.
115. Introduction to Anthropology. A general survey of the uses and methods of anthropology focusing on the interaction of physical, economic, and cultural factors in the development of people and their behavior. 3 credits.
116. Criminology. An investigation of the social phenomenon of crime, including consideration of the nature, causes. and responses to behavior which is defined as criminal or deviant. Prerequisite: Sociology 110. 3 credits.
117. Criminal Justice. An in-depth examination of the strengths and weaknesses of our criminal justice system and of possible alternatives to it. Prerequisite: Sociology 110. 3 credits.
118. Juvenile Delinquency. A sociological examination of the factors associated with juvenile delinquency, the theories explaining juvenile delinquency and an exploration of the operation of the juvenile justice system and various treatment programs. Prerequisite: Sociology 110.3 credits.
119. Social Inequality. An analysis of relations within and between racial and other ethnic groups. Consideration is given to unique historical contexts, basic social processes. and emergent contemporary developments. Prerequisite: Sociology 110. 3 credits.
120. Gerontology. An investigation of the ways in which individuals, families, communities, and society' as a whole respond to the problems created by aging. Prerequisite: Sociology 110.3 credits.
121. Community Organization. A study of the structure, action, and change of communities as a whole and the organizations which comprise them. Prerequisite: Sociology 110. 3 credits.
122. Research Methods. Students learn to develop research design, to code data, to interpret and communicate findings, and to utilize and evaluate the research of others. Prerequisite: Sociology 110, Sociology major, junior or senior status, or permission of department chaiperson. 3 credits.
123. Sociology of Religion. An investigation of the structure and functions of religious organizations and phenomena, with particular emphasis on the varieties of religious expression in American society. Prerequisite: Sociology 110. 3 credits.
124. Thanatology. An exploration of some of the basic legal. medical. ethical, and social issues related to death and dying in contemporary society. Prerequisite: Sociology 110.3 credits.
125. Field Experience. An extension and application of knowledge through a supervised internship in an appropriate agency or organization. Prerequisites: Sociology 110, 18 hours in sociology and permission of instructor. 3-12 credits. (Maximum of 15).
126. Social Theory. An intensive exploration of the major sociological theorists and movements. Prerequisites: Sociology 110 and 12 hours in the department. 3 credits.
127. Seminar in Sociology. A critical analysis of selected themes and issues in contemporary sociology. Prerequisites: Saciology 110 and 421.3 credits.
128. Independent study. Directed work in areas approved by the instructor. Prerequisites: 18 hours in sociology. a cumulative 2.5 average, and a contract with the instructor prior to registration for the course. 1-3 credits per semester. (Maximum of 9).

## Courses in Social Service

262. Social Welfare. An introduction to social welfare policy, past and present. stressing its functions, problems. prospects and the dynamics of the policy-making process. Prerequisite: Sociology 110. 3 credits.
263. Social Service Theory. A consideration of the various theories underlying social work intervention at the individual, family, small group, community and societal levels. Prerequisites: Sociology 110; Social Senvice 262. 3 credits.
264. Social Work Practice. Direct Methods. An examination of the knowledge, attitudes, and skills required for professional social work practice, emphasizing the methods of social casework. social group work and family therapy. Prerequisites: Sociology 110: Social Senice 331. 3 credits.
265. Social Work Practice. Indirect Methods. An examination of the knowledge, attitudes and skills required for professional social work practice, emphasizing the methods of community organization, social planning, and social action. Prerequisites: Sociology 110; Social Service 331.3 credits.
266. Family Therapy. An examination of the theory and practice of family therapy, an increasingly important mode of social work intervention. This course will focus on the contributions of several prominent family therapists, such as Satir, Minuchin, Haley, etc. Prerequisites: Sociology 232; Social Senvice 341 or permission of the departmental chairperson. 3 credits.
267. Field Experience. An extension and application of
knowledge through a supervised field placement experience in a public or private social service agency or program. Prerequisites: Sociology 110; Social Service 331 and 341. 3-12 credits per semester. (Maximum of \$15).
268. Seminar in Social Work. A detailed study of a relevant social work area: group work, family and children's casework, community organization, or social action. Prerequisites: Sociology 110; Social Service 331 and 341. 3 credits.
269. Independent study. Directed work in areas approved by the instructor. Prerequisites: Social Service 331 and 341. a cumulative 2.5 average, and a contract with the instructor prior to registration for the course. 1-3 credits per semester. (Maximum of 9 ).

