3-1-1963

1963-1964 Catalog

College of the Holy Cross

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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Trustees</td>
<td>5</td>
</tr>
<tr>
<td>Academic Calendar</td>
<td>6</td>
</tr>
<tr>
<td>Officers of Administration</td>
<td>8</td>
</tr>
<tr>
<td>Faculty Committees</td>
<td>10</td>
</tr>
<tr>
<td>Officers of Instruction</td>
<td>11</td>
</tr>
<tr>
<td>The College</td>
<td>23</td>
</tr>
<tr>
<td>History</td>
<td>23</td>
</tr>
<tr>
<td>Educational System</td>
<td>26</td>
</tr>
<tr>
<td>Institutes</td>
<td>28</td>
</tr>
<tr>
<td>Affiliations</td>
<td>28</td>
</tr>
<tr>
<td>Campus Buildings</td>
<td>30</td>
</tr>
<tr>
<td>General Services</td>
<td>32</td>
</tr>
<tr>
<td>Student Health</td>
<td>32</td>
</tr>
<tr>
<td>Accident Insurance</td>
<td>32</td>
</tr>
<tr>
<td>Student Employment</td>
<td>32</td>
</tr>
<tr>
<td>Library</td>
<td>32</td>
</tr>
<tr>
<td>Counseling Services</td>
<td>33</td>
</tr>
<tr>
<td>Counseling Center</td>
<td>33</td>
</tr>
<tr>
<td>Faculty Advisors</td>
<td>34</td>
</tr>
<tr>
<td>Alumni Placement Bureau</td>
<td>35</td>
</tr>
<tr>
<td>Cultural Events</td>
<td>35</td>
</tr>
<tr>
<td>Dormitory Accommodations</td>
<td>35</td>
</tr>
<tr>
<td>Graduate Studies Advisor</td>
<td>35</td>
</tr>
<tr>
<td>Language Laboratory</td>
<td>35</td>
</tr>
<tr>
<td>Reserve Officers’ Training Corps Programs</td>
<td>36</td>
</tr>
<tr>
<td>College Expenses</td>
<td>37</td>
</tr>
<tr>
<td>Scholarships and Loans</td>
<td>39</td>
</tr>
<tr>
<td>Admission to the College</td>
<td>50</td>
</tr>
<tr>
<td>General</td>
<td>50</td>
</tr>
<tr>
<td>Application</td>
<td>50</td>
</tr>
</tbody>
</table>
### Academic Information

- General
- Grading System
- Quality Points
- Honor Grades
- Requirements for Good Standing
- Special Studies Program
- Mid-Semester Survey
- Academic Probation
- Academic Failure
- Conditional Failure
- Summer Session Work
- Extra Courses
- Withdrawal from Course
- Curriculum and Course Changes
- Foreign Study
- Voluntary Withdrawal from College
- Transcript of College Record

### Requirements for Degrees

- Bachelor of Arts, Bachelor of Science
- Oral Examinations
- Public Presentations
- Honors
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation for Professional Study</td>
<td>63</td>
</tr>
<tr>
<td>Reserve Officers’ Training Corps Students</td>
<td>63</td>
</tr>
<tr>
<td>Curriculum Requirements</td>
<td>64</td>
</tr>
<tr>
<td>Courses of Instruction</td>
<td>69</td>
</tr>
<tr>
<td>Biology</td>
<td>69</td>
</tr>
<tr>
<td>Chemistry</td>
<td>71</td>
</tr>
<tr>
<td>Classics</td>
<td>75</td>
</tr>
<tr>
<td>Economics</td>
<td>79</td>
</tr>
<tr>
<td>Education</td>
<td>83</td>
</tr>
<tr>
<td>English and Fine Arts</td>
<td>84</td>
</tr>
<tr>
<td>History and Political Science</td>
<td>88</td>
</tr>
<tr>
<td>Mathematics</td>
<td>92</td>
</tr>
<tr>
<td>Military Science</td>
<td>95</td>
</tr>
<tr>
<td>Modern Languages</td>
<td>101</td>
</tr>
<tr>
<td>Philosophy</td>
<td>106</td>
</tr>
<tr>
<td>Physics</td>
<td>111</td>
</tr>
<tr>
<td>Sociology</td>
<td>114</td>
</tr>
<tr>
<td>Theology</td>
<td>116</td>
</tr>
<tr>
<td>Graduate Curriculum in Chemistry</td>
<td>119</td>
</tr>
<tr>
<td>Summer Institutes</td>
<td>122</td>
</tr>
<tr>
<td>Degrees Conferred 1962</td>
<td>125</td>
</tr>
<tr>
<td>Awards</td>
<td>132</td>
</tr>
<tr>
<td>College Organizations</td>
<td>138</td>
</tr>
<tr>
<td>Honor Societies</td>
<td>144</td>
</tr>
<tr>
<td>College Publications</td>
<td>145</td>
</tr>
<tr>
<td>Jesuit Educational Association</td>
<td>146</td>
</tr>
<tr>
<td>Appendix, Library Donors</td>
<td>147</td>
</tr>
<tr>
<td>Index</td>
<td>150-152</td>
</tr>
<tr>
<td>Communications Directory</td>
<td>152</td>
</tr>
</tbody>
</table>
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Pastor, St. Stephen's Church, Worcester
Manufacturer
Gynecologist
# Academic Calendar

**September 1963-June 1964**

## FALL TERM

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 13</td>
<td>Friday</td>
<td>Registration for Freshmen.</td>
</tr>
<tr>
<td>Sept. 14</td>
<td>Saturday</td>
<td>Freshmen Orientation.</td>
</tr>
<tr>
<td>Sept. 16</td>
<td>Monday</td>
<td>Freshmen Orientation.</td>
</tr>
<tr>
<td>Sept. 17</td>
<td>Tuesday</td>
<td>Registration for Sophomores</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>Wednesday</td>
<td>Registration for Juniors and Seniors.</td>
</tr>
<tr>
<td>Sept. 19</td>
<td>Thursday</td>
<td>Fall Term begins.</td>
</tr>
<tr>
<td>Nov. 1</td>
<td>Friday</td>
<td>Mass of the Holy Spirit.</td>
</tr>
<tr>
<td>Nov. 4</td>
<td>Monday</td>
<td>Feast of All Saints, a holiday.</td>
</tr>
<tr>
<td>Nov. 27</td>
<td>Wednesday</td>
<td>Mid-Semester Survey and Warning.</td>
</tr>
<tr>
<td>Dec. 2</td>
<td>Monday</td>
<td>After 10:30 A.M., Thanksgiving Recess.</td>
</tr>
<tr>
<td>Dec. 20</td>
<td>Friday</td>
<td>Classes resumed.</td>
</tr>
<tr>
<td>Jan. 6</td>
<td>Monday</td>
<td>Christmas Recess.</td>
</tr>
<tr>
<td>Jan. 11</td>
<td>Saturday</td>
<td>Classes resumed.</td>
</tr>
<tr>
<td>Jan. 21</td>
<td>Tuesday</td>
<td>First Term Examinations begin.</td>
</tr>
</tbody>
</table>

## SPRING TERM

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Details</th>
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</thead>
<tbody>
<tr>
<td>Jan. 27</td>
<td>Monday</td>
<td>Second Semester begins.</td>
</tr>
<tr>
<td>Feb. 21</td>
<td>Friday</td>
<td>Holiday.</td>
</tr>
<tr>
<td>Mar. 13</td>
<td>Friday</td>
<td>College Retreat begins after last class.</td>
</tr>
<tr>
<td>Mar. 16</td>
<td>Monday</td>
<td>College Retreat ends.</td>
</tr>
<tr>
<td>Mar. 17-21</td>
<td>Tuesday-Saturday</td>
<td>Reading Week.</td>
</tr>
<tr>
<td>Mar. 23</td>
<td>Monday</td>
<td>Easter Vacation begins.</td>
</tr>
<tr>
<td>Mar. 29</td>
<td>Sunday</td>
<td>Easter Sunday.</td>
</tr>
<tr>
<td>Mar. 31</td>
<td>Tuesday</td>
<td>Classes resumed.</td>
</tr>
<tr>
<td>April 20</td>
<td>Monday</td>
<td>Holiday.</td>
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<tr>
<td>May 7</td>
<td>Thursday</td>
<td>Ascension Thursday, a holiday.</td>
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<tr>
<td>May 16</td>
<td>Saturday</td>
<td>Second Term Examinations begin.</td>
</tr>
<tr>
<td>June 6</td>
<td>Saturday</td>
<td>Alumni Day.</td>
</tr>
<tr>
<td>June 9</td>
<td>Tuesday</td>
<td>Baccalaureate Exercises.</td>
</tr>
<tr>
<td>June 10</td>
<td>Wednesday</td>
<td>Commencement Day.</td>
</tr>
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<td>1963</td>
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<tr>
<td><strong>SEPTEMBER</strong></td>
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<td><strong>SUN</strong></td>
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<tr>
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<td>4</td>
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<tr>
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<td>5</td>
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<tr>
<td><strong>FRI</strong></td>
<td>6</td>
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</tr>
<tr>
<td><strong>SAT</strong></td>
<td>7</td>
<td><strong>SAT</strong></td>
</tr>
<tr>
<td><strong>OCTOBER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUN</strong></td>
<td>1</td>
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</tr>
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<td><strong>THU</strong></td>
<td>5</td>
<td></td>
</tr>
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<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>SAT</strong></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>NOVEMBER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUN</strong></td>
<td>1</td>
<td></td>
</tr>
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<td>3</td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>SAT</strong></td>
<td>7</td>
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<tr>
<td><strong>DECEMBER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUN</strong></td>
<td>1</td>
<td></td>
</tr>
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<td>2</td>
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<td>3</td>
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<td></td>
</tr>
<tr>
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<td>5</td>
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</tr>
<tr>
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<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>SAT</strong></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>JANUARY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUN</strong></td>
<td>1</td>
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</tr>
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<td>3</td>
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<td></td>
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<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>SAT</strong></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>FEBRUARY</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>SUN</strong></td>
<td>1</td>
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</tr>
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<td>6</td>
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</tbody>
</table>
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Kimball Hall
Fenwick Hall
Kimball Hall
Fenwick Hall
Fenwick Hall
Dinand Library
Fenwick Hall
Alumni Hall
Alumni Hall
Fenwick Hall
Fenwick Hall
Fenwick Hall
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  Manager of Kimball Dining Hall

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  Director of Public Relations
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  O'Kane Hall

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  Moderator of Sodality
  Fenwick Hall

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ACADEMIC STANDING


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FACULTY FELLOWSHIPS AND PUBLICATIONS


GRADUATE STUDIES


HONORS PROGRAM AND SPECIAL STUDIES

PRE-MEDICAL AND PRE-DENTAL


RANK AND TENURE


RESEARCH


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  Beaven Hall

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  3 Forsberg St.

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  Instructor, French
  14 June St., Oxford

  Instructor, Classics
  Chairman, Department of Classics
  Wheeler Hall

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  91 Eureka St.

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  Wheeler Hall

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  Graduate Chemistry Department
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_Instructor, French_ 2 King St.

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_Instructor, Russian_ Box 80, Wood St., Westboro

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_Professor, Biology_ Beaven Hall

Chairman, Department of Biology

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_Associate Professor, Economics_ On Leave

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_Associate Professor, Economics_ Fenwick Hall

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_Associate Professor, English_ 14 West St., Westboro

Director, Special Studies Program

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_Associate Professor, Biology_ 73 Willow Hill Rd., Cherry Valley

Henry S. Carey, Jr., Capt., USAF
_Instructor, Air Science_ 17 Mt. View Ave., Auburn

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_Instructor, Greek_  
Healy Hall

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_Professor, Theology_  
Hanselman Hall

Rev. William J. V. E. Casey, S.J., M.A., Boston College; S.T.L., Weston College  
_Professor, Theology_  
On Leave

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_Associate Professor, Psychology_  
15 Commodore Rd.

George J. Charest, M.S., College of the Holy Cross  
_Professor, Chemistry_  
138 Richmond Ave.

Rev. James K. Connolly, S.J., M.A., Boston College; S.T.L., Weston College  
_Professor, Physics_  
Chairman, Department of Physics  
Fenwick Hall

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9 William St.

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21 Island Dr.

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The College

HISTORY

Presidents of Holy Cross

1843-1962

1843-45 ................. Very Rev. Thomas F. Mulledy, S.J.
1845-48 .................. Very Rev. James Ryder, S.J.
1848-51 .................. Very Rev. John Early, S.J.
1854-57 .................. Very Rev. Peter J. Blenkinsop, S.J.
1861-67 .................. Very Rev. James Clark, S.J.
1867-69, 1883-87 ........ Very Rev. Robert W. Brady, S.J.
1878-83 .................. Very Rev. Edward D. Boone, S.J.
1887-89 .................. Very Rev. Samuel Cahill, S.J.
1889-93 .................. Very Rev. Michael O'Kane, S.J.
1893-95 .................. Very Rev. Edward A. McGurk, S.J.
1906-11 .................. Very Rev. Thomas E. Murphy, S.J.
1927-33 .................. Very Rev. John M. Fox, S.J.
1945-48 .................. Very Rev. William J. Healy, S.J.
In 1843 the Most Rev. Benedict Joseph Fenwick, second Bishop of Boston, founded the College of the Holy Cross. He gave the College the name of his Cathedral with the motto and seal of the Boston Diocese. He entrusted the direction of the College to the Fathers of the Society of Jesus. Classes began on November 2, 1843, and in 1844 the first college building was erected to accommodate ninety students. However, with the exception of the east wing, this building was destroyed by fire on July 14, 1852. With the cooperation of the Bishop of Boston, Most Rev. John B. Fitzpatrick, the Fathers of the Society provided for the building of Fenwick Hall, and the college was reopened in October, 1853, with a newly enrolled freshman class. The first graduation class of this new period was that of 1858. From 1849 to 1853 and from 1858 to 1865, degrees were conferred by Georgetown University. In 1865 the college received its charter from the state and conferred its own degrees.

In 1868 a west wing was added and the central building was raised one story and capped with two stately towers. In 1875 the east wing of the building was raised and extended. In 1893 O'Kane Hall, really a wing of Fenwick Hall, was built, and classes were held in the new addition in the following year. By 1904 the College enrollment had passed the five hundred mark. To take care of the increased enrollment Alumni Hall was built under the direction of the President, Rev. Joseph F. Hanselman, S.J. With continued growth, a new dormitory, Beaven Hall, was opened in 1914, in the Presidency of Rev. Joseph N. Dinand, S.J. It was named after Rt. Rev. Thomas D. Beaven, '70, Bishop of Springfield, who had sponsored its construction.

By 1920 the student body had increased to almost eight hundred so that a new dormitory, Loyola Hall, was opened under the direction of Rev. James J. Carlin, S.J., in 1922. In 1924 St. Joseph's Memorial Chapel was dedicated. The Dinand Memorial Library was opened in 1927, under the Presidency of Rev. John M. Fox, S.J. Kimball Hall, the general student center, was erected in 1935, under the aegis of President Francis J. Dolan, S.J. Wheeler Hall was opened in January, 1940, in the Presidency of Rev. Joseph R. N. Maxwell, S.J.

In 1941 a peacetime Naval ROTC Program was inaugurated, but it was soon converted into the V1, V5, V7 and V12 wartime programs. In the wartime centennial year of 1943, our student body numbered 1,200. On June 26, 1946 the naval wartime programs were discontinued, and the College reverted to its peacetime status.

In 1947 under the Presidency of Rev. William J. Healy, S.J., an intramural Gymnasium was added to the College buildings. In the following year, Station WCHC was dedicated. In 1951, a new Biology Building was dedicated by the President, Rev. John A. O'Brien, S.J. On July 1, 1951, the Air Force Reserve Officers Training Corps was established at the College, and training began in September. By 1954 the enrollment was over 1,800 so that two Dormitories, Hanselman and Lehy, came into existence under the direction of Rev. John A. O'Brien, S.J. In 1959, in the era of Sputnik and the missile age, the modern emphasis upon science was reflected with the dedication by President William A. Donaghy, S.J. of the Haberlin Science Building. This twelfth building was named in honor of the memory of Rt. Rev. Richard J. Haberlin, P.A., Class of 1906.

On June 16, 1960, Very Reverend Raymond J. Swords, S.J., became the twenty-fourth President of the college. Under his direction two new dormitories have been constructed on the upper campus level. The most ambitious development program in
the history of the college has been undertaken for the addition of a new faculty residence; an infirmary for students, faculty and college personnel; the conversion of Fenwick and O'Kane Halls into an administrative center, with new alumni quarters, and with new office, dining and meeting facilities for the faculty; a social science center with an experimental psychology laboratory and student guidance center; an open stack addition to the college library; renovation of three dormitory buildings; a new student center building with a large auditorium and complete facilities for student recreation and activities programs; a new field house and gymnasium with a seating capacity of 4,000 which will provide the first indoor sports facility designed for intercollegiate games. These seven projects will cost an estimated $10,400,000. Simultaneously, a $10,000,000 endowment fund has been announced to increase faculty salaries and to broaden significantly the scholarship program for students of high academic standing. To accomplish such undertakings, a $20,400,000 campaign for funds has been inaugurated by the college.

But in the intervening years from 1843 to the present, amidst the changes which have come through noteworthy additions to the physical plant, the establishment of new organizations for students and alumni and administrative reorganizations, two strands of unity are clearly visible: namely, the grand and noble purpose of education and the primacy of the spiritual. The first element of traditional unity, constancy of educational purpose, was stressed by President Theodore Roosevelt in his Commencement Address of June 21, 1905, when he stated:

It is eminently characteristic of our nation that we should have an institution of learning like Holy Cross, in which the effort is constantly made to train, not merely the body and mind, but the soul of man, that he should be made a good American, and a good citizen of our country.

The second unity, that of the primacy of the spiritual, was expressed by Rev. William A. Donaghy, S.J., when he wrote:

But with all the change that has swirled about this “tall mountain citied to the top, crowded with culture” there are also comforting permanences. The basic undergraduate spirit of friendliness and fraternity, the deep spirituality which morning after morning crowds the altar rails and finds secretive figures in the dim chapel, the bright idealism so much in contrast to the cynicism on all sides, these, thanks to God, have not altered. And I feel certain that if Bishop Fenwick were to return, he would undoubtedly be confused by the material expansion but at the same time he would be consoled by the spiritual continuity.

President Raymond J. Swords, S.J. brought both traditional unities into contemporary focus when he declared:

Holy Cross is openly and unashamedly committed to the acceptance and propagation of that whole set of values that goes by the name of Christian Humanism—those intellectual, cultural and spiritual values that were originated for us by the Jew and Greek, and must be preserved by us as Christian and American.

... Holy Cross holds a triple portfolio in developing men who will love God intelligently, their country nobly, and their fellowman selflessly.
EDUCATIONAL SYSTEM

Objectives

Since the turn of the century, we have been a restless and even rootless people. With the tremendous scientific advances of our time, traditions toppled and old-time certitudes corroded, so that it became the fashion to be intellectually contemptuous of our academic ancestors; respect for history was regarded as an ingenuous nostalgia for what would never return; and man's past was well forgotten because his future seemed so fantastic. True, two of the bloodiest wars of all time, international tensions, the decay of morals, the collapse of so many values which the centuries had canonized, gave pause to thinking men.

No, tradition is not a musty museum in which we see only dusty, shrouded and outmoded ideas. The world changes but man does not. His ideas are constantly refurbished and replaced but his capacity to make decisions, to love or hate or be indifferent does not change. The Jesuit educational system, enamored of the past and yet eager for the future with all that it may hold, is based on this fundamental immutability of man. That system is summed up in the Ratio Studiorum, a schedule of studies which aims at the production of what we might simply call a civilized man. It is obvious that this end product is still worthwhile and is, in fact, desperately needed. Technological training, however excellent, will not in itself flower into such an educational result.

We have discovered how "to manipulate things in the service of human purposes," writes Elton Mayo of the Department of Business Administration at Harvard, but we have lost the moral perspective necessary to purify those purposes. Lecomte du Nouy observes that our technical achievements have far outstripped our moral capacities and remarks that the great ideas of history, the "lever-ideas" by which man raised himself and his status, have always been religious concepts. The College of the Holy Cross stands firmly convinced of and committed to that historical principle.

"It must never be forgotten," wrote Pius XI, himself a scholar of formidable stature and international reputation, "that the subject of Catholic education is man whole and entire, soul united to body in unity of nature, with all his faculties natural and supernatural, such as right reason and revelation show him to be; man, therefore, fallen from his original state, but redeemed by Christ and restored to the supernatural condition of adopted sons of God . . . The proper and immediate end of Christian education is to cooperate with divine grace in forming the true and perfect Christian, that is, to form Christ Himself in those regenerated by Baptism. The true Christian does not renounce the activities of this life, he does not stunt his natural faculties; but he develops and perfects them, by coordinating them with the supernatural." Leo XIII, likewise a giant of mind, had previously confirmed the same outlook.

This is not to confuse piety with the strictest and more comprehensive kind of education. Etienne Gilson well writes: "piety never dispenses with techniques. . . No one, nor anything obliges the Christian to busy himself with science, art or philosophy, for other ways of serving God are not wanting; but if that is the way of serving God that he has chosen, the end itself, which he proposes for himself in studying them, binds him to excellence. He is bound by the very intention which guides him, to became a good savant, a good philosopher, or a good artist." Dietrich von Hildebrand has made the
same point. "A Catholic university would have no meaning if it were nothing but a collection of Catholic men of thought and science, while following the model of the modern university in its general atmosphere. It requires the conscious production of an atmosphere filled by Christ, an environment imbibed with prayer. . . . The students must breathe a Catholic air and Catholic spirit which will make them into anti-pedantic, humble, faithful, metaphysically courageous men of winged intelligence and yearning, and therefore capable of truly adequate and objective knowledge." He is, of course, in the spirit of Newman who complained bitterly of the segregation of knowledge and religion: "It will not satisfy me, what has satisfied so many, to have two independent systems, intellectual and religious, going at once side by side, by a sort of division of labor, and only accidentally brought together. . . . I want the same roof to contain both the intellectual and moral discipline. Devotion is not a sort of finish given to the sciences; nor is science a sort of feather in the cap, if I may so express myself, an ornament and set-off to devotion. I want the intellectual layman to be religious and the devout ecclesiastic to be intellectual."

That is the educational credo of Holy Cross. It is uncompromisingly intellectual, intransigently Catholic, and the history of the College which was founded in 1843 and her thousands of graduates have proved to us that this traditional approach needs constant review to keep abreast of progress but no basic revision to subscribe to those educational expediencies which from day to day announce themselves as final educative solutions.

Curriculum

Holy Cross College, committed to the belief in the excellence of the Liberal Arts in producing "the Christian man," offers integrated programs of studies to train the mind of the student in accurate, logical thinking through courses in Logic, Mathematics and the Natural Sciences. Development of precise oral and written expression is the aim of courses in Composition, Rhetoric and Language, ancient and modern, while the imagination is stimulated by the study of Poetry. The student recognizes the essential immutability of man portrayed in Literature of the past and present and is made aware of the history of man as well as the contemporary scene by studies in History, Sociology, Philosophy and Theology.

This is the basic pattern of the Liberal Arts program at Holy Cross College and it provides an opportunity for the student to build solid undergraduate formation for study in major fields of concentration in the following areas: Biology, Chemistry, Classics, Economics, English, History and Political Science, Mathematics, Modern Languages, Philosophy, Physics, Psychology and Sociology.

Co-Curricular Activities

Ancillary to this pattern are carefully planned co-curricular activities which spring from the courses in which the student is enrolled and which offer him the opportunity to explore the values of his curriculum: Debating, Dramatics, Publications, Student Organizations for Economics, History, Languages, Mathematics, Philosophy, Political Science, Science, and Theology.

Religious Training

Holy Cross College insists that in every stage of intellectual development religious instruction be interwoven with training in the secular branches of knowledge. This instruc-
tion aims at planting in the heart such principles of rectitude as will afterwards serve as a guide, a warning, a stimulus. Since Religion is the highest concern of man, Theology is a prescribed subject for Catholic students.

As a consequence of the belief in the pervasive character of religion, opportunities for the foundation of life-long practices of Christian virtue are traditional to the Campus. Integral to the college year and a base for academic pursuits is the Annual Retreat, during which are given the Spiritual Exercises of St. Ignatius Loyola. Catholic students are obliged to attend all the exercises of the Retreat.

Central in the life of a Christian man is the Holy Sacrifice of the Mass. The Mass is man's social response to the need of his nature to worship God, while from it he derives the inspiration and spiritual strength to encounter small obstacles in life with Christian patience and big ones with the courage for victory. It is a holy tradition at Holy Cross that all Catholic students attend daily Mass. The tradition is honored by a college regulation of obligatory attendance.

At the beginning of each year there is offered the student Religion Motivation Week. At this time, by a series of instructive meditations concerning the personal and spiritual obligations of the Christian college man, the academic year is inaugurated and motivation generated for the intellectual and moral discipline of the life of a scholar.

Two Jesuit priests are Spiritual Counselors for the guidance of students in religious and spiritual matters. These Counselors are assisted by other Jesuit priests who are assigned to the residence halls.

Discipline

It is the constant purpose of the College to encourage the growth of personal and corporate responsibility consistent with "the Christian man." Serious breaches of the code that demands respect for order, morality, personal honor and the rights of others will necessitate withdrawal from the College. The Administration reserves the right to dismiss a student at any time without any definite charge. Detailed regulations and customs governing discipline are found in the Student Hand-Book.

Institutes

The College is conscious of the need to contribute of its intellectual resources and the skills of its personnel to the community in which it lives. Matching its educational ideal of civic responsibility, as a civic enterprise it offers Summer Institutes for secondary school teachers in Mathematics, Science, Modern Languages. (Cf. p. 122). During the school year it offers In-Service Training, as well as a Language Institute, for teachers in the city of Worcester school system.

The Institute of Industrial Relations, conducted during the evening hours, and for which no academic credit is given, aims at the intellectual and moral enrichment of the life of participants from management and labor unions. Stress is placed on knowledge of economic conditions in industry, current labor problems, and labor law.

Affiliations

The better to promote the educational ideals of the Society of Jesus and to share in the fruits of the scholarship of other institutions of learning, the College of the Holy Cross holds institutional membership in the following organizations:


Holy Cross College is a member college of the Harvard University Graduate School of Education “The Twenty-nine College Co-operative Plan.”
CAMPUS BUILDINGS

ALUMNI HALL, given by former students, contains student residences on the upper floors, classrooms and faculty offices on the lower floors. It was opened in 1904.

THE ATHLETIC FIELDS AND INTRAMURAL GYMNASIUM contain the football gridiron, the baseball diamond, the quarter-mile track, tennis courts, basketball courts, and facilities for all other outdoor and indoor sports. The baseball diamond on Fitton Field is bounded on the east by the football gridiron which is surrounded on four sides by stadia seating nearly 23,000. Freshman Field and Alumni Field are suitable for practice and for the games of the intramural teams. On the plateau that crowns the hill south of the College buildings, as well as on the lower east level, are laid out diamonds and gridirons for intramural contests, in which the majority of undergraduates participate. The Intramural Gymnasium was constructed in 1947.

BEAVEN HALL is named in honor of the late Bishop Thomas D. Beaven of Springfield, '70, who sponsored its construction. Opened in 1914, the building contains offices on the first floor and student residences on the upper floors.

BISHOP HEALY HALL was constructed during 1962. It is named for the late Most Rev. James A. Healy, valedictorian of the college's first graduating class of 1849, the first American bishop of Negro ancestry, and the second bishop of Portland, Maine. The building contains living accommodations for students and faculty members and has a student lounge on the first floor.

CAMPION HALL was opened in 1936 to provide living quarters for a limited number of students and converted in the summer of 1962 to a student service facility.

CARLIN HALL was opened under the direction of Very Rev. James J. Carlin, S.J. as Loyola Hall in 1922 and later was re-named for Father Carlin, who was president from 1918-24. Student residences occupy the upper floors and classrooms and faculty offices are located on the lower floors.

CLARK HALL was constructed in 1962 and is dedicated to the late Very Rev. James P. Clark, S.J., president of the college from 1861-67. It contains living accommodations for students and faculty members and has a student lounge on the first floor.

DINAND LIBRARY was opened in 1927 and bears the name of the late Very Rev. Joseph N. Dinand, S.J., president of the college from 1911-18 and again during the years 1924-27. It contains more than 205,000 volumes, the Louise Imogene Guiney and David I. Walsh collections.

FENWICK HALL is the oldest of the college buildings. It is named for the founder of Holy Cross, the late Most Rev. Benedict Joseph Fenwick, second Bishop of Boston, who founded the college in 1843. Fenwick Hall was opened in 1844, destroyed by fire in 1852. It was rebuilt in 1853, with additions in 1868 and 1875. It contains administrative offices on the main floor and faculty residences on the upper floors.

THE FINE ARTS BUILDING contains a studio, offices and rehearsal rooms for the Music Clubs.

HANSELMAN HALL was constructed during 1954 and bears the name of the late Very Rev. Joseph F. Hanselman, S.J., president of the college from 1898-1906. It contains living accommodations for students and faculty members and has a student lounge on the first floor.

KIMBALL HALL was constructed in 1935 and honors the name of Rev. Charles L. Kimball, S.J., former Classics professor at Holy Cross. It contains the student dining room, a bookstore, postoffice, theatre and the offices of the Dean of Men.

LEHY HALL was constructed during 1954. Dedicated to the late Very Rev. John F. Lehy, S.J., president of Holy Cross during the years 1895-1901. It contains living accommodations for students and faculty members and has a student lounge on the first floor.

O'KANE HALL, built in 1893, stands at the summit of Linden Lane, the main entrance to the college. It honors the late Very Rev. Michael O'Kane, president of Holy Cross from 1889-93. On the main floor is the visitors' reception lounge and on upper floors are administrative and faculty offices.

O'NEIL MEMORIAL HALL was opened in 1951 and is dedicated to the William F. O'Neil family, benefactors of the college. Located on the western side of Beaven Hall, it contains classrooms and facilities of the Biology department.

ST. JOSEPH'S MEMORIAL CHAPEL AND THE MARY CHAPEL are dedicated to the memory of the graduates of Holy Cross. Each of the two chapels contains a seating capacity of 900. The Memorial Chapel was constructed in 1924 and the Mary Chapel, which occupies the lower floor, was opened in 1955.

WHEELER HALL was opened in 1940 and honors the late Rev. John D. Wheeler, S.J., a former college administrator. It contains classrooms on the lower floor and student residences on the upper floors.
General Services

Student Health Service

All resident students at the College of the Holy Cross are entitled to medical service with the following privileges: (1) Consultation with the college physician, daily, if necessary. (2) Visits by the college physician while the student is confined in the college infirmary. (3) Board, room and nursing at the college infirmary. Nursing attendance is rendered by nurses regularly employed by the college. Special outside nurses, if employed, must be paid for by the student.

No student is obliged to patronize the college physician. With the permission of the college Director of Health and at his own expense, a student may consult any physician approved by his parents. When medicines are prescribed the expense is to be borne by the student. The college cannot furnish regular special diets to students who may require such treatment. Expenses incurred for hospital treatment must be defrayed by the individual student.

Accident Insurance

The college has approved a student accident medical reimbursement insurance plan which offers the student maximum benefits at low cost for the calendar year. This supplementary plan may relieve parents of possible financial strain in meeting this type of unanticipated expenses.

Student Employment

Some employment is available at the College of the Holy Cross for students who need to earn part of their college expenses. To merit employment, students must meet certain academic, disciplinary and financial requirements. The compensation is proportionate to the number of hours of employment, and the amount earned is applied on the student's account with the college.

The Library

There are approximately 205,000 volumes in the Dinand Library and they represent to a satisfactory degree every major classification of the Library of Congress, according to which system the Holy Cross collection is catalogued. Hundreds of classified pamphlets, periodicals and manuscripts in various fields increase the students' reference resources. Students are permitted the freedom of the stacks.

In the Reading Room are found the principal reference collections, encyclopedias, dictionaries, bibliographies, yearbooks and concordances.
Occupying the entire lower floor of the east wing is the Browsing Room, designed for comfortable light reading and listening to classical music.

The Periodical Room is above and co-extensive with the Browsing Room. Over three hundred and fifty periodicals, from daily newspapers to annuals, both foreign and domestic, and in several languages, are received on subscription.

The west wing of the main floor houses the Museum, where are exhibited many of the choice, valuable and historic treasures of the college. Valuable paintings, sculptures, coins, books and pamphlets whose antiquity, rarity of edition give them a peculiar value, documents associated with the growth of the college, the history of the Church and the development of the country, autographs and manuscripts are some of the categories represented in the Museum exhibit. Of special interest is the growing collection of Jesuitana, which embraces the works of many early writers of the Society of Jesus.

Natural Science and Mathematics libraries are housed in the Reverend Joseph T. O'Callahan, S.J. Library of Haberlin Hall.

(Cf. Appendix for names of donors to libraries.)

Counseling Services

The offices of the Deans, the Registrar, the Director of Student Aid, the Director of Health, the Director of Placement, the Student Counselors, Faculty Prefects of Dormitories and Counseling Center are available to the student for guidance and assistance.

The chairmen of the academic departments are the academic advisors for upperclassmen. Each freshman has a faculty advisor to assist him in academic matters.

Special faculty advisors are appointed to guide the student in preparing for professional careers and in applying for graduate fellowships.

Student Counselors are ready at all times to assist the student in the multitude of problems that assert themselves during college years. Corridor Prefects live in the dormitories with the students and are available for counseling.

Counseling Center

In 1961, the college established a Counseling Center, which offers the following programs:

FRESHMEN TESTING PROGRAM. All entering freshmen are required to participate in a testing program, the purpose of which is to determine each student's academic potential and to assess his proficiency in the learning skills which are considered important for success in studies.

ORIENTATION PROGRAM FOR FRESHMEN. During the first week of school, each freshman section is assigned a member of the faculty who will serve as advisor to the students in that section. During the first semester, each section meets once a week with its advisor. The purpose of the weekly meetings is to acquaint the new students with the numerous programs and opportunities available on campus and to provide the opportunity for the
discussion of common problems. In addition, the faculty advisor is available to the individual student to answer questions concerning courses of study, educational and vocational goals, and the like, and to help the student with any problems which may arise.

READING IMPROVEMENT AND STUDY SKILLS PROGRAM. Since the College realizes that even students of high intellectual promise may not do well in their studies because of poor reading or study skills, the Counseling Center offers during each semester special courses in these areas. Through instruction and intensive practice in these courses, the student acquires effective study skills and the ability to read rapidly with a high degree of comprehension.

EDUCATIONAL AND VOCATIONAL GUIDANCE. Staff members are available to help students to choose worthwhile and appropriate educational and vocational goals. The Counseling Center also maintains an extensive library of literature describing the educational opportunities and the vocational areas available to college graduates.

PERSONAL COUNSELING. Professionally qualified counselors are available to help students who may be having difficulty with their studies because of personal or emotional problems.

The Counseling Center is located in Alumni 61. Students interested in the services provided may make appointments Monday through Friday, 9 A.M. to 5 P.M.

Faculty Advisors to Freshmen


Special Faculty Advisors, 1962-63

African Students ................................ Rev. Richard P. Burke, S.J., Ph.D.
Armed Services .................................. Rev. Charles J. Dunn, S.J.
Business Opportunities .......................... Edward Peragallo, Ph.D.
Danforth Fellowships .............................. Edward J. Kealey, Ph.D.
Foreign Students and Foreign Study ............. Rev. Alfred R. Desautels, S.J., Ph.D.
Fulbright Fellowships ............................ Rev. Thomas J. Grace, S.J., Ph.D.
Graduate Schools of Business .................... Edward Peragallo, Ph.D.
Graduate Studies ................................ John H. Dorenkamp, Ph.D.
Holy Cross College Prizes and Scholarships .... Rev. Maurice F. Reidy, S.J., Ph.D.
Law Schools and Law School Scholarships ...... Rev. George A. Higgins, S.J., Ph.D.
Marshall Scholars ................................ Rev. Maurice F. Reidy, S.J., Ph.D.
M.A.T. Cooperative Scholarship, Harvard University “29 Plan” ................................. John H. Dorenkamp, Ph.D.
Medicine ........................................ Rev. Joseph F. Busam, S.J.
National Science Foundation Programs .......... Rev. Robert B. MacDonnell, S.J.
Public Services—Politics ........................ Rev. Walter M. Shea, S.J.
Rhodes Scholarships .................... Rev. Maurice F. Reidy, S.J., Ph.D.
State Department .......................... John H. Dorenkamp, Ph.D.
Teaching .................................. Joseph H. Maguire

Alumni Placement Bureau

The Alumni Placement Bureau was established as a service to all Holy Cross graduates. Undergraduates of all classes are also urged to utilize the facilities of the Bureau.

A series of career guidance talks is held during the year in which alumni and other business and professional leaders speak informally of career opportunities.

Campus conferences with personnel officers of businesses and industrial firms, representatives of secondary schools and federal agencies are arranged by the Bureau.

Cultural Events

Each year the educational program of the college is enriched by fall and spring programs of lectures, theatrical productions, concerts, classic films series. Eminent artists, distinguished men of letters and science, political and social scientists are invited to the campus for formal and informal presentations.

The Cross and Scroll Society presented in 1962-63: the late Robert Frost, poet; John Ciardi, poet; Dr. William F. Albright, Biblical scholar; Lawrence E. Spivak, "Meet the Press"; Rev. Martin Luther King; Dr. Wernher von Braun; Dr. Nicholas Goncharoff, Soviet Affairs expert; William H. Auden, poet; R. S. Garfield Todd, former Prime Minister of Southern Rhodesia; Hans Küng, theologian; Harrison Salisbury, N.Y. Times editor.

Dormitory Accommodations

Under normal conditions the residence halls of Holy Cross have accommodations for fifteen hundred students. Each living room in the student dormitories is provided with the essential articles of furniture, such as desks, chairs, lockers, beds, mattresses, pillows. Students contract privately with a linen service company recommended by the college which will supply and launder two sheets, one pillow case, two bath towels and two hand towels each week of the school year. Room assignments are made by the office of the Dean of Men.

Graduate Studies Advisor

The office of the Graduate Studies advisor has been established to aid students seeking a continuation of their education in graduate and professional schools.

Language Laboratory

A Language Laboratory on the ground floor of Carlin Hall has forty booths equipped with modern electronic instruments: tape recorder, microphone, headset, and a channel
selector to receive any one of the five different programs transmitted from the console. The work performed in the Laboratory is coordinated with classroom activity and is of invaluable assistance for the oral-aural approach to language.

**Reserve Officers' Training Corps Program**

The College offers as part of its regular curriculum the ROTC programs of the Air Force and the Navy. The programs of both services consist of one course each semester for four years (acceptable for credit towards a degree), one drill period per week, and at least one summer training camp or cruise.

The Air Force program leads to a commission in the Air Force Reserve and prepares for specific duties in the Regular Air Force, the Air Force Reserve and the Air National Guard Units. The Naval ROTC program prepares qualified officers for the Navy and Marine Corps, the Naval Reserve and the Marine Corps Reserve.
College Expenses

General

Tuition

$1,200 for each year of academic instruction. This tuition fee includes all ordinary charges except special fees.

Board and Room

$1,100 per academic year. This includes infirmary accommodation when required. Some room accommodations will cost $100 less per academic year. These expenses do not include textbooks or incidental expenses.

Payment of Bills

Bills for one half of each of these fees will be issued not later than two weeks prior to the opening of each semester as follows:

Boarding Student: $1,150  Day Student: $600

This semester bill is payable in advance, but in no case later than the day of registration. Bills for other fees are payable when rendered. For those parents or guardians who prefer monthly payments toward the cost of tuition and the charges for board and room, arrangements may be made with The Tuition Plan, Incorporated, One Park Avenue, New York 18, New York. Make all checks and money orders payable to the Treasurer, College of the Holy Cross. The trustees of the college reserve the right to change tuition rates and to make additional charges within the college whenever they believe it to be necessary.

Withdrawal

During the first six weeks of each semester, there will be a proportional refund of tuition; after six weeks, there will be no refund. Throughout the semester, there will be a proportional refund of board and room charges.
Special

Application Fee:

A fee of $10 (non-refundable) must accompany all applications for admission to the College.

Acceptance Deposit:

Regular candidates, upon receiving final notice of their acceptance, are obliged to forward a non-refundable reservation deposit of $100. For students accepted under the Early Decision Plan and for all Early Scholarship Awardees the required deposit fee will be $200. This fee will be required within two weeks of the date of the candidate's notification of acceptance and/or Early Scholarship Award and will not, under any circumstances, be refunded. The amount deposited will be deducted from the First Semester bill.

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<td>Graduation Fee</td>
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<td>Late Registration Fee</td>
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<td>Reading Clinic Fee</td>
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<td>Withdrawal from Course</td>
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Breakage Deposit:

There is no breakage deposit required for the Chemistry courses, but the amount of any breakage above the class average is billable to the responsible student.

Property Damage:

Any charges for property damage will be billed directly to the student. The minimum billing for such damage will be $5.
Scholarships and Loans

General Information

A limited number of scholarships are awarded annually to incoming and enrolled students from the income on founded scholarships. This income is supplemented by grants from college funds. A few scholarships, restricted by the donors to definite categories of applicants, offer awards to the amount of full tuition and partial or total expenses for board and room at the college. All other scholarships grant full or partial tuition. For information concerning the joint Holy Cross College-Government Loan Program, cf. p. 49.

Applicants for admission who are also scholarship candidates must complete, and have mailed to the College by February 15, the Parents' Confidential Statement of the College Scholarship Service. This form, which is the College's required scholarship application, may be obtained at the candidate's high school or by writing directly to College Scholarship Service, P.O. Box 176, Princeton, N.J. The candidate must request the Service to mail a copy of the statement to Holy Cross before the February 15 date. All scholarships, ordinarily awarded in May, are granted on a provisional four-year basis. To warrant renewal, recipients will be required to achieve "B" grades in each subject of their college course and to maintain a satisfactory disciplinary record. Scholarships are awarded on the basis of academic excellence and demonstrated financial need. High scholastic achievement, promise of leadership, participation in significant extracurricular activities, character and personality constitute the factors on which scholarship awards are made. Candidates are required to take no examinations beyond the College Board Tests.

For scholarship renewal and new applications, upperclassmen must file with the Treasurer a completed application form not later than April 1. Transfer students are not eligible for scholarship assistance until they have competed one year of study at Holy Cross College.

GENERAL SCHOLARSHIPS

These are open to all incoming and enrolled students. The amount of the award is the income on the gift of the donor.

RESTRICTED SCHOLARSHIPS

These by the intention of the donor are restricted to definite categories of applicants who often must be from a definite locality, parish or high school. An applicant, who wishes to apply for a restricted scholarship, should make certain that he is eligible for this scholarship.

COMPETITIVE SCHOLARSHIPS

Some scholarships by the intention of the donor are awarded on the basis of a competitive examination. The competitive examinations required by the College for eligible scholarship candidates are the College Board Examinations. Only incoming freshmen are eligible for competitive scholarships.
HOLY CROSS SCHOLARSHIPS

General

There are a limited number of tuition or other partial awards that are made from the college funds.

Presidential Scholarships

These scholarships were instituted in 1961 in recognition of those Jesuit Education Association High Schools which regularly send to Holy Cross College excellently prepared students. A full, four-year tuition scholarship will be awarded annually to one senior from each of these Jesuit High Schools. The winner will be named by the college from three finalists designated by the administrators of each high school as outstanding for academic achievement, character, personality, and leadership. The high schools announce this competition annually.

List of Scholarships

THE GOVERNOR AMES SCHOLARSHIP

Established in 1887 by Governor Oliver Ames. (Income on $1,000.00)

THE EUGENE A. BICKFORD SCHOLARSHIP

Founded in October, 1932, from the estate of Mrs. Mary A. Magenis of Brookline, Mass., in memory of her brother, the late Eugene A. Bickford, '96. The annual income to provide for the education of a deserving student under such conditions and regulations as imposed by the Faculty of the College. (Income on $5,000.00)

THE REV. CHARLES E. BURKE SCHOLARSHIP

Established in 1895. Appointment to be made from residents of St. Francis Parish, North Adams, Mass. (Income on $3,000.00)

THE JAMES M. BURKE SCHOLARSHIP

Established April 1, 1950 from the Estate of William H. Burke. The beneficiary is to be selected by the Trustees of the College. (Income on $11,662.69)

THE ROBERT J. CAIRNS MEMORIAL FUND

Established September 24, 1953 by bequest from the estate of Alfred F. Finneran, for scholarship aid to worthy students. (Income on $5,000.00)

THE THOMAS CALLAGHAN SCHOLARSHIP

Founded in 1914 by the late Thomas Callaghan of Leicester, Mass., limited to residents of Worcester County, “preference to be given to those preparing for the priesthood.” (Income on $2,000.00)

THE HONORABLE JAMES BERNARD CARROLL SCHOLARSHIP

Founded in 1939 by Mrs. James Bernard Carroll as a memorial of her husband, the late Justice James Bernard Carroll of the class of 1878. Restricted to graduates of
St. Michael's Cathedral High School, Springfield, Massachusetts. Selection to be made by the Very Reverend Rector of Holy Cross College and the Reverend Rector of St. Michael's Cathedral, Springfield, on candidate's character, scholarship and extracurricular achievements.

THE FRANK D. COMERFORD MEMORIAL FUND
Established by Archibald R. Graustein in 1959. (Income on $13,500.00)

THE CONNECTICUT VALLEY ALUMNI SCHOLARSHIP
Established in 1912 by the Alumni of Connecticut Valley. (Income on $1,725.00)

THE MAURICE CONNOR MEMORIAL SCHOLARSHIP
Established in 1929 by Mr. John T. Connor in memory of his brother, Maurice. The intention of the donor is to provide, for one boy, board, room, tuition and fee charges, as far as the income will provide them. The single beneficiary is to be chosen by the Pastor of St. Mary's Church, Westfield, Mass. (Income on $16,000)

THE MONSIGNOR GEORGE S. L. CONNOR SCHOLARSHIP
Established October 18, 1955 by gift of the late Msgr. George S. L. Connor, '07. Selection to be made by the president of the college who shall give first preference to a worthy applicant who is a member of Holy Name Parish in Springfield, Massachusetts. If no such eligible candidate applies, then such a candidate who graduates from Cathedral High School shall be considered; if none such, then any applicant from the Springfield high schools. Candidates must pass scholarship test as set up and be of good personality with evidence of leadership qualities.

THE THOMAS COSTELLO AND ANN COSTELLO SCHOLARSHIP
Established December 9, 1947, by bequest of Susan A. Costello in memory of her parents, and by a bequest from the estate of Fanny Goodwin Hobbs. Income to be used to aid a student who lacks sufficient financial means for his education and who has expressed the intention of entering the priesthood. (Income on $10,000)

THE CROWLEY FAMILY MEMORIAL SCHOLARSHIP I.
Established July 2, 1947, by bequest of Miss Bridget T. Crowley of Springfield, Mass. Beneficiary to be selected by competitive examination and is open to students of the parochial and public high schools of Springfield, Mass., who are morally, mentally and physically worthy and competent and who show promise of ability, but who have such limited financial means that, if not aided by a scholarship, would be unable to attend college. (Income on $13,033.00)

THE CROWLEY FAMILY MEMORIAL SCHOLARSHIP II.
Established 1947 by bequest of Miss Bridget T. Crowley of Springfield, Mass. Conditions same as the Crowley Family Memorial Scholarship I. (Income on $14,144.49)

THE CROWLEY FAMILY MEMORIAL SCHOLARSHIP III.
Established 1947 by bequest of Miss Bridget T. Crowley of Springfield, Mass. Conditions same as the Crowley Family Memorial Scholarship I. (Income on $13,365.49)
THE RIGHT REV. MONSIGNOR DANIEL F. CURTIN SCHOLARSHIP
Established in 1921 by the Rt. Rev. Monsignor Daniel F. Curtin, Glens Falls, N.Y., to be appointed by the pastor of St. Mary’s Church, Glens Falls, N. Y. (Income on $10,000.00)

DR. AND MRS. CARL J. DE PRIZIO SCHOLARSHIP
Established October 30, 1959 by gift of 300 shares of Boston Fund, Inc. Income to be used for award to deserving student in the sciences.

THE DANIEL T. DEVINE SCHOLARSHIP
Established in October 1945 from the estate of Mary F. Devine in memory of her brother, Rev. Daniel T. Devine. To be awarded as a result of competitive examination to the member of the graduating class of St. Mary’s Parochial School, Milford, Mass., who has attended said high school for four years and who has been a member of St. Mary’s Parish throughout his high school course. (Income on $15,000.00)

THE JAMES F. DONNELLY, ’99 SCHOLARSHIP
Established May 11, 1956 by gift from the Sylvan Oestreicher Foundation. (Income on $15,000.00)

THE EASTERN CONNECTICUT HOLY CROSS CLUB SCHOLARSHIP
Established February 2, 1955 for a deserving student from that area.

THE EASTMAN KODAK COMPANY SCHOLARSHIP
Established September 16, 1960. (Income on $7,200.00)

THE THEODORE T. AND MARY G. ELLIS SCHOLARSHIP FUND
Founded in 1941 by the estate and through the generosity of the late Theodore T. and Mary G. Ellis. From the income of this fund, several scholarship awards of full or partial tuition are annually granted to residents of the City of Worcester. (Income on $283,834.49)

THE REV. PATRICK J. FINNEGAN, P. R. SCHOLARSHIP
Established November 28, 1955 by bequest from the estate of Rev. Patrick J. Finnegan. Income to be used to assist needy boys from Portsmouth, N. H. (Income on $5,032.60)

GENERAL MOTORS COLLEGE PLAN SCHOLARSHIP
A four year scholarship offered annually by General Motors Corporation. The amount of the award varies with the financial need of the recipient as determined by the General Motors Scholarship Committee.

THE "IN MEMORY OF DAVID GOGGIN" SCHOLARSHIP
Founded in 1925 by Mrs. Catherine M. Goggin, in memory of David Goggin. Preference to be given a relative. (Income on $1,000.00)
THE THOMAS F. GROGAN SCHOLARSHIP
A memorial of the deceased father of Dr. Richard H. Grogan, ’35, and his brother, Fr. Thomas Grogan, S.J.

THE MONSIGNOR GRIFFIN SCHOLARSHIP
Established in 1895, limited to residents of St. John's Parish, Worcester, Mass. (Income on $1,000.00)

THE MARY AGNES HABERLIN FOUNDATION
For worthy students chosen by the president or faculty of the college. (Income on $249,111.14)

THE JOHN H. HALLORAN SCHOLARSHIP I.
Established in 1909 by Mr. John H. Halloran of New York, as a memorial of his brother, the late William J. Halloran, of Worcester, competition open to the country. (Income on $12,000.00)

THE JOHN H. HALLORAN SCHOLARSHIP II.
Established in 1921 by Mr. John H. Halloran of New York, as a memorial of his brother, the late William J. Halloran, of Worcester. Selection to be made from the students of the public and parochial schools of Northampton, Mass., by means of competitive examinations. (Income on $12,000.00)

THE REV. JEREMIAH J. HEALY SCHOLARSHIP I.
Founded in 1912 by the Rev. Jeremiah J. Healy, of Gloucester, Mass., for a candidate for the priesthood worthy of financial aid. (Income on $1,500.00)

THE REV. JEREMIAH J. HEALY SCHOLARSHIP II.
Same as the “Rev. Jeremiah J. Healy Scholarship I.” (Income on $1,500.00)

THE RICHARD HEALY SCHOLARSHIP
Established in 1908 by Mr. Richard Healy of Worcester, open to competition for residents of Worcester County regardless of creed. (Income on $8,000.00)

THE MR. AND MRS. RICHARD HEALY SCHOLARSHIP
Established in 1916 by Mr. and Mrs. Richard Healy of Worcester, for benefit of a direct relative of donors. (Income on $12,000.00)

THE REV. FREDERICK W. HEANEY, S.J. SCHOLARSHIP
Established in 1920 by Miss Lillian Heaney, in memory of her deceased brother, the Rev. Frederick W. Heaney, S.J. (Income on $2,500.00)

THE JOHN W. HODGE SCHOLARSHIP
Established in 1946 by a bequest from the late John W. Hodge to aid some worthy Catholic boy from Cambridge, Mass., the terms and conditions of which are to be fixed and regulated by the college. (Income on $4,466.20)
THE JOHN T. HOLLAND '17, MEMORIAL SCHOLARSHIP

Founded January 2, 1954 by gift from Matthew M. Berman. To be used for worthy students selected by the president of the college. (Income on $8,500.00)

THE HOLY CROSS COLLEGE SCHOLARSHIPS

These are a limited number of tuition or other partial awards that are made from the college funds, at the times and to the amounts that the financial position of the college permits.