## Spanish

(See Foreign Languages)



## Directories 1983-85

## EMERITI

## JAMES 0. BEMESDERFER,

1959-1976; Chaplain Emeritus. A.B., Lebanon Valley College, 1936; M.Div., United Theological Seminary, 1939; S.T.M., Lutheran Theological Seminary, Phila., 1945; S.T.D., Temple University, 1951.
RUTH ENGLE BENDER, 1918 1922; 1924-1970; Professor Emerita of Music Education. A.B., Lebanon Valley College, 1915; Oberlin Conservatory; graduate New England Conservatory.
D. CLARK CARMEAN, 19331972; Director Emeritus of Admis sions. A.B., Ohio Wesleyan University, 1926; M.A., Columbia University, 1932.
HILDA M. DAMUS, 1963-1976; Professor Emerito of German. M.A., University of Berlin and Jena, 1932; Ph.D., University of Berlin, 1945.
CARL Y. EHRHART, 1947-1983; Professor Emeritus of Philosophy and Dean Emeritus. A.B., Lebanon Valley College, 1940; M.Div., United Theological Seminary, 1943; Ph.D., Yale University, 1954.
ALEX J. FEHR, 1951-1982; Professor Emeritus of Political Science. A.B., Lebanon Valley College, 1950; M.A., Columbia University, 1957; Ph.D., Syracuse University, 1968.
GLADYS M. FENC1L, 1921-1927; 1929-1965. Registrar Emerita. A.B., Lebanon Valley College, 1921.

DONALD E. FIELDS, 1928-1930; 1947-1970: Librarian Emeritus. A.B., Lebanon Valley College, 1924; M.S., Princeton University, 1928; Ph.D., University of Chicago, 1935; A.B. in Library Science, University of Michigan, 1947.
ELIZABETH M. GEFFEN, 19581983; Professor Emerita of History. B.S. in Ed., University of Pennsylvania, 1934; M.A., 1936; Ph.D., 1958.
SAMUEL O. GRIMM, 1912-1970; Professor Emeritus of Physics. B.Pd. State Normal School, Millersville, 1910;
A.B., Lebanon Valley College, 1912; A.M., 1918; Sc.D., 1942.

JUNE EBY HERR, 1959-1980; Associate Professor Emerita of Elementary Education. B.S.. Lebanon Valley College, 1943; M.Ed., The Pennsylvania State University, 1954.
THOMAS A. LANESE, 19541978; Associate Professor Emeritus of Strings, Conducting, and Theory. B.Mus., Baldwin-Wallace College, 1938; Fellowship, Juilliard Graduate School; M.Mus., Manhattan School of Music. 1952.

ANNA D. FABER MCVAY, 19541976; Professor Emerita of English. A.B., Lebanon Valley College, 1948: M.A., University of Wisconsin. 1950; Ph.D., 1954.
SARA ELIZABETH PIEL, 19601975; Professor Emerita of Languages. A.B., Chatham College, 1928; M.A., University of Pittsburgh, 1929; Ph.D., 1938.
ROBERT W. SMITH, 1951-1983; Professor Emeritus of Music. B.S., Lebanon Valley College, 1939; M.A., Columbia University, 1950.
GEORGE G. STRUBLE, 19311970; Professor Enteritus of English. B.S. in Ed., University of Kansas, 1922; M.S. in Ed., 1925: Ph.D., University of Wisconsin, 1931
JAMES M. THURMOND, 19541979; Professor Emeritus of Music Education and Brass. Diploma, Curtis Institute of Music, 1931: A.B., American University, 1951: M.A., Catholic University, 1952; Mus.D., Washington College of Music, 1944.

## L. ELBERT WETHINGTON, 1963-

1983; Professor Emeritus of Religion. B.A., Wake Forest, 1944: B.D. Divinity School of Duke University. 1947; Ph.D., Duke University, 1949.

## ACTIVE FACULTY

MADELYN J. ALBRECHT, 1973-; Assistant Professor of Ed-
ucation. B.A., Northern Baptist Col lege, 1952; M.A., Michigan State University, 1958; Ph.D., 1972.
RICHARD C. BELL, 1966-; Assistant Professor of Chemistry. B.S., Lebanon Valley College, 1941; M.Ed., Temple University, 1955.
DAVID V. BILGER, 1974-; Adjunct Instructor in Wooduinds. B.M.. Ithaca College, 1967.
PHILIP A. BILLINGS, 1970-; Associate Professor of English. B.A., Heidelberg College. 1965: M.A., Nichigan State University, 1967; Ph.D., 1974.
G. KIP BOLLINGER, 1982-; As sistant Professor of Education. B.S. Juniata College, 1967; M.S., Temple University, 1971; D.Ed., 1979.
TERESA M. BOWERS, 1978-; Adjunct Instructor in Hooduinds. B.M., Susquehanna University. 1973; M.S.. Ohio State University, 1974.