KATHERINE H. HOY SCHOLARSHIP

Established December 14, 1959 by bequest of $5,000.00 from the Estate of James M. Hoy, '05. Income to be used to assist a student with preference given to a needy and deserving boy of St. Stephen's Catholic Parish of Worcester.

THE JOHN COLLINS HURLEY SCHOLARSHIP

Established April 28, 1953 by bequest from the estate of Margaret M. Hurley. Income to be used for education of worthy graduate of Durfee High School, Fall River, Mass. (Income on $5,026.67)

THE WARREN JOSEPH HURLEY SCHOLARSHIP

Established in 1929 by Mrs. Jeremiah J. Hurley in memory of Warren Joseph Hurley, '29, for the benefit of one or more worthy students aspiring to the priesthood. Selection to be made by the President of the College. (Income on $5,000.00)

THE "IN MEMORIAM" SCHOLARSHIP

Established in 1915 by an alumnus of the college for a deserving student. (Income on $8,000.00)

THE OTTO SEINDENBURG KING SCHOLARSHIP

Established in October, 1954 by gifts from Atty. John King, '25. Income to be used for a deserving student. (Income on $10,000.00)

THE REV. MICHAEL H. KITTREDGE SCHOLARSHIP

Founded in 1917 by Rev. Michael H. Kittredge, '75. (Income on $5,000.00)

THE MASSACHUSETTS STATE COUNCIL OF KNIGHTS OF COLUMBUS SCHOLARSHIP FUND

Founded in 1937 by the Massachusetts State Council Knights of Columbus; open to members and sons of members of the Knights of Columbus residing and having their membership in the Order in Massachusetts. Award to be made by competitive scholastic examinations under the administration of the College of the Holy Cross.

THE PATRICK W. LALLY MEMORIAL SCHOLARSHIP

Established in March 1954 from the estate of James Lally to be awarded to a worthy graduate of St. Mary's High School, Milford, Mass., who will be selected by the President of the College of the Holy Cross. (Income on $5,221.60)
THE MICHAEL J. LAWLOR SCHOLARSHIP
Established in February, 1949, by bequest from the late Retta M. Lawlor. Income to be used to aid a bright and needy student, resident of Waterbury, Conn., who in the opinion of college authorities, shall be deserving of financial assistance. (Income on $5,000.00)

WILLIAM E. LEAHY, '07 MEMORIAL SCHOLARSHIP FUND
Established May 8, 1959 by The Holy Cross Alumni Club, Washington, D.C.

W. H. LEE MILK COMPANY ENDOWMENT FUND
Established September 4, 1959 with gift of 25 shares of Eastman Kodak with the provision that the income from these shares be added to the principal until September 1, 1973. After September 1, 1973 the income is to be used for scholarship aid in accordance with specifications as set down in the agreements.

THE JOHN J. LEONARD SCHOLARSHIP OF THE M.C.O.F.
Founded in 1926 and restricted to members, or sons of members, of the M.C.O.F., selection to be made by competitive examinations. (Income on $6,000.00)

THE REV. JOHN G. MAHONEY, S.J., A FORMER PROFESSOR AT THE COLLEGE, AND JAMES E. MAHONEY, '10, MEMORIAL SCHOLARSHIP
Founded in 1946 by Mrs. Edward C. Donnelly in memory of her brothers; to be awarded to a deserving student studying for the degree of Bachelor of Arts in the Classical course who is to be selected by the president of this college. (Income on $20,000.00)

THE HENRY VINCENT McCABE SCHOLARSHIP
Established in 1916 by the late Mary McCabe of Providence, R. I., for a deserving student. (Income on $5,000.00)

THE REV. DENIS F. McCAFFREY SCHOLARSHIP
Established September 29, 1953 by bequest from the estate of Rose A. McCaffrey. (Income on $700.00)

THE PETER McCORD SCHOLARSHIP
Established by Mary Lambert McCord for a deserving student.

THE REV. DAVID F. McGRATH SCHOLARSHIP I.
Established in 1907 by the Rev. David F. McGrath, '70, beneficiary to be selected by competitive examinations. Restricted to graduates of St. Mary's Parish School, Milford, Mass., if there be more than one eligible candidate. If but one such, graduates of Milford Public High School may be admitted to competition; if but one candidate from both schools, anyone otherwise eligible in the State to be admitted to competition. The beneficiary will receive board, lodging and tuition for an academic year of two semesters. All other expenses must be met by the one holding the scholarship. (Income on $6,000.00)
THE REV. DAVID F. McGRATH SCHOLARSHIP II.
Established in 1920 by the Rev. David F. McGrath, '70; conditions same as the “Rev. David F. McGrath Scholarship I.” (Income on $6,000.00)

THE REV. DAVID F. McGRATH SCHOLARSHIP III.
Established in 1920 by the Rev. David F. McGrath, '70; conditions same as the “Rev. David F. McGrath Scholarship I.” (Income on $8,000.00)

THE MONSIGNOR JOHN W. McMAHON SCHOLARSHIP
Founded in 1938 under provision of the will of Rt. Rev. Msgr. John W. McMahon, '67, to give scholarship aid to a Holy Cross student to be designated by the Reverend Pastor of St. Mary's parish, Charlestown, Boston, Massachusetts, preference being given to students coming from St. Mary's parish. (Income on $5,000.00)

THE PATRICK J. MURPHY SCHOLARSHIP
Established in 1914 by Mrs. Ellen M. Murphy, as a memorial to her husband, the late Patrick J. Murphy, Worcester, Mass. (Income on $1,500.00)

THE MONSIGNOR RICHARD NEAGLE SCHOLARSHIP
Founded in 1943 by His Excellency the Honorable Alvan T. Fuller, former Governor of the Commonwealth of Massachusetts, in memory of the late Right Reverend Monsignor Richard Neagle of the Class of 1873, to assist boys qualified, in the opinion of the faculty, but who otherwise could not afford such an expenditure as would be necessary to enjoy the educational and religious advantages of the College of the Holy Cross. (Income on $35,000.00)

THE DENIS F. AND LORETTO RADEL O'CONNOR SCHOLARSHIP
Established May 26, 1955 by Dr. Denis F. O'Connor, '93, to be used for a worthy student to be selected by college authorities. (Income on $30,000)

THE O'DRISCOLL SCHOLARSHIP
Established in 1874, for a student (limited to residents of the City of Worcester), who is a candidate for the priesthood and is selected by the Bishop of Worcester or his delegate. (Income on $3,000.00)

THE MAY AND SYLVAN OESTREICHER SCHOLARSHIP
Established Dec. 30, 1957 by gift of Sylvan Oestreicher. (Income on $33,075.88)

THE MARY C. O'NEIL FUND FOR BRISTOL COUNTY STUDENTS
Established January 7, 1955 by gifts from Margaret T. O'Neil, to be used to aid a student from Bristol County. (Income on $2,900.00)

THE REV. DANIEL H. O'NEILL SCHOLARSHIP I.
Established 1895, limited to residents of St. Peter's Parish, Worcester, Mass. (Income on $1,000.00)
THE REV. DANIEL H. O'NEILL SCHOLARSHIP II.

Established in 1908, limited to the residents of the City of Worcester. (Income on $1,500.00)

PENHALL-O'ROURKE SCHOLARSHIP

Established September 9, 1958 by bequest of $1,000.00 from the estate of Dr. James J. O'Rourke, '09 to be used for scholarship purposes in aiding a deserving student.

THE REV. DR. PATRICK B. PHELAN SCHOLARSHIP I.

Established in 1917 by Rev. Dr. Patrick B. Phelan, '69; open to competition for graduates of the Sacred Heart School, Holyoke, Mass. (Income on $8,000.00)

THE REV. DR. PATRICK B. PHELAN SCHOLARSHIP II.

Same as "Rev. Dr. Patrick B. Phelan Scholarship I." (Income on $8,000)

THE DAVID H. POSNER AND MARY MURPHY POSNER FOUNDATION

Founded July 1, 1957 by bequest from the estate of Mary M. Posner. Income to be used toward tuition of worthy students. (Income on $14,922.68)

THE REV. JOHN J. POWER SCHOLARSHIP

Established in 1907 by the late Rev. John J. Power, D.D., limited to residents of St. Paul's Parish, Worcester, Mass. (Income on $1,500.00)

THE MARY A. PRENDERGAST SCHOLARSHIP

Founded in 1945 under the will of the late Mary A. Prendergast for deserving orphan students. (Income on $4,948.40)

THE "QUID RETRIBUAM" SCHOLARSHIP

Established in 1907 by a friend of education in gratitude for divine favors; if not filled by founder, competitive examinations will be held. (Income on $8,000.00)

THE PATRICK W. RAFFERTY SCHOLARSHIP

Established in 1920 and open to competition among deserving students of the City of Worcester. (Income on $2,000.00)

IN MEMORY OF DENNIS M. AND JOSEPHINE F. REARDON SCHOLARSHIP

Established January 11, 1952 by bequest from the estate of Josephine F. Reardon. Income to be used to aid a worthy student preparing for the holy priesthood. (Income on $10,575.39)

THE JOHN REID SCHOLARSHIP

Established in 1894, limited to residents of Worcester. (Income on $1,500.00)

THE CATHERINE F. REILLY SCHOLARSHIP

Established June 1, 1955 by bequest from the estate of Joseph J. Reilly, '04, in memory of his mother. Income to be used for a worthy student to be selected by College authorities. (Income on $12,500.00)
THE JAMES H. REILLY SCHOLARSHIP
Established June 1, 1955 from the estate of Joseph J. Reilly, '04, in memory of his father. Income to be used for a worthy student to be selected by college authorities. (Income on $12,500.00)

THE REILLY MEMORIAL SCHOLARSHIP
Founded in 1922 by the late Joseph J. Reilly, '04. (Income on $1,000.00)

THE MARY J. ROBINSON SCHOLARSHIP
Established in 1943 by the late Mary J. Robinson in memory of her mother and father and brothers to assist deserving young men of the Roman Catholic faith in obtaining a collegiate education at the College of the Holy Cross. (Income on $11,297.86)

THE ROCHESTER ALUMNI SCHOLARSHIP
For a deserving student from Rochester, N.Y.

THE REV. WILLIAM H. ROGERS SCHOLARSHIP
Established in 1918 by Rev. William H. Rogers, '68. (Income on $10,000.00)

THE HON. JOHN E. RUSSELL SCHOLARSHIP
Established in 1907 by a Friend of the College. (Income on $1,500.00)

TIMOTHY A. SHEA SCHOLARSHIP FUND
Established by bequests totaling $101,918.16 from the estate of Timothy A. Shea in memory of his parents, Mr. and Mrs. Daniel M. Shea; a brother, Michael F. Shea; and sisters, Katherine and Elizabeth. Income to be used exclusively for non-resident students residing in the City of Worcester and awarded on a competitive basis.

THE ELIZABETH SPANG SCHOLARSHIP
Founded in 1936 by the will of Elizabeth Spang of West Haven, Connecticut. This income to be used toward the education of a “student of Holy Cross College whom the governing body of said College may deem to be in need of financial assistance for his college work and worthy of said scholarship.” (Income on $5,000.00)

THE SPRINGFIELD CLUB SCHOLARSHIP
Established by the Holy Cross College Alumni Club of Springfield, Massachusetts. The recipient of the award will be selected by Board of Admissions at the College. It is subject to renewal under usual conditions. Preference will be given candidates from the City of Springfield or the Springfield area.

IN MEMORY OF HELEN M. AND JOHN F. TINSLEY SCHOLARSHIP
Established November 20, 1953 by bequest from the estate of John F. Tinsley. Income to be used to assist worthy students selected by the president of the college. (Income on $55,000.00)
THE SCHOLLER FOUNDATION SCHOLARSHIP
   Established October 24, 1955. (Income on $1,000.00)

THE REV. DAVID W. TWOMEY, S.J. SCHOLARSHIP
   Established October 10, 1955 by gifts from family and friends of Fr. Twomey, S.J.
   Income to be used to aid a worthy student. (Income on $19,100.00)

UNION CARBIDE SCHOLARSHIPS
   Offered by the Union Carbide Educational Fund of the Union Carbide and Carbon
   Corporation, these scholarships offer deserving students who are interested in a busi-
   ness career the complete cost of tuition for a full, four-year academic course. In addi-
   tion, they provide reasonable allowances for the necessary books and required fees.
   This program is in process of termination. No new candidates will be accepted.

THE REV. ROBERT WALSH SCHOLARSHIP
   Established in 1895, limited to residents of the Immaculate Conception Parish.
   Worcester, Mass. (Income on $1,000.00)

THE STEPHEN W. WILBY SCHOLARSHIP
   Founded by the Naugatuck Valley Alumni Association and friends in Connecticut.
   (Income on $7,514.01)

WORCESTER FEDERAL SAVINGS AND LOAN ASSOCIATION EDUCATIONAL FUND
   Established April 1, 1960 by gift of $2,500.00.

National Defense Student Loans
   Loans will be available from the College of the Holy Cross to qualified students under
   the National Defense Education Act of 1958 in varying amounts determined by the
   applicant's need and by funds available to the college at the time of the application.
   Minors will be required to have co-signers. Under the law, student borrowers must be
   United States nationals. Special consideration will be given to the applications of stu-
   dents with a superior academic background who express a desire to teach in elementary
   and secondary schools, or who show a superior capacity or preparation in science,
   mathematics, or a modern foreign language. Eligible students in other fields will be
   given full consideration. An applicant must be a full-time student in good standing, and
   must be in financial need of the loan to complete his course of study. The loan bears
   interest at the rate of 3% per annum commencing one year from the date the borrower
   ceases to be a full-time student in an institution of higher education. Complete informa-
   tion and application forms may be obtained from the Treasurer's Office.
Admission to the College

General

Candidates for admission to the College of the Holy Cross must meet certain standards of quantitative and qualitative excellence and give evidence of motivation, maturity and emotional stability.

The Committee on Admissions will evaluate the applicant's qualifications in terms of the traditions and standards of the college. Possession of the required scholastic credentials is not to be construed as a guarantee of acceptance. More pertinent is the unspoken promise of the applicant that he will achieve the fullness of dignity of Christian manhood in the arts, the sciences, a profession or in business.

Application

All correspondence relative to the procedure on application and all inquiries on matters of interest to prospective candidates should be addressed to The Dean of Admissions.

Completed application forms must be filed in the Office of Admissions prior to the first day of April. A certified statement of good health from a physician must be submitted prior to the first day of August.

Entrance Examinations

All applicants must take the College Entrance Board Scholastic Aptitude Test in December or January, of their last year in secondary school, as well as the College Board Achievement Tests in December, January, or March. The three achievement tests must include the test in English composition, one in a modern foreign language which has been studied two years in secondary school, and a third to be freely chosen by the student. The College Board “Writing Sample” is also required.

The General Educational Development Test and the Navy College Aptitude Test are not accepted for entrance into college in place of the College Entrance Board Tests.

Quantitative Admission Requirements

Students approved for admission to the freshman class are selected from applicants who are graduates of approved secondary schools and who offer sufficient credits to satisfy the minimum admission requirements of fifteen entrance units in approved subjects.

All units submitted to satisfy entrance requirements must be recognized by the secondary school as credits towards graduation in a college preparatory course. Commercial, vocational or industrial subjects will not be accepted as entrance units. Candidates for admission may submit entrance units in the following subjects: Modern Language, 2 units; English, 4 units; Mathematics, 3-4 units; History, 1 unit; Science, 1 unit.

Applicants for the Bachelor of Arts degree must offer in addition at least 3 units in Latin. Other units may be made up from additional units in the above subjects or in other high school subjects, excluding commercial or manual training courses.
Unit Requirements for the Various Programs

A specified number of units in required subjects must be offered. Elective subjects, sufficient to bring the total to 15 units, will be accepted but these additional units must be included in the list of approved subjects. The following table summarizes the required and elective units to be offered by candidates for the various degrees:

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*No credit will be allowed for a single year of a foreign language. Candidates who present no secondary school credit in a modern foreign language must register in one or other of the elementary courses offered in modern foreign languages and continue their study of the language chosen throughout sophomore year. A comprehensive examination will be given at the completion of the sophomore year language course.

Basis for Admission

The decision of the Board of Admissions will be based on the following factors: (1) graduation and academic performance in secondary school; (2) the recommendation of the principal, headmaster, or student counselor; (3) the results of the pre-college tests (Cf. p. 50); (4) the health, moral character, extra-curricular interests and achievements of the candidate.

Early Decision Program

Holy Cross offers an “Early Decision Program” which allows a superior student, who has taken all required College Board Examinations and the “Writing Sample” in junior year, to submit an application prior to October 1 of his senior year. In accordance with the policies of this program, common to those colleges which offer Early Decision Programs in order to obviate the need of multiple applications, candidates requesting an early decision must file with their application a statement certifying that they have applied to no other college, and will not, until they have received from Holy Cross a decision of admission, rejection, or, in doubtful cases, postponement of a final decision until the month of May. Postponement will in no way prejudice a decision in May. The college will require the candidate to repeat during senior year all the required College Board Examinations and the “Writing Sample.”
Advanced Placement

In 1952, the College Entrance Examination Board instituted the Advanced Placement Program in order to allow the superior student to advance more rapidly and more richly in his chosen field. Holy Cross College policy presupposes that the candidate has pursued, during his senior year in high school, a strictly Freshman-college-level course in the subject in which he seeks advanced placement, and has attained, in the Advanced Placement Test of the College Board program, a test-score of 3, 4, or 5. Each candidate's record is studied individually, and the decision regarding advanced placement is made on the merit of each individual's record of achievement.

Early Admission Plan

Through its program of "Early Admission," by which outstanding candidates enter college one year early, the college welcomes the applications of superior high school juniors, who, in the judgment of principals, counselors, and teachers, have attained a high degree of personal maturity and social adjustment. Candidates for "Early Admission" must submit an application, completed with their three year high school record, prior to August 1. The required College Board Examinations (Cf. p. 50) must have been taken during the Junior year of high school.

Foreign Students

Students from foreign countries are encouraged to seek admission to the college. If applicants need financial aid, they should communicate with U. S. Education Commission of the Institute of International Education prior to making application to Holy Cross. The college is a member of the African Scholarship Program of American Universities.

Acceptance Deposit

Regular candidates, upon receiving final notification of their acceptance, are obliged to forward a non-refundable reservation deposit of $100. Early decision, early admission, and scholarship candidates must forward a non-refundable reservation deposit of $200.

Registration

Freshmen will receive all information relative to registration upon application to the Office of the Dean of Admissions.

All students must report to the college at the appointed place and time and fill out enrollment cards for the semester.

For failure to register at the appointed time, students will be charged a late registration fee of five dollars.

Orientation Program

The Orientation Program begins immediately following the student's matriculation and continues in formal and informal meetings during the first term of Freshman year.
It is designed to initiate the student into the climate of learning and the way of living at Holy Cross. Through discussions with Administrators, Faculty, and outstanding upper-classmen, the student's intellectual sights are set on the wide horizons of the educational adventure before him; the level of expectation of the student is lifted to those standards of responsible pursuit of learning which is the joint enterprise of faculty and students.

**Readmission**

Students who have withdrawn in good standing and wish to be readmitted to the college must apply to the Dean. Applications for the fall semester should be made prior to June 1, and prior to January 1 for the spring semester. Readmission is not automatic, although the College will give some measure of preference to such an application. Because of space limitations, applications for readmission will be considered in the light of many new applications to the College.

**Admission to Advanced Standing**

Application for admission to advanced standing in Holy Cross College by transfer from another college must be made prior to June 1 to the Dean of the College. Students are admitted only at the beginning of the Fall Semester.

Applicants must present (1) formal admission application, accompanied by a non-refundable $10 application fee; (2) a complete, official transcript of secondary school records; (3) a complete, official transcript of college records, including a statement of good standing; (4) estimates of character and ability given by two former college teachers; (5) official records of the Scholastic Aptitude Test of the College Entrance Examination Board; (6) statement of good health by a physician.

Admission will be granted only to those who have completed with high grades (at least B) courses equivalent to the courses completed by the class to which they are making application.

Transfer students are not eligible for scholarship assistance during their first year at the college.

**Admission of Special Students**

Occasionally applicants who fulfill all the requirements for admission may, with the approval of the Committee on Admissions, choose special courses without following a complete degree program. Such applicants will follow the procedures outlined for advanced standing applicants.

**Veterans**

Applicants who have completed military service and who, prior to their enlistment, satisfactorily completed their secondary school studies and are eligible for training under the educational benefits of Public Laws 550 and 894 will be accepted for admission to Holy Cross as entering Freshmen or with advanced standing, contingent upon their meeting the entrance requirements.

Servicemen who apply for admission should submit a brief statement of their previous educational background, including the name and location of schools they have attended.
Veterans who wish to support their application with supplementary information as to their academic competence and mental proficiency, may arrange to take the General Educational Development Test through the facilities of the U. S. Armed Forces Institute. The GED Test may not be offered in place of the CEEB Aptitude Tests, nor a State High School Equivalency Certificate, for an official four-year high school transcript.

Veterans applying for admission to the Freshman class should write to the Dean of Admissions.
Academic Information

GENERAL

The college year begins in the third week of September and ends on the second Wednesday of June, with recess periods at Christmas and Easter. It is constituted of two semesters of sixteen weeks each.

A semester hour represents a course which meets once a week throughout the semester. In ordinary lecture courses, the class period is of fifty minutes duration; in all laboratory work, the length of a period required to give a semester hour credit is twice the length of the ordinary lecture period. There are eight class periods each day, Monday through Friday. Class or laboratory periods begin at 8:30 A.M. Students are required to attend all academic and chapel exercises.

Grading System

A student's standing will be determined by the results of examinations, classroom work and assignments. The quality of the student's work will be graded as follows:

A—Outstanding; an unusual degree of scholarly initiative. B+—Superior work; eligibility for Honors Program. B—Intelligent application and grasp of subject matter. C+—Lowest recommendation grade for graduate work. C—Quality of work done by majority of students. D—Mastery of the minimum of subject matter. F—Failure. Course must be repeated. FA—Failure because of excessive absence. W—Official withdrawal. WF—Withdrawal while failing. WP—Withdrawal while passing. I—Incomplete. Incomplete grade may be removed with approval of the Dean by submission of work not later than one week after the final examination in the course.

Absence from Final Examination—approval of Dean is necessary for deferred examination.

The grade of C+ is the minimum recommendation grade, i.e. a cumulative average of at least C+ for all subjects in Senior year is required for recommendation by the Dean of Studies to a professional or graduate School. For a recommendation to certain professional or graduate Schools a grade of B may be required.

A semester grade of D is a Passing Grade.

A semester grade of F is a Deficient Failure Grade. A student who fails to attain a semester average of D in any course is deficient in that course and, to obtain credit for it, he must repeat the course.

There will be but one grade each semester for each course for each student. This grade will be submitted to the Registrar after the final examination. This grade will be the composite grade for recitations, reading assignments, tests, etc., and the final examination. In arriving at the composite grade equal weight will be given to class work and to the final examination.
Grades will not be translations of numerical scores, but will be interpreted in the following context:

a) Well organized preparation and presentation of subject matter.
b) Correct oral and written usage of English.
c) Successful completion of course assignments, tests, readings, examinations.
d) Constant attendance and classroom application (student neither a mere spectator nor auditor).
e) Initiative manifested by voluntary collateral work.

Reports of academic grades are sent to parents or guardian at the end of each semester.

**Quality Points**

Quality Point in a given course is the product of the number of credits assigned to the course, multiplied by the numerical value given to the grade achieved. Quality Point Average or Index is determined by dividing the total number of quality points achieved in all courses by the number of credit hours assigned to these courses.

Grade points determine the student's general average and measure the quality of the student's work as credit hours measure the quantitative requirements.

The grade “A” is assigned 4.0 points for each credit hour completed.
The grade “B+” is assigned 3.5 points for each credit hour completed.
The grade “B” is assigned 3.0 points for each credit hour completed.
The grade “C+” is assigned 2.5 points for each credit hour completed.
The grade “C” is assigned 2.0 points for each credit hour completed.
The grade “D” is assigned 1.0 points for each credit hour completed.
The grade “F,” “FA,” “WF” is assigned 0 for each credit hour.

**Honor Grades**

The following criteria determine honor grades:

**Graduation Honors**

*Summa Cum Laude:* Cumulative average of 3.87 or above
*Magna Cum Laude:* Cumulative average of 3.70-3.86
*Cum Laude:* Cumulative average of 3.50-3.69

**Dean's List**

*First Honors:* A non-cumulative average of 3.7 or above
*Second Honors:* A non-cumulative average of 3.5-3.69
Requirements for Good Standing

To be eligible for advancement to the next higher grade a student must be free of all deficiencies and must meet the required Q.P.I. for each semester (Cf. below).

A student who will remove a deficiency by achieving a satisfactory grade (C or better) in an approved summer school will not be liable to academic probation, provided his Q.P.I meets the requirement set for each semester. Deviation from this rule will be allowed by the Committee on Academic Standing only in cases of extreme hardship.

Freshman Year

Any student whose quality point average at the end of the first semester is below 1.5 will be on probation for the second semester.

Any student not having at least 1.0 at the end of the second semester will be dismissed.

Any student having 1.0 or more but less than 1.5 will be on probation for the first semester of second year. A student who has a cumulative average of 1.5 or better at the end of freshman year advances unconditionally.

Sophomore Year

Students who do not attain a non-cumulative average of 1.75 at the end of the first semester will be subject to dismissal or placed on probation at the discretion of the Committee on Academic Standing.

A student must have a cumulative average of 2.0 to advance unconditionally to junior year.

Any student with a cumulative average greater than 1.75 but less than 2.0 will be placed on probation for the first semester of junior year.

Any student with a cumulative average lower than 1.75 will be subject to dismissal.

Junior Year

Students not attaining a cumulative average of 2.0 at the end of the first semester will be subject to dismissal or placed on probation at the discretion of the Committee on Academic Standing.

Any student who does not have a cumulative average of 2.0 or better at the end of junior year will be subject to dismissal.

Senior Year

Students not attaining a cumulative average of 2.0 at the end of the first semester will be placed on probation.

Students who do not have a cumulative average of 2.0 or better will not graduate.