## JAMES H. BROUSSARD, 1983-;

 Associate Professor of History: Chairman of the Department of History and Political Science. A.B., Harvard University, 1963; M.A., Duke University, 1965; Ph.D., 1968.DONALD EUGENE BROWN, 1983-; Assistant Professor of Political Science. B.S., Western Illinois University, 1969; M.A., State University of New York at Binghamton, 1973; Ph.D., 1982.

## RONALD G. BURRICHTER, 1968-

 1971; 1973-; Associate Professor of Music. B.M.E., Wartburg College, 1964: M.M.. Peabody Conservatory of Music. 1968.DONALD E. BYRNE, JR., 1971-; Professor of Religion: Chairman of the Department of Religion. B.A., St. Paul Seminary, 1963; M.A., Marquette University, 1966; Ph.D., Duke University, 1972.

## SUZANNE H. CALDWELL,

 1982-; Adjunct Instructor in Organ. B.A., Lebanon Valley College, 1979; M.M., Westminster Choir College, 1982.VOORHIS C. CANTRELL, 1968-; Professor of Religion and Greek. B.A., Oklahoma City University, 1952; B.D., South ern Methodist University, 1956; Ph.D., Boston University, 1967.
ROGER D. CARLSON, 1972-; Assistant Professor of Psychology. A.B., Sacramento State College, 1968; M.A., 1969: Ph.D., University of Oregon. 1972.

## ERW1N P. CHANDLER,

1978-; Adjunct Assistant Professor of Brass. B.S.. Ithaca College, 1966; M.M., Indiana University, 1971.

ROBERT A. CLAY, 1978-; Assistant Professor of Sociology; Chairman of the Department of Sociology and Social Service. A.B., St. Mary's Seminary and University, 1962; S.T.B., Pontifical Gregorian University. 1964; M.A., Cornell Univeristy. 1974; Ph.D., 1982.
BRUCE S. CORRELL, 1972-; Assistant Professor of Physical Education. B.S., Bowling Green State University; 1971; M.Ed.. 1972.
GEORGE D. CURFMAN, 1961-; Professor of Music Education. B.S., Lebanon Valley College. 1953: M.M., University of Michigan, 1957: D.Ed., Pennsylvania State University, 1971.
DONALD B. DAHLBERG, 1980-; Assistant Professor of Chemistry. B.S., University of Washington, 1967; M.S., Cornell University, 1969; Ph.D., 1971.
ROBERT S. DAVIDON, 1970-; Professor of Psychology: Chairman of the Department of Psychology. A.B.. University of Illinois, 1940; M.A., University of Pennsylvania, 1946; Ph.D., 1951.
JAMES P. DUX, 1983-; Adjunct Professor of Chemistry. B.S., Queens College, 1942; M.A., Columbia University, 1947; Ph.D., Polytechnic Institute of New York, 1955.
SCOTT H. EGGERT, 1983-; Assistant Professor of Music. B.F.A., University of Wisconsin (Milwaukee), 1971; M.A., University of Chicago, 1974; D.M.A., University of Kansas, 1982.

VIRGINIA E. ENGLEBRIGHT, 1971-; Assistant Professor of Vice. B.M.E., Florida State University, 1969; M.M., 1970.

DALE J. ERSKINE, 1983-; Assistant Professor of Biology. B.A., University of Maine at Portland, 1974; M.A., SUNY College at Buffalo, 1976; Ph.D., University of Oklahoma, 1981.

## WILLIAM H. FAIRLAMB,

1947-: Associate Professor of Piano and Music History. Mus.B., cum laude. Philadelphia Conservatory, 1949.

WILLIAM H. FOELLER, 198 I-; Associate Professor of Economics. B.A., University of New Nexico, 1968; Ph.D.. Iowa State University, 1972.
ARTHUR L. FORD, 1965-; Professor of English: Chairman of the Department of English. A.B., Lebanon Valley College, 1959; M.A., Bowling Green State University, 1960; Ph.D., 1964.

MICHAEL D. FRY, 1983-; Assistant Professor of Mathematics. B.A., Immaculate Heart College, 1975; Ph.D., University of Illinois, 1980.

LEONARD S. GEISSEL, JR., 1979-; Assistant Professor of Music Education and Brass. B.A., University of Delaware. 1957; M.A., University of Jowa, 1971.
PIERCE A. GETZ, 1959—; Professor of Organ. B.S., Lebanon Valley College, 1951; M.S.M.. Union Theological Seminary School of Sacred Music. 1953; A.M.D., Eastman School of Music, 1967.
RICHARD H. GIFFORD, JR., 198I-; Adjunct Assistant Professor of Accounting. B.A., Gettysburg College, 1974; M.B.A., Pennsylvania State University.
MICHAEL A. GRELLA, 1980 -; Associate Professor of Education; Chairman of the Department of $E d$ ucation. B.A., St. Mary's College, 1958; M.A., West Virginia University. 1970; Ed.D., 1974.

## KLEMENT M. HAMBOURG,

1982-; Associate Professor of Music; A.T.C.M., Royal Conservatory of Music, 1946; L.R.A.M.. Royal Academy of Music, 1962; A.R.C.M., Royal

College of Music, 1962: L.T.C.L., Trinity College of Music (London), 1965; Fellow. 1966; D.M.A., University of Oregon, 1977.
CAROLYN R. HANES, 1977-; Assistant Professor of Saciology. B.A., Central Michigan University, 1969; M.A., University of New Hampshire, 1973; Ph.D., 1976.
*BRYAN V. HEARSEY, 1971-; Professor of Mathematics. B.A., Western Washington State College, 1964; MA., Washington State University, 1966; Ph.D., 1968.
ALAN G. HEFFNER, 1980-; Assistant Professor of Economics and Business Administration. B.A., Sonoma State College, 1970; M.A., California State University, 1973; Ph.D., Purdue University, 1976.
JOHN H. HEFFNER, 1972—; Associate Professor of Philosophy; B.S.. Lebanon Valley College, 1968; A.M., Boston University, 1971; Ph.D., 1976.

## PATRICIA J. HILDEBRAND,

1983; Visiting Assistant Professor of Mathematical Sciences. B.S., Harvey Mudd College, 1963; M.A., Temple University, 1967; Ph.D., University of Pennsylvania, 1978.
BARRY L. HURST, 1982-; Assistant Professor of Physics. B.S., Juniata College, 1972; Ph.D., University of Delaware, 1982.
DIANE M. IGLESIAS, 1976-; Associate Professor of Spanish; Chairman of the Department of Foreign Languages. B.A., Queens College, 1971; M.A., 1974; Ph.D., 1979.
R1CHARD A. ISKOWITZ, 1969-; Associate Professor of Art; Chairman of the Department of Art. B.F.A., Kent State University, 1965; M.F.A., 1967.
L. EUGENE JACQUES, 1975-; Assistant Professor of Education, B.A., University of Pittsburgh, 1937: M.Ed., 1941; D.Ed., 1952.
RICHARD A. JOYCE, 1966-: Assistant Professor of History. A.B., Yale University, 1952; M.A., San Francisco State College, 1963.
JOHN P. KEARNEY, 1971-; Professor of English. B.A., St. Benedict's
*Sabbatical leave, second semester

College, 1962; M.A., University of Michigan, 1963; Ph.D., University of Wisconsin, 1968.
JAMES R. KLOCK, 1981—; Adjunct Instructor in Percussion. B.M., West Virginia University, 1979.
NEVELYN J. KNISLEY, 19541958; 1963; 1970—; Adjunct Assistant Professor of Piano. Mus.B., Oberlin Conservatory of Music, 1951; M.FA., Ohio University, 1953.

IACK KRONE, 1982—; Adjunct Instructor in Music. B.S., West Chester State College, 1959; M.M.Ed., Pennsylvania State University, 1963.
DAVID I. LASKY, 1974-; Professor of Psychology. A.B., Temple University, 1956; M.A., 1958; Ph.D., 1961.
ROBERT C. LAU, 1968-; Professor of Music; Chairman of the Department of Music. B.S., Lebanon Valley College, 1965; M.A., Eastman School of Music, 1970; Ph.D., Catholic University, 1979.
JEAN O. LOVE, 1954-; Professor of Psychology. A.B., Erskine College, 1941: M.A., Winthrop College, 1949; Ph.D., University of North Carolina, 1953.