Special Studies Program

The Special Studies Program at Holy Cross covers the four years and meets the outstanding and promising student on his own level of ability and promise. By means of advanced sectioning, seminars, tutorials and independent study, the gifted student is challenged on the level of his interest and intellectual capability. The goal of the
program is the full development of the student toward intellectual self-reliance, scholarly resourcefulness, and the fruitful exploration of his potential as a scholar and an intellectual leader in his community.

There are two divisions of the Special Studies Program: FRESHMAN STUDIES, and the HONORS PROGRAM, which encompasses the Sophomore, Junior and Senior years. Although both programs are under the Committee on Special Studies, the two are separate, and inclusion in the Freshman seminars and special projects does not guarantee the student automatic admission to the Honors Program. At the same time, participation in the Freshman Studies Program is not a requisite for Honors candidacy.

Freshman Studies

The Freshman Studies Program for the promising student aims toward further articulation of advanced high school work with study on the collegiate level. It provides for advanced placement, special sectioning, freshman seminars, and tutorial study. It is open to students whose background and ability warrant special attention in the planning of their curriculum. The degree of advanced work possible for each student is determined by his special qualities and the requisite background demanded by the various academic disciplines.

Freshman Seminars

Seminars of no more than ten students each are offered, in lieu of the required Freshman Course in the Seminar area, by departments to those students whose high school work has been on an advanced or honors level. The student may apply for any seminar which he feels qualified to undertake. Application is to be made to the Special Studies Office during the summer prior to the Freshman year. A detailed outline of high school work in the field and a full statement concerning personal and academic qualifications should accompany the letter of application. Enrollment in a seminar will be permitted to those students who have demonstrated advanced ability in the field.

In 1962-1963, the following Seminars and Tutorials were conducted:

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<thead>
<tr>
<th>Subject</th>
<th>Course Numbers</th>
<th>Title</th>
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<tbody>
<tr>
<td>Greek</td>
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<td>Greek Rhetoric and the Education of Western Man</td>
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<td>Latin</td>
<td>17, 18</td>
<td>The Image of Rome</td>
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<td>15, 16</td>
<td>Advanced Placement Rhetoric Seminar</td>
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<td>17, 18</td>
<td>Satire and Sentimentalism of the 18th Century</td>
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<td>English</td>
<td>19, 20</td>
<td>The Drama: Problems and Explanations</td>
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<td>17, 18</td>
<td>The Elements of Western Civilization: Roman Law</td>
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<td>17, 18</td>
<td>Problems of Algebraic Structure and Elementary Analysis</td>
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<td>17, 18</td>
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<td>17, 18</td>
<td>Foundations of Modern Physical Science</td>
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<td>Theology</td>
<td>17, 18</td>
<td>Fundamental Theology</td>
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<tr>
<td>Economics</td>
<td>17, 18</td>
<td>Principles of Economics</td>
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</tbody>
</table>

The Honors Program

The Honors Program is concerned with a selective group of students who, through Freshman academic performance, faculty recommendation, national testing scores, and individual interviews, show outstanding capability and promise in their chosen academic disciplines.

1 Course title and content may vary from year to year.
field. For these students, the curriculum, though covering the fundamental requirements, is geared toward independent, responsible research and educational development.

The program has two major divisions: Sophomore Honors and Upper Division Honors. Both divisions follow in a sequential pattern with the desired end, the gradual training and encouragement of the student in directed research and independent study.

**Mid-Semester Survey and Warning**

Mid-way in each semester, students whose semester records are dangerously low are advised that failure to improve scholastically during the remainder of the semester may result in dismissal. A note to this effect is also sent to parents or guardian.

**Academic Probation**

Academic Probation is not a penalty but is a warning and an opportunity to improve. A student who has a deficient failure or who does not meet the required Q.P.I. at the end of any semester will be placed on probation (provided he is not liable to dismissal for failure to meet the minimum Q.P.I.) A student placed on probation will be notified of this status and his parents will be apprised of it. The student will be assigned an Advisor and will be instructed to make use of the aids available in the Counseling Center.

Academic Probation will be of 1 semester duration. If, however, further failures are incurred, or if the Q.P.I. required is not met at the end of one semester of probation, the student may be placed on probation for another semester (unless he has become liable for dismissal).

A student liable to a third successive semester on probation may be dismissed.

To remove probationary status, the student must achieve a passing grade in all courses and achieve the required Q.P.I. at the end of the semester of probation. All deficient failures must be cleared prior to progress to a higher grade.

A student on Academic Probation may participate in extracurricular activities with the approval of the Dean or the Assistant Dean. This approval is necessary in each individual case.

**Academic Failure**

Students who come under the following classifications will be considered to be academically unsatisfactory and will be asked to withdraw from the College:

1. A student who at the end of a semester is deficient in three or more courses. (A course is organized subject matter in which instruction is offered during a semester and for which 2, 3, or 4 credits toward graduation are given.)

2. A student who is deficient in three or more courses at the end of an academic year.

3. A student who during his college course has accumulated an excessive number of deficient failures, even if these have been removed by attendance at Summer School.
**Conditional Failure**

Freshmen who present satisfactory work in any course during the first semester but fail the final examination will be allowed a re-examination on the recommendation of the instructor. The highest grade for the course after the examination will be a passing grade. By failure in this second examination the Freshman incurs a deficiency.

**Credit for Summer Session Work**

The approval of the Dean of Studies is requisite to gain credit for work done in summer school at another college. Summer school courses must be passed with a grade of C or better to be recognized by the College as degree credits.

The grade achieved in summer school will be equivalated to the intent of the corresponding grade in the system of grades and quality points explained on page 56. The Q.P.I. of the student will include not only the grade and points (grade of F achieves no points) of the course in which the student failed, but also those of the course taken in summer school.

To improve the quality points achieved in any given course at Holy Cross College, a student may attend a summer school session with the approval of the Dean. The quality points and grade earned in the summer session will be recorded in his permanent academic records and will be considered as contributory to his degree credits but not to Dean's List or Graduation Honors.

If a student should be dismissed from the College because he has failed to maintain the required Quality Point Index, grades and quality points earned in a summer school will not be recognized and will not be recorded in his permanent academic records as contributing to a degree granted by Holy Cross College.

**Extra Courses**

A student in either Sophomore or Freshman class is not permitted to carry a greater number of hours than the normal number required in his course. Upperclassmen with a general average of B or over may, with the approval of the Dean, register for an extra course.

**Withdrawal from a Course**

Students who wish to withdraw from a course must have the approval of the instructor and the Dean.

Students withdrawing from a course during the first two weeks with the necessary approvals will be recorded as “W” (Withdrawn). After the second week permanent records of students withdrawing will carry “WF” (Failing), or “WP” (Passing). The estimate will be made by the Instructor. Withdrawal after the 10th week of course will be recorded as “WF” (Failing).

**Curriculum and Course Change**

Ordinarily the student must follow the program of the curriculum under which he is registered. If a change of course within a curriculum is advisable, this will be accomplished with approval of the Chairman of the Department affected and the written
permission of the Dean. No changes of course are permitted after the first 2 weeks of instruction.

Sometimes a change in a major program, sc. from a B.S. History to a B.S. Biology or Social Sciences, etc. may be requested by the student or recommended by his Advisor. Such a curriculum change will be authorized by the Dean.

Foreign Study

In the Junior year students who have achieved B+ academic work have the option of studying in Europe or remaining at Holy Cross. If the student elects to study in Europe, and is approved by the Faculty he must follow a course of study at an approved University.

Voluntary Withdrawal from College

A student who withdraws voluntarily from the college is entitled to honorable separation under the following conditions:
1. He must not be liable to dismissal for disciplinary reasons.
2. He must return all college property.
3. All financial indebtedness must be settled with the college.
4. He must give proper notification to the Dean of his intentions to withdraw from the college.

Transcripts of College Record

Each student is entitled, on leaving the college, to a transcript of his record free of charge if his financial obligations to the college have been fulfilled. For additional transcripts a fee of one dollar will be charged.

No transcripts will be issued during the periods of Commencement, Registration and Examinations.
Requirements for Degrees

The College of the Holy Cross offers curricula leading to the degrees of Bachelor of Arts (A.B.), Bachelor of Science (B.S.) and Master of Science (M.S. in Chemistry).¹

BACHELOR OF ARTS DEGREE

This program is established to foster studies in the ancient classics. Holy Cross considers the program, based as it is on the principles of the Ratio Studiorum, a perfect instrument to develop fully and harmoniously the intellectual, moral and aesthetic powers of the student. Courses in Latin, Greek or Mathematics, Philosophy, English Literature, Modern Language, History and Theology form the substance of the curriculum during the Freshman and Sophomore years. It should be noted that the student must have 3 or 4 units of Latin to be enrolled in this curriculum. In the Junior and Senior years the student may choose a field of concentration in preparation for graduate or professional school. Concomitantly with his studies in his major the student engages in courses in Philosophy, Ethics, Theology, and one course in an elective science. Holy Cross requires these courses in the firm belief that they bring a maturing influence into the life of the student.

BACHELOR OF SCIENCE DEGREE

The program of studies leading to the Bachelor of Science Degree artfully balances training in the required subjects of English Literature, Mathematics, History, Modern Language, Philosophy, Psychology, Ethics, Theology, the Natural and Social Sciences. These liberal subjects are integrated with courses that satisfy the career interest of the student or prepare him for graduate school work in the area of his choice. In some curricula of this program the general educational development of the student is stressed in the Freshman and Sophomore years, when the student is enrolled in basic college courses in English, Mathematics, Modern Language, History, Theology, Social Science, Philosophy. In the Junior and Senior years the student engages in his major field of concentration concomitantly with courses in Philosophy, Ethics, and Theology. In other curricula of the program (B.S. Biology) courses in the field of career interest are taken simultaneously with the Liberal Arts subjects. Holy Cross believes that this program of studies and the curricular requirements offer a nicely articulated liberal education. (Cf. pp. 64 sq.)

ORAL EXAMINATIONS IN PHILOSOPHY

Oral examinations in Philosophy are a privilege accorded Dean's List students.

¹ Cf. p. 119.
PUBLIC PRESENTATIONS

In May of each year professors from other colleges are invited to examine certain qualified students publicly in Philosophy and in a chosen area of Greek studies. Students selected for these Public Presentations are excused from the end-of-course examinations in these subjects.

HONORS

Gifted students enrolled in the curricula leading to the Bachelor's Degree in either the Arts or Sciences are invited to participate in the Honors Program (Cf. p. 58).

PREPARATION FOR PROFESSIONAL STUDY

The college offers programs of study that will prepare the student for the professional schools. These programs are carefully integrated with liberal subjects and lead to the degrees of Bachelor of Arts or Bachelor of Sciences (Cf. p. 64).

The Department of Chemistry is approved by the Committee on Professional Training of the American Chemical Society for its curriculum leading to the Bachelor of Science Degree.

Holy Cross offers no special program of courses to prepare students for the study of law. Students who wish to make such preparation are referred to their academic advisers.

R.O.T.C. STUDENTS

Appropriate substitution for courses in all programs is made for students enrolled in the Air Force and Naval R.O.T.C. Units.
Curriculum Requirements

The Bachelor of Arts Degree

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1 Courses required for admission to Medical School may be chosen under the direction of the student's Faculty Advisor.

2 To fulfill the science requirements of Junior Year, one of the following may be taken: Biology 41, 42; Chemistry 41, 42; Physics 41, 42; Physics 43, 44. Applicable to all curricula.

3 Elective courses may be chosen from one of the following fields: English Literature, Classical Languages, Modern Languages, History, Economics, Education, Political Science, Psychology, Sociology, Mathematics and the Natural Sciences. At least 8 courses must be completed in the major field in the Junior and Senior Years.
The Bachelor of Science Degree

A. BIOLOGY

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B. CHEMISTRY

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1 In effect 1963-1964.
2 German is required for those who desire certification by the American Chemical Society.
### C. MATHEMATICS

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### D. PHYSICS

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¹ Mathematics Department requires 4 courses in Social Sciences or Humanities.
### I. Accounting

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¹ 9 credit hours in Economics
² 6 credit hours in other electives
## F. ENGLISH

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<th>FRESHMAN</th>
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<td>Theology</td>
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<td>Elective Science</td>
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<td>Electives (4 courses)</td>
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<td>Electives (2 courses, social sciences)</td>
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## G. SOCIAL SCIENCES

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<td>Elective Science</td>
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<td>Electives in Field (4 courses)</td>
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1 Students interested in a career of secondary school teaching may register for two courses in Education in the senior year. Concentration must be in subject matter of teaching.
Courses of Instruction

DEPARTMENT OF

Biology

Professors: Busam, Malumphy
Associate Professors: Campbell, Crowe, Flavin (Chairman)
Assistant Professor: Lingappa
Instructor: Cook

The primary objective of the biology curriculum is to provide a broad and solid foundation in the biological sciences and to stimulate the interested student to pursue graduate study in this field. Consequently, basic courses are designed and required to meet this objective, in the belief that these will equip the student to the best advantage to enter the field of his choice after graduation. As a secondary, through very important objective, the program of courses is designed to satisfy the entrance requirements for the professional schools of medicine, dentistry, and veterinary medicine.

Biology 11.
General Botany.
A general survey of the plant kingdom, beginning with a study of the vegetative organs of flowering plants, treating both gross and minute structures in their various modifications and physiology. Plant cytology receives detailed consideration with studies in cell structure, nuclear and cell division, and the meiotic divisions. This prepares the ground for a complete synoptic series of the various phyla treated immediately next in order. The course concludes with special studies of the reproductive organs of the flowering plant. Three lectures and one (four-hour) laboratory period.

Four credit hours.

Biology 12, (55).
General Zoology.
A general survey of the animal kingdom, introduced by a rapid consideration of the frog to acquaint the student with fundamental notions of structure and physiology. This is followed by a study of the animal cell with its nuclear, cell, and meiotic divisions. Here the laws of heredity are expounded and each evolved with the fruit fly as the specimen of exemplification. The study of the synoptic series of invertebrates is then taken up. Three lectures and one (four-hour) laboratory period.

Four credit hours.

Biology 21, (66).
Vertebrate Embryology.
A study of the development anatomy of vertebrates from the early history of the gametes to the stage of growth exemplified in the 10 mm. pig. Fertilization, segmentation, formation of the three germ layers are studied in the ascaris, sea urchin, amphioxus, and frog. A detailed consideration of the chick embryo from the primitive streak through the 72-hour stage then follows; ending with a thorough study of the 10 mm. pig. The course concludes with a consideration of the theoretical aspects, (as arising from modern experimental studies). Three lectures and one (four-hour) laboratory period.

Four credit hours.

Biology 22.
Comparative Anatomy.
A comparative general study of vertebrate anatomy, development and phylogeny, considering the various systems of organs of the vertebrate body, tracing their evolution through the different classes of vertebrates in terms of basic concepts, principles and methods of comparative zoology. Structure is constantly correlated with function. Laboratory work based upon the systemic study and dissection of representative vertebrates, dogfish, skate, turtle or pigeon, and cat or rabbit. Three lectures and one (four-hour) laboratory period.

Four credit hours.
Biology 41, 42.
General Biology

The more important generalizations of biology and the phenomena upon which they are based with particular emphasis upon: the universal phenomena characteristic of all living things; the fundamentals of plant and animal structure, nutrition, reproduction, and the integration of the organism as a whole. Two lectures and one (two-hour) laboratory period.

_Six credit hours._

Biology 51, (56).
Mammalian Anatomy.

This course provides a detailed study of the rabbit, stressing the skeleton and other anatomical features. Two lectures and two (two-hour) laboratory periods.

_Four credit hours._

Biology 52, (65).
Vertebrate Histology.

This course is a microscopic study of the anatomy of the vertebrates, beginning with a review of the fundamental facts of cellular structure, as treated in Biology 12. Following this is a detailed study of the four normal types of adult tissues: epithelium, connective, muscular, and nervous tissues. The course concludes with an analysis of the various tissue combinations as illustrated in the organs and systems of the vertebrate organism. The laboratory exercises include the study and practical application of the paraffin, celloidin, and freezing methods of preparing tissues for microscopic examination. Three lectures and one (four-hour) laboratory period, one (four-hour) laboratory period for four weeks in Microtechnique.

_Four credit hours._

Biology 61.
Genetics.

A course designed to acquaint the student with the fundamentals of heredity and variation. Among the topics considered are: the history of genetics, the significance of the science, Mendelian inheritance, the chromosome theory, factor interaction, sex determination, linkage and crossing over, gene and chromosome mutation, population genetics, genetics and evolution, human inheritance, and practical applications of the science. Problems exemplifying principles and experimentation are assigned for drill. Laboratory work consists chiefly of elementary exercises in cytogenetics and breeding experiments with Drosophila. Three lectures and one (four-hour) laboratory period.

_Four credit hours._

Biology 62.
General Physiology.

Vital activities of living cells and tissues and the associated physicochemical phenomena; the physiological significance of factors such as water and other electrolytes, hydrogen and other ions, surface forces, colloidal state, osmotic pressure, membrane permeability, and electrical forces. Three lectures and two laboratory periods.

_Four credit hours._

Biology 64.
Microbiology.

The physiology and variation of microorganisms, with emphasis on the laboratory use of microbial populations in studies of cellular biology. Three lectures and two laboratory periods.

_Four credit hours._
Courses of Instruction

DEPARTMENT OF

Chemistry

Professors: Baril, Charest, Kiekers, VanHook
Associate Professors: Martus (Chairman), Tansey
Assistant Professors: McMaster, O'Hara, Ricci
Research Associate: Bishop

The Department of Chemistry serves students with concentration in chemistry, biology, physics, pre-medicine and pre-dentistry. The Department offers an elective in general chemistry to students in the Junior year who wish to satisfy curriculum requirements. The aim of the Department is to provide a sound training in the fundamental principles and basic techniques of the science rather than to deal with specialized branches of the subject. The curriculum of the Department of Chemistry has been approved by the Committee on Professional Training of the American Chemical Society. A research thesis is normally required for the Bachelor's degree. Arrangements for transfer to chemistry and/or pre-medical, pre-dental studies from other curricula are often feasible and the degree with major in Chemistry can be awarded, even though professional certification cannot be allowed.

A student who desires a Bachelor of Science degree in chemistry, without certification by the American Chemical Society, is required to take the following courses in the Department of Chemistry: 11, 12, 21, 22, 53, 54, 55, 56, 65, 66.

Those who desire the A.C.S. certification, or recommendation for graduate studies in chemistry, are required to elect, in addition to the above courses: Chemistry 57, 58, 61, 62. By arrangement with the Chairmen of the Departments involved a student may elect an upper division course in physics and/or mathematics or another upper division chemistry course in place of chemistry 61 and/or chemistry 62.

Chemistry 11.
General Principles of Chemistry 1.

A study of the fundamental theories and general laws of chemistry is made. Sub-atomic and kinetic molecular structure of matter is emphasized. The periodic table of the elements is introduced with sufficient descriptive chemistry to illustrate theory. Chemical calculations constitute a large part of the course. Experiments of a quantitative nature are stressed in the laboratory.

As a prerequisite it is strongly recommended that the student have had high school courses in both chemistry and physics.

Chemistry 12.
General Principles of Chemistry II and Qualitative Analysis.

This course is a continuation of Chemistry 11. It includes a study of solution chemistry, ionic equilibria, acid-base equilibria and oxidation-reduction reactions in electro-chemical cells. Introductory concepts of thermochemistry and the energies involved in chemical reactions are also introduced. Again chemical calculations are strongly stressed. The laboratory is devoted largely
to a systematic qualitative study of the common cations and anions.
A prerequisite for all continuing courses in chemistry. Required for majors in chemistry, biology, physics and pre-medical students.
Three lectures and one four-hour laboratory period per week. *Four credit hours.*

**Chemistry 21. (Formerly 51)**
*Organic Chemistry I.*
This course consists of lectures designed to introduce the student of Organic Chemistry to modern structural theory and reaction mechanisms. Emphasis is placed on atomic and molecular structure, covalent bonding, acidity and basicity, reaction rates and equilibrium, transition state and energy of activation, isomerism, and conformations. These theories are applied to the synthesis and reactions of aliphatic and aromatic hydrocarbons, halides and ethers. Alcohols are similarly studied. Inductive and resonance theories are developed. Synthesis is emphasized in the laboratory.
Three lectures and two four-hour laboratory periods per week. *Four credit hours.*

**Chemistry 22. (Formerly 52)**
*Organic Chemistry II.*
This course is a continuation of Organic Chemistry I. The theories previously developed are applied to the synthesis of organic acids, amines, phenols and carbonyl compounds. Polyfunctional compounds are similarly treated. Selected topics in carbohydrate, polynuclear aromatic, heterocyclic and protein chemistry are presented. Synthesis is again emphasized in the laboratory.
Three lectures and two four-hour laboratory periods per week. *Four credit hours.*

**Chemistry 23. (Formerly 65)**
*Organic Chemistry I.*
This course is essentially the same as chemistry 21 but for a shorter laboratory requirement. Required of pre-medical students and biology majors.
Three lectures and one four-hour laboratory period per week. *Four credit hours.*

**Chemistry 24. (Formerly 66)**
*Organic Chemistry II.*
This course is essentially the same as chemistry 22 but for a shorter laboratory requirement. Required of pre-medical students and biology majors.
Three lectures and one four-hour laboratory period per week. *Four credit hours.*

**Chemistry 41, 42.**
*General Chemistry.*
This course intends to give students, who are not otherwise preoccupied with science, an insight into the material make-up of the world about them. It ranges from subatomic particles through atoms, molecules and the modern "giant molecules" that have been emphasized in plastics, synthetic fabrics and textiles as well as in living tissue. Descriptive matter for this course is chosen from economic substances such as sulfuric acid, petroleum, coal tar, rubber, plastics, foods, vitamins, hormones and steel. The laboratory part is selected from the traditions of general chemical laboratory instruction at the start of the course; towards its conclusion, however, a survey of chemical methods of analysis, instrumentation, organic and physical chemistry is made. Demonstrations are used; the scientific method is emphasized. Two lecture hours with demonstration and one (two-hour) laboratory period per week. *Six credit hours.*

**Chemistry 53. (Formerly 21)**
*Analytical Chemistry I.*
This course is designed to give the student a working knowledge of the analytical methods and techniques used in chemistry. The lectures stress: 1) the chemical principles fundamental to quantitative analysis; 2) the theory of physical and physicochemical methods of analysis. The laboratory exercises encompass a variety of volumetric and gravimetric experiments, including acid-base titrations, oxidation-reduction titrations and the Kjeldahl Nitrogen determination.
Two lectures and one four-hour laboratory period per week. *Four credit hours.*

**Chemistry 54.**
*Analytical Chemistry II.*
This is a course in instrumental analysis and treats the theory and practice of the application of instrumental methods to quantitative analysis. The methods studied will include spectrophotometry, chromatography, polarography and electro-analytical techniques. Organic as well as inorganic compounds will comprise the materials under study.
Two lectures and one four-hour laboratory period per week. *Four credit hours.*
Chemistry 55. (Formerly 56)
Physical Chemistry I.

A study is made of the fundamental principles and methods by which the behavior of matter in its various states and forms is interpreted. A study of gases, liquids and solids, molecular constitution, thermochemistry, thermodynamics and the quantitative laws of solution is undertaken. Laboratory training in this and the following course is designed to test the more important physico-chemical laws; to inculcate physico-chemical technique; and to develop the habit of quantitative interpretation of such phenomena.

Three lectures and five hours of laboratory per week.  
Four credit hours.

Chemistry 56. (Formerly 57)
Physical Chemistry II.

This is a continuance of Physical Chemistry I. Homogeneous and heterogeneous equilibria, reaction kinetics, electrical conductance, electromotive and ionic equilibria are studied. Selected topics from chemical thermodynamics, quantum theory, photochemistry and particle structure are included.

Three lectures and five hours of laboratory per week.  
Four credit hour.

Chemistry 57.
Inorganic Chemistry.

The lectures in this course comprise a study of the structure of inorganic compounds and the interrelations of elements and compounds according to the periodic chart. Valence studies are stressed and the ideas of Werner, Pauling, Price and current workers in the field are emphasized. The laboratory part of the course begins with inorganic preparations and progress into instrumental, analytic and advanced methods, such as liquid ammonia syntheses and the like. Industrial analysis is touched upon.

Three lectures and one four-hour laboratory period per week.  
Four credit hours.

Chemistry 58.
Adv. Physical Chemistry.

This course is designed to acquaint the student with the forces which exist between and within atoms. The structure of the atoms and electronic configuration will be considered, as well as brief discussion of quantum theory and the electronic theory of valence. The nature of the chemical bond will be discussed and the molecular-orbital and atomic-orbital treatments will be applied. A study of the experimental methods used in determining molecular structure will also be included.

Three lectures per week.  
Three credit hours.

Chemistry 61.
Advanced Organic Chemistry I.

This course is comprised essentially of semi-micro qualitative organic analysis. The laboratory part includes the identification of the following unknown types: solid, liquid, liquid mixture, drug, dye, alkaloid and a commercial product. In preparation for a part of the work in second semester, lectures are given on semi-micro, ultimate and functional group, quantitative organic analysis. For this course, a reading knowledge of scientific German is highly desirable.

Two lectures and four hours of laboratory per week.  
Four credit hours.

Chemistry 62.
Advanced Organic Chemistry II.

This course is devoted to a study of the ionic mechanisms in organic reactions. It includes the following topics: structure and bonding of organic molecules, resonance and steric effects; methods for determining reaction mechanisms; electrophilic and nucleophilic substitutions in aliphatic and aromatic systems; elimination and addition reactions; molecular rearrangements. The laboratory includes advanced topics in synthetic organic chemistry.

Two lectures and one four-hour laboratory period per week.  
Four credit hours.
Chemistry 63. (Formerly 26)
Quantitative Analysis.

This course is designed to instruct the pre-medical student in the theory and practice of quantitative analysis. The lectures briefly consider some of the more common physicochemical methods of analysis as well as offering a foundation in the fundamentals of quantitative analysis. Acid-base titrations, oxidation-reduction titrations, application of the solubility product principles and the Kjeldahl determination of nitrogen are included in the laboratory exercises. Required of all pre-medical students.

Two lectures and one four-hour laboratory period per week. Four credit hours.

Chemistry 65.

Once a week senior chemistry majors meet with the staff and graduate students in seminar.

For information on graduate courses in chemistry, refer to page 119.

Chemistry 66.
Undergraduate Investigation in Chemistry.

This involves an original and individual experimental investigation with associated literature study in one of the fields of chemistry under the supervision of a member of the staff. Preliminary reading and a weekly colloquium is required. The time spent in laboratory experimentation should not exceed 45 hours. This is equivalent to a three-hour laboratory period per week for one semester. Two credit hours.
Courses of Instruction

DEPARTMENT OF

The Classics

Professors: Ahearn, Bean, Izzo, Marique, Sampey
Associate Professors: Buckley, Donaldson
Assistant Professors: G. Barry, Carroll
Instructors: Banks (Chairman), Carty, Hoppe, Lavery, Loewy

The literature of Greece and Rome as formulative factors of primary importance in the culture of the West is the dominant note in the study of Plato, the dramatists, the orators of Greece and their Latin imitators. Direct and remote influences by Greek and Latin authors on the style and content of European literature and especially on English are capital considerations in the study of Cicero and Plato, Horace and Sophocles and the whole series of incomparable masterpieces which have shaped our literatures. Hence, an accurate and detailed study of the original is indispensable to savor and know what our debt is and what absolute values still stand as the model of clear, cogent and graceful writing and speech.

1. GREEK

Greek 11, 12.
Elementary Greek.
Orthography, oral reading and memory of short Greek sentences. Study of grammar with results tested in composition work.
Six credit hours.

Greek 13.
Intermediate Greek.
Intensive review of grammar. Herodotus—selections from the Histories and a study of Athenian culture. Prerequisite: 2 years of high school preparation.
Three credit hours.

Greek 14.
Intermediate Greek.
Plato’s Apology with readings from the Crito and Phaedo. A study of Athenian culture and Plato’s influence on literature.
Three credit hours.

Greek 15.
Plato.
Plato’s Apology with readings from the Crito and Phaedo. A study of Athenian culture and Plato’s influence on literature.
Three credit hours.

Greek 16.
Lyric Poetry—Theocritus.
A survey of the rise and development of elegiac, iambic, and melic forms among the Greeks.
A study of the mime, pastoral verse and its persistence in later literature.
Three credit hours.

Greek 17, 18.
Greek Rhetoric and the Education of Western Man.
A seminar study of language communication from Homer to Demosthenes and the impact of the Greek achievement on the West.
Six credit hours.

Greek 21.
Intermediate Greek.
Intensive grammar review. Plato’s Apology and references to the Crito and Phaedo. A study of Athenian culture and Plato’s influence on literature. Prerequisite: Greek 11, 12.
Three credit hours.

Greek 22.
Intermediate Greek.
Euripides’ Medea. A study of Greek tragedy and the special contribution of Euripides to this field.
Three credit hours.

1 Special Studies Program. Cf. p. 58.
Greek 25.  
Advanced Greek.

A careful reading of selected works of Demosthenes, with a study of the political background of the period.  

Three credit hours.

Greek 26.  
Advanced Greek.

Oedipus Tyrannus—a study of the principles of Greek tragedy and the text of Sophocles. Reference is made to the Coloneus and Antigone in translation.  

Three credit hours.

Greek 57.  
History of Greece.

An historical and literary study of Greek culture from the creation of Cretan civilization in 3000 B.C. to the death of Alexander and of democracy in 322 B.C. The course will include deep reading of both ancient authors and modern archaeologists. No Greek is required.

Three credit hours.

Greek 59.  
Aristophanes.

Three of the comic classics, The Frogs, The Clouds, and Lysistrata will be read in Greek, while the remainder of the Aristophanic corpus will be read in English. The seminar will also include a study of the physical evolution of the Greek theatre and its influence upon the dramatic shape of the Greek drama.

Three credit hours.

Greek 81.  
Greek Drama. (Euripides)

An analysis of three plays in Greek, with special attention on the dramatic technique and "modern" views of Euripides.

Three credit hours.

Greek 82.  
Greek Drama. (Sophocles)

An analysis of three of the plays in Greek, with special attention on the tragic art of Sophocles as revealed through his study of philosophic man.

Three credit hours.

Students intending to go into Classics in graduate school will be expected to audit the following series of several, non-credit lectures.

Methodology of Classics.

A brief history of classical scholarship, especially from the Renaissance, forms part of the course. The "disciplines" involved are textual criticism, epigraphy, palaeography, lexicography and the other subsidiary sciences which make it possible to know classical civilization more accurately and more intimately.

Hellenic Tradition Seminar.

Students majoring in the Classics engage in the following courses and are expected to gain a certain mastery of the authors studied and the influence of their works on later literature. The Hellenic Tradition Seminar does not study Greek literature in isolation but with constant attention to Fortleben in all aspects relevant to the author under consideration.

Greek 55, 56.  
The Drama of Euripides.

First Term: Alcestis, Andromache, Hecuba, Hippolytus and Medea. Second Term: Orestes, Bacchae, Iphigenia in Tauris, Ion and Electra. Influence of Euripidean drama on future literatures is specially considered. Intensive consideration is given to metrics, stage directions and antiquities and textual criticism.  

(Offered in 1956-57) Six credit hours.

Greek 61, 62.  
Plato, nine dialogues.

The translation and critical appreciation of the text; philosophical and literary criticism.  

(Offered in 1958-59) Six credit hours.

Greek 71, 72.  
Thucydides, the Histories.

All 8 books are to be covered completely and the students are responsible for translation and explanation of the text; historical and critical background; the influence of Thucydides and his qualities as an historian.  

(Offered in 1957-58) Six credit hours.

Greek 73, 74.  
Sophocles.

The works of the great tragic writer in the original; a thorough familiarity with important literature on the subject; the
influence of Sophocles on subsequent literatures of western civilization.
(Offered in 1959-60) Six credit hours.

Greek 75, 76.

Herodotus.
The text of the 9 books of the Histories; a study of the art form of the work; the antecedents of historical writing; Herodotus as a scientific writer; Greek History from the Persian wars to 431 B.C.; the contemporaries of Herodotus; his influence on later literatures.
(Offered in 1960-61) Six credit hours.

Greek 77, 78.

Aeschylus.
A study of the drama of Aeschylus to complete the Honors Program's investigation of the Greek Drama. This involves familiarity with the text, dramatic principles and historical background.
(Offered in 1961-62) Six credit hours.

Greek 79, 80.

Attic Greek Orators.
A study of the education of Western Man from the rhetoric of Homer to Demosthenes with special emphasis on the Attic Orators.
(Offered in 1962-63) Six credit hours.

II. LATIN

Latin 11.

Cicero, Horace.
Pro Archia—Translation of text and a study of Cicero in Roman Life and Letters. Ars Poetica—Translation of text and a study of Horace as the fountainhead of Western Literary Criticism.

Three credit hours.

Latin 12.

Horace, Catullus, Livy.
Selections from the odes of Horace and Catullus with a study of the philosophy of life and literature therein reflected. Livy—Readings from Book XXI and a study of Livy as an historian.

Three credit hours.

Latin 15, 16.

Intermediate Latin.
A course for those who have had two years of high school Latin. The first semester is devoted to a review of grammar, composition and the First Catiline of Cicero.

1 Special Studies Program. Cf. p. 58.

The second semester is devoted to a study of Cicero, Virgil, Horace and Catullus.

Six credit hours.

Latin 17, 18.

The Image of Rome.
The purpose of this seminar is to give a more than ordinarily thorough grounding in Latin language and literature as well as in Roman history. Special attention is given to the techniques of literary analysis and to the problem of literary genres in the ancient world since both are unlike modern literary forms and techniques.

Currently, the seminar centers chiefly on the works of Livy, Catullus and Virgil.

Three credit hours.

Latin 21.

Tacitus.
Agricola or Selections from the Annales. Study of Tacitus as a stylist and historian. Advanced work in Latin Composition.

Three credit hours.

Latin 22.

Juvenal and Cicero.
Juvenal—selected satires. Study of Roman satire and satirists. Cicero—Pro Lege Manilia—a thorough study and application of the principles of Oratorical Composition.

Three credit hours.

Latin 25, 26.

Roman Satire and Tacitus.
This course is planned for Advanced Placement students. In the first semester the origins and development of Roman Satire will be studied with emphasis on the texts of Horace and Juvenal. In the second semester Tacitus will be studied as an historian through selections from his 'Annales' and 'Historiae'. (If the student's Advanced Placement Course in High School has not covered the Odes of Horace and the poems of Catullus, the first semester will begin with a study of these authors, then move into satire followed by Tacitus.)

Six credit hours.

Latin 27, 28.

Classics in Translation.
This course is a required course for students majoring in English and Mathematics. Cf. English 27, 28.

Six credit hours.

Students in the Honors Program majoring in the Classics engage in the following courses and are expected to gain a certain mastery of the authors studied and the influence of their works on later literature.
Latin 53.
Survey of Latin Literature.

Directed reading in those Latin authors not taken during the first two years. Emphasis will be placed on reading as much Latin as possible. Three credit hours.

Latin 54.
Mediaeval Latin Literature. (chiefly verse literature)

This course deals with the Latin literature of the first 800 years of the Christian era. The hymns of the Christian Church by Ambrose, Prudentius, Sedulius, Fortunatus; the lyrics of Ausonius and Paulinus. The influence of Irish and British monastic scholars and missionaries upon Europe: Columba, Columban, Bede, Boniface and the works attributed to them. The revival of learning under Charlemagne. The Palatine School, its scholars, and chiefly Alcuin.
Three credit hours.

Latin 59.
Roman Pastoral.

The development of pastoral poetry in Rome as exemplified in Vergil's ten Eclogues. Emphasis will be placed on Vergil's artistic originality and on the reflection in the Eclogues of contemporary social, economic and political conditions.
Three credit hours.

Latin 64.
Roman Comedy.

A reading of two comedies of Plautus and two comedies of Terence.
Three credit hours.

Latin 66.
The Latin Elegiac Poets.

Selections from the elegiac verse of Propertius, Tibullus, and Ovid; a survey of the principal themes of the genre; the specific contributions that each poet made to the tradition; the continuation of the tradition in the love poetry of the Latin Middle Ages.
Three credit hours.

Latin 68.
Georgics of Vergil.

A study of the Georgics revealing Vergil as a poet of nature in the best Hesiodic and Lucretian traditions.
Three credit hours.

Latin 70.
History of Rome.

The growth and downfall of the Roman Republic; the establishment of the principate; imperial government to the time of Diocletian; social and economic developments; foreign policy; sources for our reconstruction of Roman history. No Latin is required.
Three credit hours.
Courses of Instruction

DEPARTMENT OF

Economics

Professors: Peragallo (Chairman), R. F. X. Cahill, B. W. McCarthy
Associate Professors: T. J. Cahill, Callaghan, R. J. Smith
Assistant Professors: Gross, O'Connell, Petrella, Reid
Instructors: D. A. King, Zwerneman

The curriculum of the department has been conceived with the one major objective of providing the student with as broad and well balanced an education as possible. Specialization is kept to a minimum. Course content is basically theoretical and aimed at developing the student's analytical and critical faculties, at stimulating his powers of interpretation, synthesis and understanding, and at training him to exact thinking. The emphasis is on the understanding of our economic system and on the analysis of its economic and business problems. The student is thus prepared to continue his education at the graduate level or to enter effectively into the business world. The curriculum is broadly integrated and in accordance with the liberal arts tradition.

Economics 11, 12 (41, 42).
Principles of Economics.

A study of the basic institutions and principles underlying the operation of the economic system. Particular attention is given to the factors of production, the laws of demand, supply and price, the conditions of pure and imperfect competition, monopoly, the laws of distribution, money and banking, interregional trade, government and business, business cycles, labor problems and comparative economic systems.

Six credit hours.

Economics 15, 16 (43, 44).
Financial and Administrative Accounting.

A study of the fundamental principles of accounting and of the theory upon which these principles are based. Topics covered include the steps in the accounting cycle leading to the preparation of the balance sheet and income statement, the valuation of current and fixed assets, accounting for payroll, and the special problems involved in partnership and corporation accounts. Two practice sets are done outside of class.

Six credit hours.

Economics 17, 18.
Principles of Economics.

This program involves an accelerated, analytical development of the principles of Economics in addition to student participation and discussion on selected works in the area of history of economic ideas and institutions.

Six credit hours.

Economics 21 (also History 55).
Economic History of the United States.

A critical study of the development of the American economy from Colonial days to the present, focusing attention on such areas as agriculture, labor and industry, population and immigration, banking and finance, foreign and domestic commerce, transportation and communication, and the changing role of the government in economic life. Lectures, outside readings, book review.

Three credit hours.

Economics 25.
Economic Theory—Micro-Economics.

This course offers a micro-economic analysis of some sophistication. It treats of
the geometry of modern demand and of utility. It analyzes production functions and competitive pricing. It contrasts the markets of monopoly and oligopoly. The assumptions and limitations of the classical models of economics are closely scrutinized.

*Three credit hours.*

**Economics 26.**
**Economic Theory—Macro-Economics.**

This is a post-Keynesian analysis that studies, not the individual firms, but the aggregates in the economy.

The broad topics considered are: The Measurement of Economic Activity—The Level of Economic Activity; Growth and Fluctuations; Problems in the Control of Economic Activity.

More specifically: gross national product accounts; the theory of income determination; the level of investment; the money market; the level of employment; theories of growth; inflation; fiscal policies; foreign trade and the level of incomes. Prerequisite: Eco. 11, 12. *Three credit hours.*

**Economics 27.**
**Introduction to Current General Psychology.**

Given by the Department of Philosophy. *Three credit hours.*

**Economics 28.**
**Principles of Sociology.**

Given by the Department of Sociology. *Three credit hours.*

**Economics 31, 32 (45, 46).**
**Asset and Equity Accounting.**

This course provides instruction in corporation accounting with special emphasis on the preparation and interpretation of corporate financial statements. A thorough study of the balance sheet is made from the viewpoint of content and proper valuation procedures, with special emphasis on pertinent American Institute of Accounting Bulletins. Statements are analyzed by means of horizontal and vertical analysis and through ratio analysis. Training is also given in the preparation of statements from incomplete data, and in the preparation of the statement of application of funds. *Six credit hours.*

**Economics 35, 36.**
**Business Law.**

Required of all students majoring in Accounting. The course includes contracts, agency, sales and negotiable instruments. The course is intended to correlate the accounting and legal aspects in reference to common business transactions.

*Four credit hours.*

**Economics 47, 48.**
**Business Law.**

The course includes a study of legal aspects of Partnerships and corporations; personal property, real property, insurance, trade regulations and business torts. Prerequisite: Eco. 35, 36. *Four credit hours.*

**Economics 49.**
**Labor Economics.**

The economic and institutional aspects of the labor management relation are developed. Discussed are a theoretical framework for the study of union-management relations, the union in American institutional life, the philosophy of the American labor movement, bargaining power, the influence of unions on labor mobility, unions and productivity, the influence of strikes on the economy, wage setting in organized and unorganized industries, the monopoly power of unions, the economics of minimum wage legislation, full employment and inflation and union influence on the distribution of income. Prerequisite: Eco. 25, 26. *Three credit hours.*

**Economics 51.**
**Corporation Finance.**

After first considering the corporation vis-a-vis other forms of business organization this course treats of the organization and control of corporations, alternative methods of financing both long-term and short-term requirements for funds, characteristic financial policies and structures of important industry groups, and the role of the promoter and of the investment banker in business finance. Attention is also given to the preparation of cash budgets and the analysis of financial statements. Prerequisite: Eco. 11, 12. *Three credit hours.*

**Economics 52.**
**Statistical Analysis.**

The course is intended to orient the student in the use of statistical methods in economic analysis. The basic concepts of statistical inference, probability theory, and correlation analysis are applied to investi-
gations of price and income data and theory, decision theory, and an introduction to stochastic models. Prerequisite: Econ. 11, 12 and Math 16. Three credit hours.

**Economics 53.**
**Money and Banking.**

The purpose of this course is to introduce the student to the economic principles governing modern monetary arrangements, credit and banking in the economic system. Special emphasis is placed upon an understanding and evaluation of the control mechanisms in the central banking system and the integration of modern income and monetary theory. Prerequisite: Econ. 11, 12. Three credit hours.

**Economics 55.**
**Business Law.**

This course is intended to give the student some knowledge of the ordinary legal aspects of common business transactions. The course includes contracts, agency, sales, negotiable instruments and other topics of special importance as a law background of business. Three credit hours.

**Economics 57.**
**Investments.**

This course is devoted to a study of basic investment concepts; a consideration of classes of securities; investment mechanics and sources of information; and an analysis of industrial, railroad and public utility securities. Prerequisites: Econ. 16, 51. Two credit hours.

**Economics 58.**
**Public Finance.**

This course covers the basic concepts of governmental expenditure, taxation, debt, budget, fiscal policy, intergovernmental fiscal relations, and foreign public finance systems. The economic consequences of public fiscal policies are emphasized. Two credit hours.

**Economics 59.**
**Advanced Corporation Finance.**

The attention of this course is focused upon the problems involved in the expansion, combination, reorganization, and liquidation of business corporations. Topics covered include mergers and consolidations, the holding company, and treatments for financial failure. The course concludes with a consideration of the social aspects of corporate financial policies. Prerequisite: Econ. 51. Two credit hours.

**Economics 61, 62.**
**Cost Accounting.**

An introductory study of basic cost accounting principles, practices, and procedures, with a special emphasis on job order costs, process costs, standard cost, and estimated costs; managerial control through the use of cost accounting data and procedures; and special applications of cost accounting procedures. Prerequisite: Econ. 31, 32. Six credit hours.

**Economics 63, 64.**
**Auditing.**

A study of the theory and practice of auditing. The laboratory work covers a test audit of a small manufacturing concern. A written thesis is required and it must be reported upon and defended in an open discussion group. Prerequisite: Econ. 61, 62. Six credit hours.

**Economics 65, 66.**
**Federal Income Taxation.**

A study of the federal income tax laws as they affect individuals, partnerships, and corporations. Consideration is also given to the history of the federal income tax statutes, various proposals for tax reform, and the use of tax policy as a tool to stimulate economic development and counteract cyclical fluctuations. Prerequisite: Economics 31, 32. Four credit hours.

**Economics 67.**
**Advanced Accounting.**

Parent and subsidiary accounting relationships are studied and a critical analysis is made of the principles and postulates of accounting based upon the study of the Accounting Research Bulletins of the American Institute of Accountants and the Accounting Releases of the Securities and Exchange Commission. Research topics are assigned and reported upon. The course is organized on a group discussion basis. Prerequisite: Econ. 61, 62. Three credit hours.

**Economics 71.**
**History of Economic Thought.**

The aim of this course is to stress critically the development of ideas and theories which now dominate economic science, by
viewing these various contributions at their sources. Prerequisite: Eco. 25, 26.

Economics 72.
Modern Economic Theories.
This course deals with the ideas and theories which are now current, examining the biographical background of the various authors, the genesis of their contributions, and instituting a critical evaluation of their work. Prerequisite: Eco. 25, 26.

Three credit hours.

Economics 73.
Comparative Economic Systems.
An historical and critical analysis of the various systems of economy is made. The origin, nature, function and economic significance of Communism, Socialism, Nazism, Fascism, Capitalism are explained.

The broad foundations of social philosophy underlying each system are emphasized, as are the variants between theory and practice. The social goals and economic institutions of the various systems are compared. Prerequisite: Economics 25, 26.

Three credit hours.

Economics 75, 76.
Government in Economic Life.
This course presents an investigation of the philosophical basis of government-business relationship together with an historical development of control. It includes also a study of American constitutional tools and the practice of enforced competition, special problems of control relative to trusts, public utilities, transportation, extractive industries, exchanges and labor. Prerequisite: Eco. 11, 12.

Six credit hours.

Economics 77.
Pro-Seminar in Economic Order.
Reading and research under direction on a series of economic problems with individual reports and group discussion.

Three credit hours.

Economics 78.
International Economics.
This course is primarily a study of the theory of international trade. It is concerned with the theoretical basis for international trade, the determination of the terms of trade among nations, the price and income adjustment processes in a nation's balance of payments and the effect of restrictions such as tariffs and import quotas upon a trade situation. Prerequisite: Eco. 25, 26.

Three credit hours.

Economics 91.
Social and Labor Legislation.
A non-technical study of the various Federal statutes affecting industrial relations. Scope: a review of the background of Labor Law, the application of the Sherman Act to labor organizations, the Norris-La Guardia Act, the Railway Labor Act, the National Labor Relations Act, the Labor Management Relations Act, Social Security and Workman's Compensation. Study by case method is utilized to bring out the content of these statutes and interpretations by courts and administrative agencies.

Three credit hours.

Economics 95, 96.
Collective Bargaining and Union Management Negotiations.
This course attempts to survey the major aspects of contemporary Collective Bargaining. Both the lecture method and the case study method are used to give a general knowledge of Union and Management Power, the Negotiation of the Agreement, the Administration of the Agreement, and Third Parties in Labor Disputes. Prerequisite: Eco. 91

Six credit hours.
 Courses of Instruction

DEPARTMENT OF

Education

Instructor: Maguire (Acting Chairman)

To meet the needs of those students who wish to become secondary school teachers upon graduation or thereafter, the Teacher Preparation Program offers a number of courses in Education to juniors and seniors. All courses are by arrangement with the instructor, to enable the student to develop his potential to the fullest, and to allow the greatest freedom in courses. The program is especially geared to the requirements for public secondary school teaching in Massachusetts.

Education 62. 
Principles of Guidance.
This course introduces the future teacher to the area of guidance in the schools. It gives the student an acquaintance with the various subdivisions of guidance, such as counseling, educational and occupational information, and group guidance. 
Three credit hours.

Education 65. (Formerly Education 14) 
History of Education in the U. S.
A study of the history of American education, including higher education, from the mid-seventeenth century to the present. 
Three credit hours.

Education 67. 
Educational Psychology.
The student is introduced to many of the relationships existing between psychology and education. The nature of the learner, the teaching-learning process, and the role of the teacher in the widest development of the child, are studied. 
Three credit hours.

Education 68. 
Philosophy of Education.
This course acquaints the student with the thinking of Aristotle, Augustine, Aquinas, Dewey and Maritain. 
Three credit hours.

Education 72. 
Student Teaching.
A strictly supervised program, for selected students, of practice teaching and observation in a public secondary school. 
Six credit hours.

Education 75. 
Principles of Secondary School Education.
The principal stress of this course is on general methods of teaching and curriculum planning. 
Three credit hours.

Education 76. (Formerly Education 22) 
Tests and Measurements.
A study of the tests and evaluation devices used by schools and counseling agencies. Administration, use, and testing theory are discussed. 
Three credit hours.
Courses of Instruction

DEPARTMENT OF

English and Fine Arts

Professors: Bean, Connors, Cummings, Drumm, Gallagher, McCann
Associate Professors: Grace (Chairman), Buckley, E. F. Callahan, Healy
Assistant Professors: L. J. McCarthy (Assistant Chairman), Dailey, Edmunds, Madden, Scannell
Instructors: Dorenkamp, Fortuna, Goodin, Lewis, P. McGrady, Skelly, Wilson
Lecturers: Mirliani, Reardon

The English courses in the first two years, required of all undergraduates, combine analysis of various forms of literature with composition for the purpose both of developing the ability to read with comprehension and of improving the writing and speaking skill of the student. For those with deficiencies in the background necessary for this kind of work, a brief program in basic expression is provided at the beginning of Freshman year.

The English course for majors, either A.B. or B.S., offers a variety of authors, periods, and forms of literature so that the student may choose a sequence of courses fitted to his development and future needs, whether in graduate school, law, business or some other field. The emphasis in all the courses is on the development of critical judgment grounded in sound historical understanding. Two term papers in each of the Junior and Senior years will be required of all majors.

In addition to the regular sequence of courses, for Honors students and those interested in graduate studies, a series of seminars and tutorials is available by arrangement with the Chairman of the Department. This program allows the superior student to work more independently and probe more deeply into problems than he would ordinarily be required to do.

English 11, 12.
Introduction to Literature.

An introductory course to the main genres and periods of English literature, prose and poetry, with the exception of the epic and drama. Composition is a concomitant and essential part of the course.

Six credit hours.

English 15, 16.1
Advanced Placement Rhetoric Seminar.

A seminar in Rhetorical approaches to literature offered in lieu of the two year English requirement for advanced placement students. Admission is open to students who have achieved high scores on the Advanced Placement Examination and promising students of advanced background.

Six credit hours.

English 17, 18.1
Satire and Sentimentalism in the 18th Century.

A study of the verse essays and satires of Dryden and Pope and the prose of Addison, Steele, and Swift. The second semester will investigate the development of the novel in the 18th century from Defoe

1 Special Studies Program. Cf. p. 58.
to Sterne, including the works of Richardson, Fielding, Goldsmith, Johnson, and Smollet.

Six credit hours.

English 19, 20.1
The Drama: Problems and Explanations.
A seminar inquiring into the nature of tragedy and comedy, and the tragic and comic experience. Six credit hours.

English 21, 22.
Rhetorical Analysis.
A study of the principles of classical rhetoric and the rhetorical analysis of essays and speeches, satire, epic and drama. Advanced composition and oral delivery is an integral part of the course.

Six credit hours.

English 27, 28.
Classics in Translation.
The objective of this course is the attainment of a reasonable understanding and appraisal of Classical literature through the application of Classical theories of literary art to the following works: Homer, The Iliad; Euripides, Medea, Alcestis; Sophocles, Oedipus the King, Antigone; Aeschylus, Agamemnon, Prometheus Bound; Aristophanes, The Frogs; selections from the histories of Herodotus, Thucydides, Xenophon; Aristotle, The Poetics; Demetrius, On Style; Longinus, On the Sublime; Plato, The Apology of Socrates, The Crito, The Phaedo; Vergil, The Aeneid; Plautus, The Haunted House, The Menadchmi, The Rope; Terence, Phormio, The Woman of Andros; selections from the histories of Polybius, Livy, Sallust, Suetonius, Tacitus; Horace, The Art of Poetry; the Odes; Quintilian, On Education. (This course is given by the Classics Department.) Six credit hours.

English 41.
Anglo-Saxon Literature.
A survey of the writings in England between the seventh and the eleventh centuries; beginning with the Anglo-Latins, and progressing through the popular, courtly, religious, and heroic traditions in poetry. Emphasis is given to the poetic forms and especially to the heroic work, Beowulf. The literature is read in translations, but provision is made for students with a reading knowledge of Anglo-Saxon.

Three credit hours.

1 Special Studies Program. Cf. p. 58.
Paradise Lost, Paradise Regained and Samson Agonistes. Certain prose pamphlets are read either in their entirety or in selections. Three credit hours.