PHILIP MALPAS, 1983-; Adjunct Associate Professor of Music. B.Mus., University of Michigan, 1941; M.Mus., University of Michigan, 1947.

LEON E. MARKOWICZ, 1971-; Associate Professor of English. A.B., Duquesne University, 1964; M.A., University of Pennsyl vania, 1968; Ph.D., 1972.
JOERG W. P. MAYER, 1970-; Professor of Mathematics. Dipl. Math., University of Giessen. 1953; Ph.D., 1954.

## ROBERT T. MEASHEY,

1980-: Adjunct Instructor in Trumpet. B.A., Lebanon Valley College, 1977
DEBORAH MILAN, 1982—; Adjunct Instructor in Music. B. Mus., Boston University, 1981.
OWEN A. MOE, JR., 1973-; Assistant Professor of Chemistry. B.A., St. Olaf's College, 1966: Ph.D., Purdue University, 1971.
PHILIP G. MORGAN, 1969—; Assistant Professor of Voice. B.M.E.,

Kansas State College, 1962; M.S., 1965.
HOWARD A. NEIDIG, 1948-; Professor of Chemistry; Chairman of the Department of Chemistry. B.S., Lebanon Valley College, 1943; M.S., University of Delaware, 1946; Ph.D., 1948.

WILMER G. NOLT, 1983-; Adjunct Instructor of Chemistry. B.S., Millersville State College, 1965; M.Ed., University of Michigan, 1947.

JOHN D. NORTON, 1971—; Associate Professor of Political Science. B.A., University of Illinois, 1965; M.A., Florida State University. 1967 : Ph.D., American University, 1973.
AGNES B. O'DONNELL, 1961—; Professor of English. A.B., Immaculata College, 1948; M.Ed., Temple University, 1952; M.A.. University of Pennsylvania, 1967; Ph.D., 1976.
J. ROBERT O'DONNELL, 1959-; Associate Professor of Physics. B.S., The Pennsylvania State University, 1950; M.S., University of Delaware, 1953.
DWIGHT PAGE, 1982-; Assistant Professor of Fłench and German. B.A., Davidson College, 1975; M.A., Harvard University, 1976; Ph.D., 1981.

RAY R. PEARL, 1983-; Adjunct Instructor of Business Administration. B.S., Waynesburg College, 1967; M.B.A., Western New England CoIlege, 1971.

GERALD J. PETROFES, 1963-; Associate Professor of Physical Education; B.S., Kent State University, 1958; M.Ed., 1962.
SIDNEY POLLACK, 1976-; Assistant Professor of Biology. B.A., New York University, 1963; Ph.D., University of Pennsylvania, 1970.
HOWARD L. RAITEN, 1979-; Assistant Professor of Sociology. B.S., City University of New York, 1965; M.S.W., University of Hawaii, 1976.
O. KENT REED, 1971-; Associate Professor of Physical Education; Chairman of the Department of Physical Education. B.S. in Ed., Otterbein College, 1956; M.A. in Ed.. Eastern Kentucky University, 1970.

KEVIN C. REIDY, 1981—; Instructor in Economics and Business Administration. B.A., Gettysburg College, 1975; J.D., State University of New York at Buffalo, 1978.

## WILLIAM M. RICHARDSON,

 1983-; Instructor of Accounting. B.A., Vanderbilt University, 1959. M.A., Ohio State University, 1967.C. ROBERT ROSE, 1981-; Associate Professor of Music. B.M.Ed., Southern Illinois University, 1964; M.M., 1966; D.M., Indiana University, 1978.

JACOB L. RHODES, 1957-; Professor of Physics: Chairman of the Department of Physics. B.S., Lebanon Valley College, 1943; Ph.D., University of Pennsylvania, 1958
GAIL SANDERSON, 1983-; Instructor in Accounting. B.A., Hobart and William Smith Colleges, 1970; M.B.A., Boston University, 1977.