English 65.
Dryden, Swift and Pope.
While emphasizing the work of Dryden, Swift and Pope, this course (which omits the novel) also includes selections from Samuel Butler, Pepys, Rochester, Prior, Defoe, Steele, Addison, Shaftesbury, Mandeville, Gay, Thomson, Young, Blair and Shenstone. Three credit hours.

English 66.
Johnson and the later Eighteenth Century.
This course (which omits the novel) acquaints the student with Collins, Gray, Boswell, Johnson, Christopher Smart, Macpherson, Churchill, Walpole, Goldsmith, Sheridan, Beattie, Chatterton, Cowper, Burns, Crabbe, Burke, Paine and Blake. Three credit hours.

English 71.
Poetry of the Nineteenth Century, 1798-1832.
The general characteristics of the romantic movement. Wordsworth, Coleridge, Byron, Shelly, Keats. Three credit hours.

English 74.
The English Novel in the Eighteenth and Nineteenth Century.
A survey of the novel from Richardson and Fielding to the end of the nineteenth century. Three credit hours.

English 75.
Prose of the Nineteenth Century.
A study of the prose writings (excluding The Novel) of the Romantic and Victorian periods. Three credit hours.

English 76.
Poetry of the Victorian Period.
A survey of poetry from Tennyson and Browning to the end of the 19th Century. Three credit hours.

English 81.
British and American Drama.
The purpose of this course is to survey the developments in modern drama in English since the dramatic revival of 1890. It will consist of background lectures and careful examination and discussion of the texts of representative plays of the movement. Three credit hours.

English 82.
Modern British Literature.
A survey of the major British poets and novelists since 1914. Concentration will be on the works of Yeats, Auden, D. H. Lawrence, Joyce, Aldous Huxley, and the new generation of writers since the close of World War II. Three Credit Hours.

English 83.
American Literature in the 19th Century.
The purpose of this course is to acquaint the student with the major figures of 19th Century American Literature. The content of the course accordingly deals with Emerson, Thoreau, Hawthorne, Melville, Poe, Emily Dickenson, Henry James. Three credit hours.

English 84.
American Literature since 1900.
This is a continuation of English 83. The purpose of the course is to acquaint the student with the American novel as form. The content moves from Howells to Faulkner. Three credit hours.

English 91, 92.
History of the English Language.
A chronological study of English as a linguistic phenomenon. The first semester introduces the student to the language in its earlier stages, and includes a basic course in phonetics. The second semester completes the historical analysis and handles contemporary linguistic principles and problems in some detail. The two semesters must be taken as a unit. Six credit hours.

English 93.
Introduction to Criticism.
The purpose of the course is to read the major critical texts of English Literature. The content moves from Sidney to T. S. Eliot. Three credit hours.

English 96.
Seminar, Bibliography and Method.
For Seniors only.

English 99.
Honors reading.
COURSES IN FINE ARTS

Fine Arts 51, Art Appreciation and History I.


Fine Arts 53, Art Appreciation and History III.


Fine Arts 61, 62.
Appreciation of Music.

A general cultural course, in lecture form, tracing the development of music from early civilization to modern times, studied through history and analysis. This course is designed specifically to give the lay-musician and music-lover a cultural background with which to enjoy, understand and appreciate music in its many forms and phases. Six credit hours.

Fine Arts 65, 66.
Harmony.

An introduction to harmony; a study in the construction and uses of chords; elementary composition and a background for instrumentation and arranging; a cultural course to aid in the harmonic analysis of music. Six credit hours.

Fine Arts 71, Studio Painting and Drawing I.

An introduction to the methods of creative expression with emphasis on the techniques of pictorial organization. Perspective, light and shade, line, form, and color are applied to drawing and painting projects from still-life, landscape and imagination. These are developed in the basic techniques including pencil, pen and ink, charcoal, pastel, and oil painting. Three credit hours.

Fine Arts 72, Studio Painting and Drawing II.

Continues the development of creative expression and sound craftsmanship in the basic techniques. Extensive emphasis is placed on figure drawing, anatomical research, and portrait painting. Compositional elements, color dynamics and design factors are stressed, especially in relation to contemporary art expression. Previous art training or experience are not a requirement for Fine Arts 71 and 72. Three credit hours.

Fine Arts 73, Studio Painting and Drawing III.

An intermediate course in creative art which stresses the major modes of expression and techniques. Emphasis is placed on the complex and evolving dynamics in creative design, especially as it applies to large scale figure composition, abstract expressionism, non-objectivism, and the functioning of form and color symbols in art expression.

Prerequisite: Fine Arts 71, 72, or equivalent. Three credit hours.

Fine Arts 74, Studio Painting and Drawing IV.

A continuation of the study of essential pictorial compositional factors with added emphasis on method, the psychological and physical impact of color and form, and the development of personal style. Experience in three-dimensional media and practical experiments with some of the rarer techniques such as encaustic, egg tempera, serigraph, etc., are required.

Prerequisite: Fine Arts 71, 72, or equivalent. Three credit hours.
Courses of Instruction

DEPARTMENT OF

History and Political Science

Professors: Higgins (Chairman), Corcoran, Grattan, G. A. King, Lucey
Associate Professors: Kinsella, O. McKenna, Schiff
Assistant Professors: Glavin, Kealey, Moutafakis
Instructors: Anderson, J. Flynn, Wall
Visiting Professor: Van Valkenburg

HISTORY COURSES

History is one of the great traditional areas of intellectual concern. It deals with human nature, with what man has thought and said and done, with the persistent problems of human existence, with the totality of man's experience in the past. The aim of history is to give an account of "how things actually happened." The process of discovering the facts, of tracing the connection between events, of uncovering the influences and motive behind past action, of recording the causal relations and development of socially significant past human activities is the study of history. It sweeps back through the centuries to Herodotus "the Father of History." Cicero called history the life of man's memory, and he emphasized that "not to know what took place before you were born is to remain forever a child." In the same vein, in our modern age, it has been said that not to know history is to be condemned to repeat the errors of the past.

The soul of history is truth. As Leo XIII stated: "It is the first law of history that it dare say nothing which is false nor fear to utter anything that is true, in order that there may be no suspicion either of partiality or of hostility in the writer." With this noble ideal impressed upon his mind, it is calculated that the study of history will enable the student to know the past and to interpret its true significance.

History 11.
European History from Christian Antiquity to 900.

An analytical study of the political, social, economic and cultural history of Europe from the beginning of the Christian era through the reign of Arnulf, Carolingian Emperor of Germany Three credit hours.

History 12.
European History from 900 to 1648.

A continuation of History 11 to the Peace of Westphalia. Three credit hours.

History 17, 18.
The Elements of Western Civilization: Roman Law.

A seminar dealing with the development of Roman law, its qualities and codification up to the time of Justinian, and its impact upon both the middle ages and modern times. Six credit hours.

Special Studies Program. Cf. p. 58.
from the end of the Thirty Years War to the era of Napoleon. Three credit hours.

History 22.
The Political and Cultural History of Europe Since 1815.
A continuation of History 21 to the era of the Cold War. Three credit hours.

History 25. (41)
A Survey of Western Civilization from Christian Antiquity to 1648.
A broad survey of the development of Western Civilization in its more notable movements and institutions to the termination of the Thirty Years War. Three credit hours.

History 26. (42)
A survey of Western Civilization Since 1648.
A continuance of History 25 to the present. Three credit hours.

History 43.
Historical Methodology.
The science of history and its relation to the social sciences; method of historical research and criticism; historians and historical writings. Required of all students majoring in History. Three credit hours.

History 46.
The United States from the Colonial Period to the Civil War.
A study of the political, social, economic, and cultural history of the United States from the colonial period to the end of the Civil War.
Lectures, assigned readings, reports, term paper. Required of all students majoring in History. Three credit hours.

History 47.
The United States Since the Civil War.
A study of the political, social, economic, and cultural history of the United States since the Civil War.
Lectures, assigned readings, reports, term paper. Required of all students majoring in History. Three credit hours.

History 48.
The United States in the Twentieth Century.
Some of the salient political, social, economic and religious problems and trends of the United States are selected for investigation and appraisal. Three credit hours.

History 51, 52.
Diplomatic History of the United States.
A study of the foreign relations and policies of the United States, with regard to Europe, Latin America, Canada, and the Far East. Six credit hours.

History 55.
Economic History of the United States.
This course is offered by the Department of Economics. (Not offered 1960-1962) Three credit hours.

History 61.
A one semester upper division course. Weekly discussion on reading assignments. This course emphasizes religious, political and economic factors from the beginning of the reign of Henry VII to the end of the reign of Elizabeth I. Three credit hours.

History 62.
Stuart England: 1603-1715.
A one semester upper division course. Frequent discussion of reading assignments. This course emphasizes religious, political and intellectual factors from the beginning of the reign of James I to the end of the reign of Anne. Three credit hours.

History 63, 64.
The Renaissance of the Twelfth Century, 1050-1200.
A study of how two conceptions (the changing values of feudalism and the growth of a reformed Papacy) combined to create a new Medieval World based on increasingly strong monarchies (England and France) and heightened intellectual speculation (St. Anselm, the rise of the universities). Rome, the Empire, England, and France are the focal points in this study which will stress source readings and independent investigations. Six credit hours.

History 65, 66.
Europe in the Nineteenth Century.
Napoleonic Era; Congress of Vienna; Political and Social Revolutions; Unification of Germany and Italy; Russia; the British Empire; Social Theories. Six credit hours.

History 67, 68.
Europe since 1914.
The causes of World War I; the Versailles Treaty; the League of Nations; Russia and Bolshevism; Nazism; Fascism; the Far Eastern Situation; the Spanish War of 1936; World War II. Six credit hours.
History 71, 72.
History of Latin America.

A study of colonial and national histories of Latin American Republics.
Six credit hours.

History 73, 74.
The Far East in Modern Times.

A survey of the political, social and economic history of the Far East: China, Japan, Philippine Islands, India, Pakistan, Burma, Indo-China, Malaya and Indonesia.
Six credit hours.

History 77, 78.
History of Russia.

A study of the economic, social, religious, political and cultural history of the Russian people from the period of ancient Kiev to the present.
Six credit hours.

History 79, 80.
History of Africa.

A survey of the political, social and economic history of the nations of Africa.
Six credit hours.

History 81.
Reading Course in History and Government.

Reading of a selected list of documentary and authoritative works under direction with individual reports and discussion. Students enrolled in this course must receive approval of the Department. Three credit hours.

History 83.
Pro-Seminar in History.

Research with individual reports and class discussion on the subject of the term paper or any selected topic. Students enrolled in this course must receive approval of the Department. Three credit hours.

POLITICAL SCIENCE COURSES

For centuries Government was regarded as a branch of moral philosophy or ethics, but in the nineteenth century it became a separate discipline. It stretches back to two of the world's great thinkers, Plato and Aristotle. In his classic work "The Republic," Plato considered the problem of justice and injustice and its effects upon the individual and society. Aristotle collected and studied the constitutions of the city states of his time, and wrote a classic treatise on the science and art of Government, the "Politics." Aristotle, and later St. Thomas Aquinas, considered political science to be the master science since it integrated all other sciences concerned with the community.

Political Science is the systematic study of the political aspects of man's nature and of the state. It studies human nature in its behaviour as it is affected by changing political processes and situations, the motivation and action of individual leaders, public officials, social and economic groups, public opinion, the process by which public policy is fashioned and patterns of political activity develop. It investigates the nature and purpose of the state, the principles on which it rests, the justification of political authority, the struggle for control of the state, problems of legislation and administration, the relationship between man and his government, the role of the state in achieving the "good life," the legal aspects of political phenomena, the organization, practice and principles underlying court systems, the nature and development of the great, human freedoms, the governmental procedures of different countries, and the relations of states in the family of nations.

The study of Government is calculated to enable the student to know the political ideas of the great thinkers down through the ages, and the forces behind the control of the state.
Political Science 11, 12.
An Introductory Course in Political Science.

A study of the nature and functions of the State; types of government; development and essentials of representative government; constitutional government; problems of administration. Required for a major in political science. Six credit hours.

Political Science 41, 42.
American Government

An examination of the origin of the federal republic and the content of the Constitution of the United States; national, state and municipal government; modern problems. Required for a major in political science. Six credit hours.

Political Science 45, 46.
International Relations.

A study of the basic factors in international relations; the multi-state system; power factors; geography, population, natural resources; economic development and system; political system; foreign policy; diplomacy; atomic problems; international organizations; the United Nations, achievements and problems; World Government. Six credit hours.

Political Science 51, 52.
Diplomatic History of the United States.

A description of this course will be found under History 51, 52. Six credit hours.

Political Science 55.

Origin and development of the parliamentary system and the common law. Three credit hours.

Political Science 57, 58.
History of Political Thought.

An examination of the political ideas and theories of the pre-Christian writers, the early Christian era, of the scholastics, moderns and contemporaries. Six credit hours.

Political Science 61.
American Political Parties.

The function of political parties and the history of political parties in the United States. Three credit hours.

Political Science 62.
Public Administration.

A study of the theory, organization and problems of public administration. Three credit hours.

Political Science 65, 66.
Constitutional History of the United States.

An examination of the origin and content of the Constitution, of the nature of the federal republic and the presidential system, of the development of the Constitution and of current constitutional problems. Prerequisite: PS 41, 42. Six credit hours.

Political Science 71.
The U.S.S.R.

A study of Soviet Russia offered by the Department of Sociology in the course listed under Sociology 71. Three credit hours.

Political Science 73, 74.
Comparative Modern Governments.

A study and comparison of modern governments. Six credit hours.

Political Science 75, 76.
Government in Economic Life.

A study of the philosophical basis and salient problems of governmental business relationship. This course is offered by the Department of Economics under Economics 75, 76. Six credit hours.

Political Science 83.
Pro-Seminar in Political Science.

Research with individual reports and class discussion on the subject of the term paper or any selected topic. Students enrolled in this course must receive approval of the Department. Three credit hours.
Courses of Instruction

DEPARTMENT OF

Mathematics

Professors: McBrien (Chairman), Nestor
Associate Professors: Harnett, Shanahan
Assistant Professors: Dewey¹, J. MacDonnell, J. R. McCarthy
Instructor: Perkins

The program in mathematics is based upon the awareness of the increasing contribution of mathematics to contemporary culture as well as its key role in scientific and humanistic education. Because mathematics has undergone basic changes in content as well as in point of view, there is strong emphasis in all courses on a synthesis of old and new concepts. This approach invokes the interest of the sincere student and quickly brings him to a better understanding and use of mathematics.

Seminars, individual discussion and research projects are an integral part of the department program. Mathematics majors have the use of a Common Room for informal discussion with staff members and fellow-students. The O'Callahan Science Library has a fine selection of classical and contemporary mathematics books, monographs and journals available to all students in the college.

Mathematics 11, 12.
Principles of Analysis I, II.

For the benefit of students taking a concurrent first course in physics there is at the outset of Mathematics 11, 12 a four weeks intuitive introduction to concepts and drill in the differential and integral calculus. The course then goes on to cover the following topics: the basic algebra of sets, subsets of the plane and coordinate geometry, functions and the algebra of functions, intuitive construction of the real and complex numbers, algebraic systems—groups, rings, fields and vector spaces. In the second term the following topics are considered: real sequences and limits using the neighborhood topology of the line, continuity and differentiability in the space of real functions, anti-differentiation of elementary functions; the concept of an area function, content and measure in the plane, the Riemann integral and application to elementary functions, the role of linear operators in the calculus. Six credit hours.

Mathematics 15.
Introductory Analysis.

An elementary introduction to analysis for students majoring in the biological and social sciences. Topics covered include fundamental notions on sets and the number system. Cartesian products and the real plane, subsets of the plane, functions, neighborhood topology of the real line, limits and continuity, the derivative function and the definite integral, applications to the biological and social sciences. Three credit hours.

Mathematics 16.
Introduction to Finite Mathematics.

An introduction to finite mathematics for students majoring in the biological and social sciences and business administration. Topics covered include logical relations and truth tables, probability measure, the binomial distribution and normal law, Markov chains, vectors and matrices, linear programming, applications to the biological and social sciences. Three credit hours.

¹ On leave (1962-63).
Mathematics 17, 18.¹
Problems of Algebraic Structure and Elementary Analysis.

The course first considers those topics of algebraic structure necessary for a careful introduction to analysis: the concepts of set and function; the algebra of sets and of functions; and formal algebraic systems—groups, rings, fields, vector spaces. An informal development of the number systems is also included.

Real sequences, real functions, continuous real functions, differentiable real functions, and integrable real functions are the topics considered in the elementary analysis. The basic tool here is the neighborhood topology of the line.

The seminar covers the material of Mathematics 11 and 12, but in a manner which allows the student, working with the professor, to probe more deeply into topics which especially interest him.  

Six Credit Hours.

Mathematics 21, 22.
Principles of Analysis III, IV.

This course continues the study of analysis and uses the algebraic and topological ideas developed in the freshman year. Topics covered in the first term include the neighborhood topology of $\mathbb{E}^n$, functions from $\mathbb{E}^m$ to $\mathbb{E}^n$, the partial derivative function with applications to extrema, the differential function, volume as a set function, multiple integrals of functions from $\mathbb{E}^n$ into the real numbers, line integrals and some elementary combinatorial topology. During the second semester a formal development of linear differential equations is taken up including some numerical solutions and the use of functions from the complex numbers into the complex numbers. For majors in physics and chemistry, special attention will be given to such basic equations in mathematical physics as Legendre and Bessel Equations.  
Six credit hours.

Mathematics 41, 42.
Advanced Calculus I, II.

The purpose of this course is to introduce the student to analysis in general and especially to the study of continuous transformations, vector analysis, and complex variables. The content of the course includes the following topics: brief review of the real and complex number systems, with extension of the trigonometric and exponential functions to the complex numbers; topology of $\mathbb{E}^n$, Heine-Borel theorem and continuous transformations; a brief treatment of linear transformations leading to the concept of differentials; the chain rule for differentiable transformations; the gradient of a real valued function; Jacobians and the implicit function theorem; Riemann-Stieltjes integration and multiple integrals; transformation of integrals; line integrals and Green's theorem; theorems of Gauss and Stokes; Cauchy integral theorem, Laurent expansions and residues. Prerequisite: Math. 11, 12, 21, 22.  
Six credit hours.

Mathematics 45, 46.
Introduction To Algebraic Topology, I, II.

The following topics are studied: basic point set topology, including the concepts of compactness and connectedness; the classification problem for topological spaces; one- and two-dimensional manifolds; closed surfaces, Euler characteristic, connectivity numbers; homology and homotopy of curves on a surface; the singular homotopy theory with proofs of theorems on exactness, homotopy and excision; computation of singular groups of certain spaces with application to classification of surfaces; axioms for homology theory; polyhedra and the simplicial homology groups; cohomology groups; homotopy theory.  
Six credit hours.

Mathematics 51, 52.
Introduction to Abstract Algebra I, II.

The purpose of this course is to provide an introduction to basic algebraic systems for students who have had Mathematics 21, 22 as a background. Topics covered in the first semester include semi-groups and groups, rings and ideals, fields and field extensions, factorization theory, groups with operators and some lattice theory. Topics covered in the second semester include a more detailed study of finite and infinite dimensional vector spaces including function spaces, linear transformations and matrix algebra, dual spaces. Application to other branches of mathematics and to science are used to demonstrate the wide utility of the results.  
Six credit hours.

¹ Special Studies Program. Cf. p. 58.
Mathematics 53, 54.
Introduction to General Topology and Measure Theory.

Part I covers elementary general topology and includes these topics: sets and mappings of sets considered generally, indexed sets, De Morgan’s theorems; the real line—Cauchy sequences, open sets, connected sets, limit points and closed sets, closed and bounded sets, continuous functions and properties of continuous functions; topological spaces—the T-spaces, metric spaces, elementary properties of topological and metric spaces, mappings and subspaces, connected sets; metric spaces—elementary properties of metrics and metric spaces, local connectivity and the introduction of an M metric, second countable spaces, the Euclidean spaces. Part II covers Lebesgue measure in E^n and furnishes a brief introduction to abstract measure theory. The general topics are: Jordan content in E^n; Lebesgue measure in E^n; the Riemann integral; the Lebesgue integral; the relationship between integration and differentiation for functions from E^1 into E^1; abstract measure and integration. Prerequisite: 11, 12, 21, 22.

Six credit hours.

Mathematics 61, 62.
Special Topics I, II.

Special topics involving extensive reading in mathematical literature. The subject matter may vary to suit the requirements of the student. This course is intended for students who will have completed, with high honors, four complete upper division courses in mathematics, or who participate in an undergraduate research program sponsored by the department.

Six credit hours.

Mathematics 65, 66.
Honors Seminar.

The chief aim of the mathematics seminar is to provide an opportunity for individual and group investigation of topics not covered in course work by the mathematics majors. The method employed in the seminar is active participation on the part of the students. The general topic of discussion varies from year to year. For the year 1961–62: Topics in Algebra.

Six credit hours.
Courses of Instruction

Military Science

A. Department of Air Science

*Professor: Lieutenant Colonel Grady (Chairman)*
*Instructors: Captain Carey, Captain Kehoe, Captain Morrill*

The mission of the Air Force Reserve Officers' Training Corps is to select and prepare students, through a permanent program of instruction at civilian educational institutions, to serve as officers in the Regular and Reserve components of the United States Air Force.

The College of the Holy Cross is one of more than one hundred and seventy Colleges and Universities throughout the country which have Air Force ROTC Units.

The program of instruction of the Air Force ROTC at Holy Cross is divided into two courses—the Basic Course, normally completed during the Freshman and Sophomore years, and the Advanced Course—normally completed during the Junior and Senior years. During the Basic Course, the Air Force furnishes the AFROTC student with the distinctive Air Force blue uniform. The college is allotted the sum of one hundred dollars per student for the purchase of uniforms for advanced course students. Text books required are furnished by the Air Force. In addition the AFROTC advanced student is entitled to commutation of subsistence which amounts to approximately twenty-seven dollars per month, and between his Junior and Senior year he attends a four to six week summer camp, for which he is paid at the rate of seventy-five dollars a month.

Advanced cadets scheduled for pilot training after commissioning will be given a flight training course during their Senior year. This flight instruction program is designed to determine a cadet's aptitude for flying. This course may lead to certification by the Federal Aviation Agency for a private pilot's license.

Students who meet certain qualifications and who are selected by a board of officers, military and institutional, are granted a deferment from induction into the service under the Selective Service Act, provided they sign a deferment agreement, in which they agree among other things, to serve on active duty for a period of time as prescribed by the Secretary of Air Force.

ELIGIBILITY REQUIREMENTS

A candidate for enrollment must be a citizen of the United States between the ages of 14 and 23 years at the time of enrollment, be of high moral character and take such physical examinations as may be prescribed by proper authority and/or present a certificate of health from a doctor.
AS 11.
Foundations of Air Power—I.
A general survey of air power designed to provide the student with an understanding of the elements of air power and basic aeronautical science. This course includes Potentials of Air Power, Air Vehicles and Principles of Flight, Military Instruments of National Security and Professional Opportunities in the United States Air Force. Two lectures. One hour leadership training laboratory. Two credit hours.

AS 22.
Foundations of Air Power—II.
Encompasses a broad scope of specialized information concerning the organization, mission and functions of the United States Air Force to include: The Evolution of Aerial Warfare, Elements of Aerial Warfare, United States Air Force Operations in the employment of Air Forces and Space Problems and Possibilities. Two lectures. One hour leadership training laboratory. Two credit hours.

AS 41, 42.
Air Force Officer Development.
A year-long treatment of the knowledge and skills required of a junior officer in the Air Force with special emphasis on staff duties and leadership. Includes Air Force Leadership doctrine, staff organization and functions, communicating, instructing, problem solving techniques, leadership principles and practices, and the military justice system. Eight credit hours.

AS 51, 52.
Global Relations.
A study designed to provide a depth of understanding required of the Air Force officer in international relations and world political geography.
This course also prepares the cadet for transition to military life as a junior officer and exposes him to the basic skills of navigation and weather interpretations. Four lectures: One hour Leadership Training Laboratory. Eight credit hours.

B. Department of Naval Science

Professor: Captain Rooney (Chairman)
Associate Professor: Commander Klein (Executive Officer)
Instructions: Major Young, Lieutenant Commander Hemnick, Lieutenant O'Brien, Lieutenant Watts, Lieutenant (jg) Fitzpatrick

The Department of Naval Science, a recognized department of instruction within the college, has as its purpose the providing of instruction in professional subjects dealing with the Navy and Marine Corps, which, when added to the other academic instruction provided by the College, will meet the purpose for which the Naval Reserve Officers Training Corps was established.

The purpose of the Naval Reserve Officers Training Corps, (The Corps consists of the NROTC Units at fifty-two colleges and universities throughout the United States) is to provide a steady supply of well-educated junior officers for the Navy and Marine Corps, and to build up a reserve of trained officers who will be ready to serve the country at a moment's notice in a national emergency. Students enrolled in the NROTC are of two categories—Regular and Contract. All procedures, benefits and requirements described hereinafter apply to both categories of NROTC students unless specifically indicated as pertaining to only one of the two types.

MILITARY STATUS
NROTC students wear the uniform only on such occasions as prescribed by the Professor of Naval Science. Normally, this will be at drills, ceremonies, and on cruises.
In addition to the ordinary requirements of gentlemanly conduct, they are subject to naval discipline and must conduct themselves at all times in a military manner when under naval jurisdiction, that is, when attending naval science classes, drills and exercises, and during summer training periods.

With the exception of the above described instances, NROTC students are in the same category as other students of the College.

**STATUS ON GRADUATION**

Contract students: After completion of their academic requirements for a baccalaureate degree and the four years of Naval requirements, which include the summer training, contract students are commissioned as ensigns in the U.S. Naval Reserve or second lieutenants in the U.S. Marine Corps Reserve. They are eligible for call to active duty as indicated below under “Draft Deferment.”

Regular students: Upon graduation, regular students are commissioned as ensigns in the U.S. Navy or second lieutenants in the U.S. Marine Corps. They are normally required to serve on active duty for a period of four years. During this period they may request to remain on active duty as career officers. If they do not so request, or if not selected, they are released to the appropriate status in the Reserve.

**SUMMER TRAINING**

Regular students: All regular students are required to take two summer cruises and one summer period of aviation-amphibious indoctrination, usually of eight weeks' duration each. The cruises are made on board modern warships. The aviation indoctrination is usually conducted at Corpus Christi, Texas, and the amphibious indoctrination is usually conducted at Little Creek, Virginia.

Contract students: Contract students are required to take only one summer cruise during the summer between their junior and senior years, the cruise being of approximately six weeks' duration.

Travel expenses for both regular and contract students from the College to the summer training site and return are furnished by the government. In addition, all students receive active duty pay during summer training amounting to approximately $75.00 per month.

**EMOLUMENTS**

Regular students: For regular students the cost of tuition, fees, and textbooks is paid by the government. Necessary uniforms are provided and students receive retainer pay at the rate of $600 per year.

Contract students: Contract students receive no emoluments during the first two years in the program. During the last two years they receive a subsistence allowance which amounts to approximately $27.00 a month. They are issued the necessary uniforms and Naval Science textbooks at no expense.
ELIGIBILITY REQUIREMENTS

A candidate for the NROTC must:

1. Be a male citizen of the United States.

2. At the time of his enrollment, if a minor, have the consent of his parent or guardian.

3. Be not less than seventeen nor more than twenty-one years of age on July 1 of the year in which he enters the program. (Contract students may be enrolled if sixteen years of age on July 1 of the year in which he enters the program.)

4. Gain his own admittance to the College.

5. Agree to remain unmarried until commissioned.

6. Be physically qualified, in accordance with the requirements for the U.S. Naval Academy, except that the vision requirements for Contract students are 20/40 each eye, corrected by lenses to 20/20.

7. If a contract student, he signs an agreement to accept a commission, if tendered, as an ensign, U.S. Naval Reserve, or second lieutenant, U.S. Marine Corps Reserve, and serves two years on active duty upon completion of College training, if called by the Secretary of the Navy.

8. If a regular student, he signs an agreement to accept a commission, if tendered, to retain this commission for a period of six years and to serve not less than four years on active duty as an officer, if called by the Secretary of the Navy.

SPECIAL PROCEDURES

Contract students are enrolled by the Professor of Naval Science upon their own application and are subject to selection and physical examination at the College within a limited quota as assigned by the Navy Department. These students are taken primarily from the entering freshman class at the beginning of the fall semester.

Inasmuch as the selection of contract students is completed during the first week of the fall semester and in view of the fact that the contract quota is limited, all eligible students who desire to be considered for the NROTC program should apply prior to the first day of classes in the fall. An application is not binding, and, even after enrollment in the program, a contract student may withdraw from the program, without prejudice, upon his own request at any time within the first two years.

However, enrollment is normally for four years and there is no change from "basic" to "advanced" status when entering the junior year of college.

Regular students enter the NROTC through a nation-wide test and selection system conducted by the Naval Examining Selection, Science Research Associates, 104 Pearl Street, McHenry, Illinois. The competitive examination is conducted in the late fall of the year, approximately nine months before enrollment of the applicant.

Transfer from contract to regular status; Contract NROTC students may compete for regular status and if selected will be enrolled as regular students without loss of standing.
THE NAVAL SCIENCE STUDENT

Disqualified NROTC applicants may take the Naval Science course for the purpose of acquiring advanced standing to be used when applying for NROTC enrollment at a later date in the event of removal of the disqualification. Also, the Naval Science course may be taken by those students who have no interest in NROTC enrollment, but who wish the instruction. Students in either of the above categories are known as Naval Science Students.

Naval Science students receive credit for satisfactory completion of the Naval Science course, but have no official status in the NROTC Program, and receive none of the advantages of the Regular and Contract NROTC students other than the training and background gained. This training would prove to be beneficial should the graduated Naval Science student apply for a commission through sources normally available to college graduates other than the NROTC Program.

DRAFT DEFERMENT

A student enrolled in the Naval ROTC will be deferred from the draft (Selective Service of 1948 and Universal Military Training Act of 1951) if he satisfactorily pursues the Naval ROTC course for four full years, including the summer training period applicable to his status as contract or regular student.

A contract student who is disenrolled loses his draft deferment.

A regular student who is disenrolled will be transferred to enlisted status in the U.S. Naval Reserve or U.S. Marine Corps Reserve.

The Naval Science student is not deferred from induction for service under the Selective Service Regulations.

CURRICULA

General: In order to obtain a commission either in the U.S. Navy, U.S. Naval Reserve, U.S. Marine Corps, or U.S. Marine Corps Reserve, students are required to obtain a baccalaureate degree and complete twenty-four semester hours in the Department of Naval Science.

The following courses may not be taken by a regular student:

Pre-Medicine, Pre-Dental, and Pre-Theological. A contract student may take such courses but it is to be remembered that all NROTC graduates usually go on immediate active duty upon graduation, and so additional training for one of those professions will be delayed until completion of the period of obligated naval service.

During each semester every student is required to attend two laboratory periods of one hour's duration each week. He is also required to complete mathematics through trigonometry, or a semester of college mathematics, by the end of his sophomore year. In addition, each regular student must complete one year of college physics. Two separate curricula in naval science subjects are offered in the junior and senior year, leading to commissions in the Line of the Navy, and the Marine Corps.
NS 11.
Sea Power and Orientation.
A study of the Department of Defense, the basic customs and traditions of the Navy, the present-day Navy and the student's part in it. Three credit hours.

NS 12.
Sea Power and Orientation
A study of the influence of Sea Power upon global history. The stimulation of a living interest in the Navy and an appreciation of the contributions of Sea Power to the past, present, and future progress of the United States. Three credit hours.

NS 21.
Naval Weapons.
A study of the fundamentals of naval weapons and weapons' systems, stressing basic principles and their application to the control of the seas. The following major areas are covered: Basic weapons delivery problems, basic sciences, basic gunnery, typical fire control systems, anti-submarine warfare, guided missiles, nuclear weapons, space technology and the employment of naval weapons; a realistic and practical coverage of the duties of a Gunnery Department officer including specific problems and solutions, responsibilities, and authority. Three credit hours.

NS 22.
General Psychology.
A study of the psychological nature of the individual and of groups, and the influences effecting human action and interpersonal relations. (This course will be taught by a member of the Department of Philosophy.) Three credit hours.

NS 41.
Naval Engineering.
A study of basic naval engineering, including main propulsion steam plants, diesel engines, and ship stability. Three credit hours.

NS 42.
Navigation.
A study of the theory and technique of surface navigation. Familiarization of the student to the extent that he will be able to assist intelligently the Navigator of a ship to conduct it safely by modern methods of navigation. A study of the fundamentals of naval tactics. Three credit hours.

NS 51.
Naval Operations.
A study of the responsibilities of naval officers in shipboard operations; such as relative movement, tactical communications and instructions, and rules of the nautical road. To afford a basic understanding of fleet communications and an introduction to electronic countermeasures. A study of the operational importance of the weather. Three credit hours.

NS 52.
Naval Administration.
A study of the general responsibilities of administration, discipline, and leadership, which the student must assume upon acceptance of a commission. Three credit hours.

Candidates for commission in the Marine Corps will be required to complete NS 11, 12, 21, and 22. In place of NS 41, 42, 51, and 52, they will take courses in Marine Corps subjects as follows:

NS 45.
Evolution of the Art of War.
An historical study of the evolution of warfare, including: Principles of War, Offensive Combat, Defensive Combat, and studies of warfare in specific eras. Three credit hours.

NS 46.
Evolution of the Art of War and Modern Basic Strategy and Tactics.
A continuation of the historical study of the evolution of warfare developing into a treatment of modern basic strategy and tactics. Three credit hours.

NS 55.
Amphibious Warfare, Part I.
A study of the development of amphibious warfare operations and their employment in World War II. Three credit hours.

NS 56.
Amphibious Warfare, Part II.
Leadership, and the Uniform Code of Military Justice.
A continuation of the study of amphibious warfare concentrating on tactics, equipment, and modern methods of employment. A study of the general responsibilities the student must assume when commissioned, in the fields of leadership, discipline, and naval justice. Three credit hours.
Courses of Instruction

DEPARTMENT OF
Modern Languages
and Literatures

Professors: Boursy, Bowen, FitzGerald, S. E. Flynn
Associate Professors: Desautels (Chairman), McNerney
Assistant Professors: Lowe, J. McKenna
Instructors: Baker, Bourcier, J. Burke, Daley, Kopp

The purpose of the study of modern languages in a college with liberal arts traditions is the gradual acquisition of proficiency in those languages. Language proficiency means ability in the four skills: understanding, speaking, reading and writing, as well as some familiarity with the culture and civilization of the country concerned. More precisely: a) The student should be able to understand an educated speaker talking at a normal rate of speed on subjects within the range of the student's experience. b) He should be able to express himself orally with a satisfactory accent on subjects within the range of his experience. c) He should be able to read without the aid of a dictionary prose of normal difficulty dealing with non-technical subjects. d) He should be able to put into writing with reasonable correctness his views on subjects within the range of his experience. These are the aims of the Modern Language Department at Holy Cross College. They coincide with those of the most reputable liberal arts colleges in the country as well as those of the Association of Modern Languages.

I. FRENCH

French 11, 12.
Elementary French.
The aim of this course is to teach the student to speak, read and write simple idiomatic French. Three hours weekly, and two periods of laboratory practice.
Six credit hours.

French 15B, 16B.
Lower-Intermediate French.
An intensive review of the elements of the French language, with readings from standard authors, to supplement 2 years of average secondary school preparation. Three hours weekly, and one period of laboratory practice.
Six credit hours.

French 15A, 16A.
Upper-Intermediate French.
A systematic review of the fundamentals of the language, with intensive and extensive reading of selected texts. Three hours weekly, with one period of laboratory practice. Prerequisite: French 12, or better than average score on the placement test.
Six credit hours.

French 21B, 22B.
Advanced French I.
Advanced composition with a survey of selected masterpieces from the Middle Ages to the twentieth century. Three hours weekly. Prerequisite: Lower-Intermediate French, 16B.
Six credit hours.
French 21A, 22A.
Advanced French I.

The aim of this course is to acquaint the student with the literary masterpieces of French literature from the Middle Ages to the end of the 17th century. Three hours weekly, with one period of laboratory practice. Prerequisite: Upper-Intermediate French, 16A, or outstanding performance on placement test. Six credit hours.

French 23, 26.
Advanced French II.

This course will acquaint the student with the social, philosophical and literary ideas of the 18th and 19th centuries. Three hours weekly. Prerequisite: Advanced French, 22A. Six credit hours.

French 35, 36.
Survey of French Literature.

The masters of French literature in a comprehensive survey. This course is mainly for students who have not had French 25, 26. Six credit hours.

French 43.
French Literature of the Middle Ages.

An introduction to epic and lyric poetry, as well as prose masterpieces. Three credit hours.

French 44.
The Sixteenth Century.

The major writers of this period: Rabelais, Ronsard, Montaigne, etc. Three credit hours.

French 45, 46.
The Age of Enlightenment.

Montesquieu, Diderot, Voltaire, Rousseau, etc. Six credit hours.

French 51.
A History of Romanticism.

Three credit hours.

French 53.
Seventeenth Century Prose and Poetry.

Selection from: Descartes, Pascal, Bossuet, LaBruyere, LaFontaine, etc. Three credit hours.

French 54.
The Classic Theatre.

Three credit hours.

French 56.
Voltaire and his Time.

Three credit hours.

French 71, 72.
Composition and Conversation.

The purpose of this course is to enable the student to achieve fluency in expression. Six credit hours.

French 73.
Nineteenth Century Novel.

The most significant novelists of the 19th Century will be studied: Hugo, Stendhal, Balzac, Flaubert, Zola, etc. Three credit hours.

French 74.
Nineteenth Century Poetry.

A study of the major poetic movements of this century. Three Credit Hours.

French 77.
Post-Classical Drama

An analysis of the theatre from the beginning of the eighteenth century. Three credit hours.

French 81.
The Theatre in the Twentieth Century.

Three credit hours.

French 82.
The Novel in the Twentieth Century.

Three credit hours.

French 83.
The Catholic Revival of the Twentieth Century.

Three credit hours.

French 85.
Marcel Proust and the Analytical Novel.

Three credit hours.

French 86.
Camus and his Generation.

Three credit hours.

French 91, 92.
Seminar.

Bibliography and Method. For senior students only. Three credit hours.
II. GERMAN

German 11, 12.
Elementary German.

A thorough study of inflections and of essential elementary syntax; drill in easy German composition and the acquisition of a working vocabulary. Three hours weekly, with two periods of laboratory practice.
Six credit hours.

German 15B, 16B.
Lower-Intermediate German.

An intensive review of the fundamentals of German, with readings from standard authors, to supplement 2 years of average secondary school preparation. Three hours weekly, with two periods of laboratory practice.
Six credit hours.

German 15A, 16A.
Upper-Intermediate German.

Thorough review of all essentials of grammar; drill in German composition; special study of the more difficult points of syntax; reading and translation of German texts with special attention to the grammatical constructions involved. Three hours weekly, with one period of laboratory practice. Prerequisite: German 12, or better than average score on the placement test.
Six credit hours.

German 21B, 22B.
Advanced German I.

A survey of selected modern German texts, with special attention given to the development of a large reading vocabulary. The course is largely conducted in German. Three hours weekly. Prerequisite: Lower-Intermediate German, 16B. Six credit hours.

German 21A, 22A.
Advanced German I.

Reading and study of both prose and poetry of the various literary movements, with special emphasis on modern authors. Three hours weekly, and one period of laboratory practice. Prerequisite: Upper-Intermediate German, 16A, or outstanding performance on placement test.
Six credit hours.

German 25.
Advanced German Composition (and Conversation).

The aim of this course is the acquisition of a facility in both oral and written expression. Special emphasis is given to idioms and to genuinely German stylistics. Weekly papers of some length are required.
Three credit hours.

German 41, 42.
German Literary History.

This is a background course and presents a general connected survey of the development of German culture and literature from its beginnings to today. For its earlier periods, particularly, it is accompanied by selected illustrative readings in modern German translations. Prerequisite: German 25.
Six credit hours.

German 45.
German Romanticism.

The place of Romanticism in European literature. Romanticism as a literary attitude, a philosophical position and a school. Readings in Schlegel, Novalis, Brentano, Tieck, Hoffman, Eichendorff and others.
Three credit hours.

German 48.
German Classicism.

The age of German Classicism is centered around the circle of Klopstock, Wieland, Lessing, Herder, Goethe, Schiller and Hoderlin. Variant readings from these authors. Students are expected to give written reports on selected works from these writers.
Three credit hours.

German 53.
The German Lyric.

Historical development of the lyric from Middle High German to modern with analysis and evaluation of such writers as Gryphius, Klopstock, Goethe, Schiller, Novalis, Eichendorff, Heine, Moerike and Georg.
Three credit hours.

German 54.
Schiller, Life and Works.

A study of Schiller's life. His status as a classicist. Extensive reading and analysis of his main dramas and of selections from his prose works.
Three credit hours.
German 56.
The German Drama.
A study of the German drama of the 18th and 19th Centuries.
Three credit hours.

German 57.
Goethe, Life and Works.
A study of Goethe as the dominating figure of German Classicism. His influence upon, and status in World Literature. Extensive readings from his works.
Three credit hours.

German 65, 66.
German Linguistics.
A thorough introduction to general linguistics. Beginning with phonology, the course presents a systematic and scientific study of German morphology with historical and comparative references.
Six credit hours.

German 73.
The German Novelle.
The Novelle as a genre. History, including foreign influences. Readings of selected works of such writers as Goethe, Kleist, Hoffman, Tieck, Keller, Meyer Hauptmann, Mann.
Three credit hours.

German 75, 76.
Modern German Literature.
A study of the various movements of German Literature and their relation to history from the Franco-Prussian War and World Wars I and II into our own day. A great amount of reading is required, together with papers in analysis of the variant trends.
Six credit hours.

III. ITALIAN

Italian 11, 12.
Elementary Italian.
This course aims to equip the student with a succinct and useful knowledge of the essentials of the Italian grammar, giving him the ability to read, write and speak idiomatic Italian, with daily drill in phonetics. Three hours weekly, with two periods of language laboratory.
Six credit hours.

Italian 15, 16.
Intermediate Italian.
A thorough review of Italian grammar is made through reading, composition, oral and aural practice. Three hours weekly, with one period of language laboratory.
Six credit hours.

IV. RUSSIAN

Russian 11, 12.
Elementary Russian.
A thorough study of the essentials of Russian grammar. Three hours weekly, with two periods of language laboratory.
Six credit hours.

Russian 15, 16.
Intermediate Russian.
Rapid review of the fundamentals of Russian, with study of the more difficult points of syntax, and with graded readings. Three hours weekly, with one period of language laboratory.
Six credit hours.

Russian 21.
Advanced Russian.
An introduction to more advanced texts of Russian prose as well as extensive oral practice on material covered in the readings. Advanced problems in syntax and grammar will be discussed and resolved.
Three credit hours.

Russian 22.
Survey of Russian Literature up to the 19th Century.
A study of Russian literature from its origins in the 11th Century, through the chronicle period, up to the beginnings of modern Russian literature in the 19th Century. Readings from representative authors in Russian.
Three credit hours.

Russian 31, 32.
Golden Age of Russian Literature.
Six credit hours.

Russian 51, 52.
Russian Civilization and Area Study.
Six credit hours.
V. SPANISH

Spanish 11, 12.
Elementary Spanish.

The aim of this course is to teach the student to speak, read and write simple idiomatic Spanish. Three hours weekly, with two periods of laboratory practice.

Six credit hours

Spanish 15A, 16A.
Upper-Intermediate Spanish.

A systematic review of the fundamentals of the language, with intensive and extensive reading of selected texts. Three hours weekly, with one period of laboratory practice. Prerequisite: Spanish 12, or better than average score on the placement test.

Six credit hours

Spanish 21A, 22A.
Advanced Spanish I.

Advanced composition with a survey of selected literary masterpieces. Three hours weekly. Prerequisite: Spanish 16, or outstanding performance on placement test.

Six credit hours

Spanish 25, 26.
Advanced Spanish II.

Emphasis is given to composition, while acquainting the student with the masterpieces of the 17th, 18th, 19th centuries. Three hours weekly. Prerequisite: Spanish 22A.

Six credit hours

Spanish 41, 42.
Survey of Spanish Literature.

Six credit hours

Spanish 51, 52.
Cervantes and Drama of Golden Age.

Six credit hours

Spanish 55, 56. (17, 181)
19th Century Novel.

Study of representative works of outstanding novelists of this century, including Alarcón, Galdós, Pereda, and many essays dealing with the cultural life of the period are included in this course. Students are required to write critical essays on all the works read. Course given completely in Spanish.

Six credit hours

Spanish 61, 62.
Survey of Spanish Drama.

Six credit hours

Spanish 63, 64.
20th Century Novel and Essay.

Study of some of the most representative works of writers such as Pérez de Ayala, Baroja, Unamuno, Cela, Zunzunegui, Lafont, and Goytisolo. Critical essays are required of the students. Course given in Spanish.

Six credit hours

Spanish 71, 72.
Conversation and Composition.

Six credit hours

1 Special Studies Program. Cf. p. 58.
Courses of Instruction

DEPARTMENT OF Philosophy

Professors: Dowling, Gillis, Hutchinson, Keating, Moran, Sarjeant, J. Shea
Associate Professors: Centi, Drohan, Harrington, (Zody)
Assistant Professors: F. F. Callahan, J. D. Crowley (Acting Chairman), Donnelly, Lamzon, Lynch, Rosenkrantz

Philosophy 21. Logic.

Introduction to Philosophy: Study of the origins of Western Philosophy (Plato, Aristotle, Aquinas); survey of major philosophical problems; the problem of a Christian Philosophy.

Aristotelian Logic: A study of the basic instruments of human knowledge, the Concept, Proposition, Deductive and Inductive Argumentation from both a technical and philosophical point of view.

Modern Mathematics, Symbolic Logic: A study of the origins and basic techniques of mathematical logic, a comparison with Aristotelian logic.

The Logic of Scientific Induction: The problem of inductive generalization; solution by Mill's canons of induction, theory of probability; verification of hypotheses, other general criteria. Three credit hours.

Philosophy 22. Epistemology.

The Validity of Human Knowledge... As an historical problem, Skepticism and Cartesian Doubt. The Realists' answer—Primitive Truth.

The Sources of Human Knowledge... Experience: Contact with extramental reality through sensation, Judgment and reasoning. The universal idea. The position of Relativism and Idealism on man's contact with an extramental world.

Objective Evidence as the criterion of truth. Testimony.

Philosophy 41. General Metaphysics.

A consideration of Being based on the objects which are presented to us in experience as undeniably real. From the facts of change, multiplicity and limitation we learn of the compositions within being involving substance and accident, matter and form, essence and existence. Further analysis of these as particular cases of the theory of potency and act. The transcendence and analogy of being necessitating the view of metaphysics as a concrete science. Origin of our knowledge of being as metaphysical through the negative judgment of separation. How this differs from any other type of organized, abstract knowledge. The transcendental properties of being. Efficient and final causality in being. God as the sole, ultimate, efficient and final cause of the real. Three credit hours.

Philosophy 43. Survey of Scholasticism.

Philosophy 44.
Natural Theology and Cosmological Questions.

The nature and characteristics of Natural Theology. Demonstrability of God's existence. Validity of the *a posteriori* demonstration emphasizing the fact that the actual reality of God is a necessary implication of the actual reality of anything which is real. The five ways of St. Thomas critically analyzed. Man's knowledge of God. The Divine perfections: necessity, infinity, aseity, immutability, eternity and immensity. God's knowledge and love, creation and providence, God as the end of man. Philosophical attitudes to the existence of God. This to be expanded to the limits of practicality to include Ockam, Leibnitz, Kant in particular, Empiricists, Scientism, Existentialists.

Matter and Form (Theory and Hylomorphism), Quantity and Quality, Space and Time, Laws of Nature. *Three credit hours.*

Philosophy 45.
Scholastic Method and Bibliography.

The course is an inquiry into the epistemological method proper to philosophy as presented by St. Thomas in his commentary on Boethius' *DE TRINITATE* and *DE ENTE ET ESSENTIA*. The ontological mode of knowledge in philosophy is highlighted by contrasting it with the structural mode used in the mathematical and experimental sciences. Reading lists are offered; the student is introduced to the *OPERA OMNIA* of St. Thomas, the Thomistic commentators, lexicons, bibliographies, encyclopedias, and the major collections of patristic and medieval works. All this is discussed in seminars. *Three credit hours.*

Philosophy 53, 54.
Rational Psychology.

The Philosophy of Human Nature. A study of human nature as it manifests itself in the vegetative, sensitive and intellectual powers. Life is a nature expressed in Sensation and Perception through species from external and internal sense powers complemented by dynamic appetites. Life's highest form is Intellectual and Volitional activities sponsored by man's substantial, simple, spiritual, created, immortal soul. Anthropological evolution. *Four credit hours.*

Philosophy 55.
General Ethics.

Definitions, nature, object necessity of Ethics; the ultimate end of man; beatitude; the human act; merit and accountability; the passions; virtue and vice; morality of human acts; the norm of morality; Utilitarianism and Hedonism; Bentham, Mill and Spencer; the eternal law and the natural law; properties and sanction of the natural law; nature and origin of moral obligations; Kant's categorical imperative; Conscience. *Four credit hours.*

Philosophy 56.
Special Ethics.

Man's duty to his Creator; Rationalism; Indifferentism. Man's duty to himself; man's duty to preserve himself; suicide. Man's duty to his neighbor; direct and indirect killing; killing done in self defense; lying, mental reservation. Right of ownership: Communism and Socialism; theories of Henry George; Herbert Spencer on the right of property; modes of acquiring property; rights of disposing property by will; contracts; relations of capital and labor; trade unions; strikes. Social Ethics: Society in general: nature and end of domestic society; unity and indissolubility of matrimony; divorce; parental authority; education of the child. Civil Society: nature, end and origin; false theories on the origin of civil society; Hobbes and Rousseau; the Scholastic doctrine; form of civil government—legislative, judiciary, executive; taxation; death penalty; freedom of worship; freedom of the press; state education. International Law: various meanings of *Jus Gentium*; foundation international law; mutual relations of nations; rights of commerce; rights of neutrals; nature and justice of war; arbitration. *Four credit hours.*

Philosophy 57, 58.
History of Modern Philosophy.

The main trends of modern thought. The schools of rationalism and empiricism as found in the 17th and 18th centuries. An examination of the Kantian synthesis and the subsequent break-up of the synthesis into the schools of idealism and positivism. Brief introduction to new attempts to synthesize: the philosophy of life movements,
phenomenology and existentialism, the analytic movement, American naturalism.

The continuity of the philosophical quest is emphasized by frequent references to the questions as they appeared in the older philosophies and, in particular, in the thought of St. Thomas Aquinas.

**Philosophy 59.**

Plato.

His life; influence of Socrates, Founding of the Academy and its spirit. An analytical study of selected dialogues.

**Three credit hours.**

**Philosophy 60.**

Marxism.

The union of the Hegelian Dialectic with the Materialism of Feuerbach. The process of development as it is found in the economic interpretation of history, the labor theory of value, surplus-value, the dictatorship of the proletariat, the classless society.

**Three credit hours.**

**Philosophy 62.**

History of Greek Philosophy.

The principal antecedents of Plato and Aristotle, Thales, Sophists, Socrates. From a perusal of the original text, or translations, the influence of the early Greeks on the major relationships of man to God, to himself and to other men is measured. The doctrine of Act and Potency is studied with reference to Heraclitus and Parmenides.

**Three credit hours.**

**Philosophy 64.**

History of Medieval Philosophy.

A study of the more important philosophers of the Middle Ages including Boethius, Pseudo-Dionysius, St. Anselm, Abelard, Albert Magnus, Avicenna, Averroes, Maimonides. Also an analysis of the influence of Plato, Aristotle and Neo-Platonists on St. Thomas and a comparison of St. Thomas with other Scholastic schools rounds out the course.

**Three credit hours.**

**Philosophy 66.**

History of Contemporary Philosophy.

A survey of the outstanding philosophical thinkers of the late 19th and 20th centuries, including Bergson, James, Dewey, Whitehead, Russell, Jaspers, Sartre, and Marcel.

**Three credit hours.**

**Philosophy 67, 68.**

Scholastic Philosophy and Modern Science.

A critical examination of the structure of contemporary mathematics and modern science, with emphasis on its presuppositions, methodology, intelligibility and noetic character, along with some current philosophical orientations. Relevance to Thomistic metaphysics is analyzed.

**Six credit hours.**

**Philosophy 69.**

Phenomenological Existentialism.

An examination of the origins and bases of the contemporary phenomenological movement. The growth of existentialism from phenomenology. The theistic and atheistic strands of the movement. Current influences of existentialism in the areas of psychology, sociology and religious thought.

**Three credit hours.**

**Philosophy 90.**

Philosophical Basis of the Education Problem.


**Three credit hours.**

**Philosophy 91.**

Primitive Religious Thought.

An introduction to animistic, monotheistic, functionalist and psychoanalytic theories of religion. A sampling of primitive religious systems. Prerequisite: Natural Theology.

**Three credit hours.**

**Philosophy 94.**

Spinoza.

Man seeking God. One Substance, i.e., God. Will is a necessary cause, not free. Baruch’s problem: true liberty and happiness. His link is not religious but rational. Modes are Thought and Extension of God. Pantheism.

**Three credit hours.**

**Philosophy 95.**

Maurice Blondel (1861-1949).

Man’s destiny gives meaning of life. He aspires towards a goal that is not merely a natural one. Considers man not in his metaphysical nature but in concrete reality. Metaphysical Analysis—reach content of Will in action where man incarnates himself in the concrete. Supernatural in all Wills.

**Three credit hours.**
Philosophy 71, 72. 
Introduction to Current General Psychology.

The course aims to acquaint qualified students with the more important and representative areas of current scientific psychology. Thus both those intending to major in psychology and those seeking an understanding of the significance of psychology in human experience will be introduced to the fundamental principles of individual psychology as operative in motivation, learning, perception, and thinking. The course also presents the application of these principles to applied areas such as emotion, social processes, assessment of abilities and personality, and biological substrates of behavior. 

Six credit hours.

Philosophy 73. 
Statistics.

An introduction to statistical methods in the analysis and interpretation of psychological data; measures of central tendency, variability, correlational techniques—both partial and multiple—and reliability of statistical measures. A brief survey of factor analysis and analysis of variance. 

Three credit hours.

Philosophy 74. 
History and Systems of Psychology.

This course aims to acquaint advanced students with the development of theoretical systems of psychology. It deals with the history and contemporary trends of theories of development, perception, learning, thinking, motivation, emotion and quantitative psychology. Emphasis is placed on understanding of contemporary theoretical systems. 

Three credit hours.

Philosophy 75, 76. 
Physiological Psychology.

Structure and function of the nervous system and endocrine glands with reference to man's senses. Neural, physiological, and biochemical substrates of emotion, learning, and abnormal behavior; the neural basis for motor coordination and integration, somesthesia, sensation, and perception. Psychological effects of work, fatigue, drugs, alcohol, brain surgery, and other influences on neural processes. An introduction to psychosomatic affections, psychiatric drugs, psychotomimetic agents, and the reticular activating systems. Basic anatomy and function of man's senses. Emphasis is placed on understanding the determining influence which physiological processes frequently exert on human behavior and experience. 

Six credit hours.

Philosophy 77. 
Problems and Procedures in Personality Measurement.

The purpose of the course is two-fold: to acquaint the students with the principal instruments currently in use in the assessment of personality and to consider the problems which a psychologist faces in the measurement of personality factors. Among the topics to be considered are the following: the criteria for evaluating and selecting tests; an overview of measurement methods, the aspects of personality, and the methods of studying personality. Among the methods to be treated are the questionnaires and inventories and the projective techniques. 

Three credit hours.

Philosophy 78. 
Theories of Personality.

The purpose of the course is to provide a summary and evaluation of the major contemporary theories of personality and to acquaint the students with the research in this area. Among the theories to be discussed are those of the following men: Freud, Jung, Sullivan, Lewin, Allport, Rogers, and Murphy. 

Three credit hours.

Philosophy 79. 
Theory and Practice of Psychological Assessment.

The history of psychological testing; the rationale of test construction and administration. A thorough examination of the theory, development and application of psychological tests. Presentations and critical survey of general ability, special aptitude, achievement, interest and attitude tests. An introduction to projective techniques. 

Three credit hours.

Philosophy 80. 
Psychopathology.

An examination and analysis of factors involved in the development and structure of the abnormal personality; faulty and exaggerated psychological processes and pathological reaction types as seen in neuroses, psychoses and antisocial behavior; personal, social and cultural influences on mental disturbances. An introduction to diagnostic and
therapeutic techniques, including application of drugs and other organic adjuncts. A brief evaluation of mental hygiene and preventive psychiatry. Tours of mental institutions will be arranged. Three credit hours.

Philosophy 81, 82. General Experimental Psychology.

A thorough treatment of the methods and techniques of experimental psychology and their application to various content areas. Emphasis is placed on psychophysical methods as they apply to the empirical study of sensation, perception, memory, learning, attention, motivation, imagination and thinking. The laboratory involves actual use of equipment and apparatus used in psychological investigations. An independent research project, in addition to selected experiments, is required. Instruction, demonstrations and use of electric calculators. Two lectures and one (four-hour) laboratory period. Eight Credit Hours.

Courses of Instruction

DEPARTMENT OF

Physics

Professors: Connolly (Chairman), T. Smith, McDonald
Associate Professors: Gunter, R. MacDonnell
Assistant Professors: Kennedy, Sarup

The curriculum leading to the degree of Bachelor of Science in Physics is designed to provide a thorough foundation in the principal branches of physics as an immediate preparation for professional work in the field and for further study leading to advanced degrees in science and engineering.

PHYSICS

Physics 11.
Mechanics, Heat and Sound.

An introduction to Mechanics, Heat and Sound. Three lectures and one (three-hour) laboratory period. Four credit hours.

Physics 12.
Electricity and Light.

An introduction to Electricity and Light. Continuation of Physics 11. Three lectures and one (three-hour) laboratory period. Four credit hours.

Physics 17, 18.1
Foundations of Modern Physical Science.

A seminar offered freshman students who have achieved distinction in high school physics. Admittance is subject to the approval of the Chairman of the student’s major department. Eight credit hours.

Physics 21.
Geometrical and Physical Optics.


1 Special Studies Program. Cf. p. 58.

Physics 24.
Modern Physics.


Physics 41, 42.
General Physics.

A survey course covering Mechanics, Heat, Sound, Light, Electricity and Modern Physics. Elective for non-science Majors. Two lectures and one (two-hour) laboratory period. Six credit hours.

Physics 43.
Introduction to Astronomy.

By means of lectures and illustration, coupled with some observation and laboratory work, the student is given a view of the universe in which we live. The course is developed by tracing the investigations which lead to the presently known picture
Physics 44. 
Introduction to Geology.


Three credit hours.

Physics 47. 
Theoretical Mechanics I.


Physics 48. 
Theoretical Mechanics II.


Physics 51. 
Electricity and Magnetism I.


Four credit hours.

Physics 56. 
Electricity and Magnetism II.


Four credit hours.

Physics 62. 
Electronics.

A C circuit analysis and filter theory. A study of the characteristics of semiconductor diodes, transistors, vacuum and gas filled electron tubes. The basic circuits in which these devices are used. Three lectures and one (three-hour) laboratory period. Prerequisites Ph. 51. Four credit hours.

Physics 67. 
Advanced Modern Physics I.


Three credit hours.

Physics 68. 
Advanced Modern Physics II.


Physics 69, 70. 
Thermophysics.

Introduction to thermodynamics, thermodynamic systems, state variables (for ideal and real gases), Laws of Thermodynamics and their consequences. Maxwell distribution of velocity, equipartition of energy, specific heats and transport coefficients.


Six credit hours.

Physics 73. 
Engineering Drawing.

Isometric and oblique projections. The construction of conics and rolled curves. Dimensioned freehand sketches from ma-
chine parts and detail drawings from sketches. Two (two-hour) laboratory periods.  
Two credit hours.

Physics 74.
Descriptive Geometry.

A study of the fundamental operations of orthographic projection. Lines, planes, solids, sections, developments, tangent lines and planes, and intersections of surfaces of revolution. Two (two-hour) laboratory periods.  
Two credit hours.

Physics 75.
Seminar.

The Physics Seminar, a circle of the faculty and the more advanced students majoring in physics, meets semi-monthly.
Courses of Instructions

DEPARTMENT OF

Sociology

Professor: Facey (Chairman)
Associate Professor: R. Burke
Assistant Professor: Scott
Instructor: Fallon

The department presents a scientific approach to the understanding of human society. After the introductory course in general sociology, the emphasis is upon methods of research and sociological theory, together with substantive studies and theoretical developments in specified areas.

The department maintains a laboratory-workshop which serves its students as a center for their research operations, and a seminar room which also contains reference works. Honors students participate in seminars, tutorial reading programs and individual research projects oriented toward independent study.

Sociology 11, 12. General Sociology.
The introduction to sociological analysis of social groups, social processes, culture and social change. Six credit hours.

The basic statistical concepts needed for a better understanding of behavior. Collecting, classifying and interpreting data through the use of measures of central tendency, variability, correlation, standard scores and sampling are studied. Graphical presentation of material and formulae applicable to test material are given. Three credit hours.

Sociology 41. General Sociology.
A single semester introductory course for sociology majors who have not taken Sociology 11 and 12. Three credit hours.

Sociology 42. General Sociology.
Elementary sociological analysis offered to students who are enrolled in the Department of Economics. Three credit hours.

Sociology 56. Sociology of Religion.

An elaboration of a frame of reference for the analysis of social systems in terms of contemporary theory. Three credit hours.

Sociology 64. Social Organization.
Formal organizations and their informal dynamics. Bureaucracies in contemporary industrial, political and military systems. Three credit hours.

Sociology 65. Class Conflict and Social Change.
The dichotomous and the integral models of society considered in relation to the explanation of social change in industrial society. Three credit hours.

Sociology 70. Personality, Society, and Culture.
An investigation and analysis of recent writings from psychology, anthropology and sociology focusing on an interdisciplinary
understanding of personality and social systems; the structural-functional analysis of social systems and the determinants of personality formation.  *Three credit hours.*

**Sociology 71.**  
*The Soviet Social System.*  
A sociological analysis of the political, economic and related social systems of an industrializing society; ideological and international significance of major developments.  
*Three credit hours.*

**Sociology 76.**  
*Cultural Anthropology.*  
An introductory survey of the field. Comparative analysis of social organizations.  
Applied anthropology.  *Three credit hours.*

**Sociology 77.**  
*Elementary Social Research.*  
Introduction to the philosophy of science; research design and the basic techniques of research.  
*Three credit hours.*

**Sociology 78, 79.**  
*Advanced Social Research.*  
Individual research.  *Six credit hours.*

**Sociology 91, 92.**  
Seminar and Tutored Reading.
Courses of Instruction

DEPARTMENT OF

Theology

Professors: W. Casey, W. J. V. E. Casey¹, Haran, Harkins, O’Connor
Associate Professors: Delaney (Chairman), J. A. King, J. R. Sullivan, Walsh
Assistant Professors: G. Barry, J. McGrady
Instructors: J. Crowley, E. McCarthy, McGrath
Visiting Professors: McGovern, Philbin

Conscious of the obligations to engender in the student a vibrant, theoretical awareness, and to spark a productively-effective realization of Christ’s truth, our heritage, the Theology Department feels that it has a unique role in a college curriculum. The long-range but omnipresent goal is to make each student alive to the fact that Catholicism is not merely a Creed, but a culture; that the study of its Theology is not merely an intellectual discipline, but the charting of a way of life, a program; that the appended courses outline not merely semester hours, but italicize an attitude toward life as a whole. More specifically, the general purpose of a Catholic Theology Course is to present, in coordinated fashion, a Creed, things to believe; a Cult, things to use in worship, (as, for example, the Liturgy and the Sacraments); and, finally, a Code, things to do, a pattern of morality. The Department of Theology develops its program from two basic premises: first, that our Theology is Christo-centric; and, secondly, that our tradition in scholarship is ultimately Ignatian, stamped with the character minted by the four hundred year history of the Society of Jesus, founded by St. Ignatius of Loyola.

Taking as our norm the oft-repeated dictum of St. Ignatius about Christ in the Spiritual Exercises, “that we may know Him more intimately, love Him more ardently and follow Him more closely,” we endeavor to give a rounded view of Catholic Theology. Thus, we conceive knowledge of Christ to correspond roughly to Dogmatic Theology (Creed), love of Christ to have a not-too-strained relationship with Ascetic Theology (Cult) and the notion of serving to have a definite kinship with Moral Theology, and, by legitimate extension, to Canon Law (Code). All these branches of Theology are woven into whatever fragment of theological truth may be under scrutiny in a given semester, with the doctrine of the Mystical Body of Christ as the unifying element of the entire corpus of truth. We thus hope to provide an intelligent insight into the Christian mysteries, so that the ensuing light of faith will be genuinely and maturely intellectual, as befits the educated and articulate college graduate. This is an attempt to realize the purpose of the Theology Department, “That they may know Thee, the one, true God, and Jesus Christ Whom Thou hast sent.”

Theology 11.
Introduction to Christo-centric Theology.

Our consideration divides into two parts: first, an orientation for the study of Catholic Theology; secondly, a study of the Person of Jesus Christ. The orientation is, in turn, bipartite: first, ascetic, consisting in a Study of the Mass, the essence of Chris-

¹ On leave (1962-63.)
Christian worship; secondly, dogmatic, which is a thorough exposition of the methodology of theological study. The second part of this course treats the Person of Jesus Christ by considering Old Testament prophecies and adumbrations about Him; and then makes a broad survey of the historical Christ as He appears in the pages of the New Testament. Due attention is paid to the political, social and religious background of the historical Christ. Two credit hours.

Theology 12.
The Mission and the Church of Jesus Christ.

From Christ’s revelation of Himself in the Gospels, the course establishes that He is a Divine Legate, authentic Teacher for the whole world, Son of God, God. With this as a basis, there is established a triple, historical fact: first, the fact that God did give a public revelation; secondly, the fact that the God-Man established an authoritative Church; finally, that this Church was and is the one, holy, Catholic, apostolic Roman Church. The course continues by examining the EXTERNAL organization of the Church of Christ: its mission, its function, its infallibility, its indefectibility, its necessity for salvation. Both its ordinary and extraordinary teaching and ruling powers come under consideration and, in the light of recent developments, special treatment is given to Ecumenical Councils, historically and factually. Two credit hours.

Theology 17, 18.1
Fundamental Theology.

The work of this seminar will be centered about the twin concepts of Scripture and Tradition with special emphasis on their content, their relationship one to the other, and their status as norms for the Church’s life, cult, and doctrine. Four credit hours.

Theology 21.
Christ Living in His Members.

From the external organization of the Church, the transition to the same Church in its INTERNAL aspects is felicitous. Thus, we examine the doctrine of the Mystical Body of Christ, the Church as an ORGANISM (versus hierarchical organization), a living, vital entity with a Body made up of Christ and its members and its soul the Holy Spirit: in a word, the Church living in us and in Christ. Having treated the fact of its revelation and explained the nature, as far as possible, of the mystery of the Mystical Body, the transition to sacramental Theology is logical, because it is the seven sacraments, instituted by Christ, which effect the grafting of the life of God, that organic life of a Body, onto the Catholic man. The course, then, with special emphasis on the relationship of the Sacraments to the Life of the Mystical Body, continues with Baptism, Confirmation, and The Eucharist: as a Solace (doctrine of the Real Presence), as a Sacrament (doctrine on Holy Communion) and as a Sacrifice (DOGMATIC Theology of the Mass.) Two credit hours.

Theology 22.
Christ Living in His Members (Cont.)

This course continues with the Dogmatic, Ascetic and Moral Theology of the remaining Sacraments: Penance, Extreme Unction and Holy Orders. Since it is the sacrament of the union of husband and wife that is the divinely-revealed symbol of the unity of the Mystical Christ, that is, of the union of Christ, the Head with His members, special emphasis is given to the Sacrament of Matrimony. Two credit hours.

Theology 41.
Christ: The Incarnation and Redemption.

Since the Divine Pedagogue, through His authoritative revelations in the New Testament, followed a definite order in teaching various truths, we adopt that order. The sacramental nature of the Church, the Mystical Body, leads us logically to the Mystery of the Incarnation, itself a sort of sacrament and the Incarnation in turn leads to the great redemptive gesture of Cavalry, where Christ entered into possession of His Church, His Mystical Body. Because no consideration of Christ would be complete without due attention to the Mother of Christ, (both the physical Christ and the Mystical Christ, the Church), who is, of course, the Mother of God, our treatise concludes with a treatment of Mariology. Two credit hours.

Theology 42.
Doctrine on Grace.

From Calvary, where Christ merited all the supernatural grace that is, according to

1 Special Studies Program. Cf. p. 58.
the dispositions of Divine Providence, to be channeled to men through the hands of His Blessed Mother, a consideration of Grace, (the principle of both supernatural life and supernatural operation in the Mystical Body), follows in logical progression. The adequate treatment postulates that special attention be paid to the Fall of Man with the resultant loss of grace. So the course treats the background, setting, meaning and consequences of Original Sin, which is, in its essence, the privation of Sanctifying Grace. The Redemption of Christ having restored grace to mankind, the course proceeds by examining the nature, necessity, gratuity and effects of grace, both actual and habitual.

Two credit hours.

Theology 51.
Protestant Ecumenical Movement.

Because there have been various mutilations and contusions (especially in the form of heresies) of the Mystical Body of Christ, we inaugurate a study of the Protestant Ecumenical Movement, a particularly timely consideration in the light of today's irenic climate. The history and progress of the World Council of Churches are studied. The historical causes of a divided Christendom are explored. The impact of Deism, Illuminism, Rationalism, Liberalism, Historicism, Eschatologism and Neo-Orthodoxy on Protestantism is examined. The study of the history and doctrines of major Protestant denominations in America is begun.

Two credit hours.

Theology 52.
Christian Churches in America and Relations to Catholicism.

Conscious of the religiously pluralistic society in which members of the Mystical Body must live, this final obligatory course seeks to equip the student with the intellectual and volitional means which will enable him to play an effective role in restoring all things in Christ, the exalted Head. After completing the study of major American denominations, the principles for evaluation and clarification of questions raised in the Church-State controversy are presented. In keeping with the modern emphasis among all sects, the principles and practise of the Catholic Lay Apostolate are explored, with special emphasis on the Liturgy as a means to the necessary personal holiness of the lay apostle.

Two credit hours.
Courses of Instruction

GRADUATE DEPARTMENT OF

Chemistry

Professors: Baril, Fiekers, VanHook
Associate Professors: Martus, (Chairman), Tansey
Assistant Professors: McMaster, O'Hara, Ricci
Research Associate: Bishop

The College conducts courses in Chemistry for Graduate Students leading to the Master of Science degree. Registration for these courses is open only to students who hold Bachelor's degrees from approved colleges and technical schools. Candidates for admission should file applications with the Chairman of the Chemistry Department before the fifteenth of March each year. In support of application each candidate should forward a transcript of his undergraduate record and two letters of recommendation should be supplied by former chemistry professors of the applicant. A supplemental completed transcript, with record of degree received, should be sent after graduation in the case of successful applicants. Information as to fellowships available in the graduate department should be requested of the Chairman for Chemistry.

REQUIREMENTS FOR DEGREE

To become candidates for the Master of Science Degree students must fulfill the following conditions:

1. Attend and complete, with work of high quality, graduate courses amounting to not less than thirty semester credits of which at least ten must be obtained in laboratory courses.

2. Present an experimental thesis in their major field which shall include the results of original research and evidence of high scholarship.

3. Pass a one-hour oral, public examination conducted by the Chairman and Staff of the Department with at least one other member of the College Faculty to be appointed by the Dean.

Recommendation for the degree does not, however, follow automatically upon the completion of courses and examinations, but only on the affirmative judgment of the Department in each individual case.

ADMISSION TO GRADUATE WORK

Applicants for graduate work should present a minimum of eight undergraduate credits in each of the following subjects: the differential and integral calculus (eight credits total), physics, inorganic chemistry, organic chemistry, analytic chemistry, and physical chemistry. Laboratory work should be included in all of these courses except

1 On leave (Fall semester, 1962-63).
the calculus. Other laboratory courses in chemistry are desirable. Accordingly applicants who do not present the following undergraduate courses may be required to take them in whole or in part, along with, or antecedent to, their regular graduate work. Cases will be judged individually from the record of undergraduate work.

Chemistry 58 Advanced Physical Chemistry (See page 73)
Chemistry 61 Advanced Organic Chemistry I (See page 73)

When these courses or their equivalents are offered, only one year of residence will be the normal requirement for the acquisition of the Master of Science degree.

Each candidate will be required to pass a reading examination in chemical German. Substitution of another modern language may be arranged on consultation with the Director of the Graduate Division.

GRADUATE COURSES

Chemistry 201.
Advanced Inorganic Chemistry.
The lectures in this course comprise a study of the structure of inorganic compounds and the interrelations of elements and compounds according to the periodic chart. Valence studies are stressed and the ideas of Werner, Pauling, Price and current workers in the field are emphasized. The laboratory part of the course starts off with inorganic preparations and progresses into instrumental, analytic and advanced methods, such as liquid ammonia syntheses and the like. Industrial analysis is touched upon. Required of all graduate students. Two lectures and two triple-hours of laboratory per week for one semester.

Five credit hours.

Chemistry 203.
Advanced Organic Chemistry.
The syllabus for this course will vary from year to year according to current trends in organic research and the special background that may be required to comprehend modern advances. Topics used in the past have included: advanced topics in stereochemistry, cyclization of organic compounds and organic heterocyclic chemistry, the chemistry of organic nitrogen compounds, the Diels-Alder Diene synthesis and the chemistry of carbohydrates, fats, oils and other natural products. Similarly the laboratory course, apart from the acquisition of organic chemical preparative techniques that are not generally realized in the undergraduate courses, is generally geared to current organic research in the department. Thus at times micro analysis for elements occurs. Required of all graduate students. Two lectures and two triple-hours of laboratory per week for one semester.

Five credit hours.

Chemistry 207.
Chemical Thermodynamics.
This course develops the principles of chemical thermodynamics and includes applications. The fundamentals of statistical mechanics are also taught. Laboratory work comprises experiments in advanced physical chemistry with emphasis on thermochemistry. Required of all graduate students. Three lectures and two double-hours of laboratory per week for one semester.

Five credit hours.

Chemistry 208.
Reaction Rates.
A study of the kinetics of reactions in both homogeneous and heterogeneous systems, paralleled with experimental applications. Required of all graduate students. Three lectures and two double-hours of laboratory per week for one semester.

Five credit hours.

Chemistry 209.
History of Chemistry I.
The historical development of fundamental chemical concepts up to and including those of the nineteenth century. Assigned readings. Required of all graduate students. One lecture per week for one semester.

One credit hour.

Chemistry 210.
History of Chemistry II.
A study of contemporary developments and contemporary chemists. Assigned readings. Required of all graduate students. One lecture per week for one semester.

One credit hour.

Chemistry 212.
Department Seminar.
One hour per week. One credit for each semester. Total credit not to exceed two credit hours.
RESEARCH FOR MASTER'S DEGREE

Chemistry 213.  
Research for Master's Degree.

Research of a fundamental nature is offered in organic and physical chemistry. Opportunity for the direction of undergraduate research in problems related to current graduate research is also afforded. Six hours per week for two semesters.  
Six credit hours.

Chemistry 214.  
The Literature of Chemistry.

This is an informal course, with no record or credit, which is adapted to the needs of the individual student or group. The course is introduced with a brief series of lectures, a conducted tour of the Science Library, assigned reviews of handbooks such as Reid, Soule, Mellon, Patterson and the patent policy handbooks of various companies. Literature searches are then assigned preferably in fields outside of the student's concentration. Eventually the student's library work in connection with his own research is carefully supervised.

FELLOWSHIPS

In 1926, the College of the Holy Cross established six graduate fellowships in Chemistry. At present each fellowship carries free board, room and tuition or its pecuniary equivalent. Fellows are required to spend from four to twelve hours per week in undergraduate laboratory instruction. These fellowships are offered to graduates of colleges or technical schools, who are properly qualified to undertake graduate work in chemistry. Applications must be filed with the Chairman for Chemistry by the fifteenth of March each year. Applications received after March 15 may also be considered.
Summer Institutes

N.S.F. SUMMER INSTITUTES IN MATHEMATICS AND SCIENCE

Rev. Robert B. MacDonnell, S.J., M.A., M.S., Coordinator

June 25—August 3, 1962

The following programs for teachers of junior and senior high school mathematics and science were offered by the College of the Holy Cross with the support of the National Science Foundation.

Objectives of the Institutes:

To improve the subject-matter competence of junior and senior high school teachers;

To strengthen the capacity of these teachers for motivating students to consider careers of mathematics and science;

To provide an opportunity for the discussion of methods of introducing modern material into the present syllabi in the high schools.

MATHEMATICS INSTITUTE:

Dr. Vincent O. McBrien, Director

Sequence I: Prerequisites: High school mathematics.

Math S 11.
Introduction to Fundamental Concepts of Mathematics:

The purpose of this course was to provide a background in those topics which are essential for the study of mathematics beyond secondary school and to show how these topics are related to the traditional content of secondary school mathematics. Topics covered include the basic algebra of sets, plane sets, and coordinate systems, functions and the algebra of functions, the algebraic structure of the number systems, groups, rings, and fields.

Math S 12.
Introduction to Fundamental Concepts of Analysis:

The aim of the course was to introduce the notion of a differentiable function and the notion of the integral of a continuous function over a closed interval. This is done by systematically using the concept of the limit of a sequence as the basis on which all other ideas are built.

The topics in the order in which they appeared are: sequences of rationals, limits of rational sequences, Cauchy sequences of rationals, the real number system informally obtained as the completion of the rationals, real sequences and their limits, real functions and their properties, limits of real functions, continuous functions, differentiable functions, the integral of a continuous function over a closed interval, integration by antidifferentiation.

Math S 13.
Discussion Periods:

Each member of the Institute was expected to take part in a discussion period which linked the course matter with the traditional secondary school mathematics. This was carried out by dividing the par-
participants into several sections devoted to the study of the various texts written by the School Mathematics Study Group (SMSG). For example, a participant whose chief teaching duties were in Freshman Algebra would select a discussion period devoted to the study of the corresponding SMSG text in algebra.

**Sequence II:**
- **Prerequisite:** Background equivalent to content of Sequence I.

**Math S 16.**
**Introduction to Finite Probability and Statistics for High School Teachers:**