JAMES W. SCOTT, 1976-; Associate Professor of Cerman. B.A., Juniata College, 1965: Ph.D., Princeton University, 1971.
DAVID S. SEITZ, 1981—; Instructor in Economics and Business Administration. B.S., University of Delaware, 1957; B.S., York College of Pennsylvania, 1977; M.B.A., 1980.
DAVID STAFFORD, 1981—; $A d-$ junct Instructor in Guitar. B.M., Combs College of Music, 1967.
RICHARD G. STONE, 1976-;
Assistant Professor of Economics and Business Administration; Chairman of the Department of Business Administration. A.B., Lebanon Valley College, 1957; M.S., Franklin \& Marshall College, 1969; M.B.A., University of Connecticut, 1972.
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 1967-: Associate Professor of Philosophy; Chairman of the Department of Philosophy. A.B., Trinity University, 1957; M.A., University of Texas, 1963.C. F. JOSEPH TOM, 1954—; Professor of Economics and Business Administration. B.A., Hastings College, 1944: M.A., University of Chicago. 1947 : Ph.D.. 1963.
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## MAJOR CHOICE

(Please number the majors in order of your preference. Select no more than three.)

## $\square$ Accounting

$\square$ Actuarial Science
$\square$ Allied Health SciencesBiochemistryBiologyBusiness Administration

## $\square$ Chemistry

Computer ScienceEconomicsElementary EducationEnglishForeign LanguageFrench$\square$ German
$\square$ History
$\square$ Individualized MajorInternational BusinessMathematicsMedical TechnologyMusic
$\square$ Music Education
$\square$ Philosophy
$\square$ Physics
$\square$ Political SciencePsychologyReligion
$\square$ Sacred MusicSocial Science
$\square$ Social Service $\square$ Sociology $\square$ Spanish $\square$ Undecided

Thomas Jefferson University College of Allied Health Sciences:

Cytotechnology

$\square$ Dental Hygiene
$\square$ Medical Technology
$\square$ Nursing
$\square$ Occupational Therapy
$\square$ Physical Therapy
$\square$ Radiologic Technology

## PROFESSIONAL PROGRAMS

(Please check the professional area(s) of interest to you (optional):DentistryEngineering
$\square$ Forestry
$\square$ LawMedicineMinistry
$\square$ Optometry
$\square$ Osteopathy
$\square$ Pharmacy
$\square$ Podiatry
$\square$ Veterinary Medicine
$\square$ Other

Please explain why you chose to apply to Lebanon Valley College: (if more space is necessary, use additional sheet.)

I am enclosing the application fee of $\$ 20.00$ and understand this fee is not refundable. In signing this formal application, I signify the information provided is to the best of my knowledge and belief accurate and correct. If accepted to the College, I agree to abide by the rules and regulations of the College.

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## Campu


(1) Administration Bui
(2) Allan W. Mund Col
(3) Arnold Field
(4) Art Studio
(5) Blair Music Center
(6) Carnegie Bldg. (Ad
(7) Centre Hall
(8) Faculty Offices, 10
(9) Faculty Offices, 11 :
(11) Funkhouser HaII
(12) Gladys M. Fencil B
(13) Gossard Memorial

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## Campus Map and Key


(1) Administration Building
(2) Allan W. Mund College C
(3) Allan W. Mund College Center
(3) Arnold Field
(5) Blair Music Center
© Carnegie Bldg. (Admissions)
(7) Centre Hall
(®) Faculty Of
(8) Faculty Offices, 104 College Ave
(9) Faculty Offices, 112 College Ave (11) Funkhouser Hal (13) Gossard Memorial Library

[^1]272) Carber Science Center
(8) Maintenance Center and Security Office
Sheridan Hal
32) South Entrance (Bollinger) Plaza (2) United Methodist Church
(34)Vickroy Hall
(3) Wagner House
(37) West Hall
(37) West Annex


NAME
ADDRESS
 Last
$\qquad$

| City |  | State | ZIP | County |
| :---: | :---: | :---: | :---: | :---: |
| TELEPHONE | F- | SOCLAL SECURITY NO. |  |  |

HIGH SCHOOL
Year of High School Graduation $\qquad$
Transter Student? Yes $\qquad$ College or Universily
No
Proposed College Major(s): (a)

(c)


Extra Curricular Interests
1 would Like an Interview \& Tour
Date
$\qquad$
Other Material or Information Needed

I Would Like a Phone Call From an Admissions Counselor $\qquad$
— . - $\ldots$.



Proposed College Major(s): (a)
$\qquad$
$\qquad$
$\qquad$
would Like an Interview \& Tour
Date


[^2]
[^0]:    32 Admissions

[^1]:    (12) Hammond Hall
    (15) Heating Plant
    (17) Infirmary
    (17) Keister Hall
    (19) Laughlin Hall
    (®) Lynch Memorial Gymnasium
    (21) Maintenance Annex
    (3) Mary Capp Green Hall
    (23) Miller Chapel
    (23) North College

[^2]:    Other Material or Information Needed:

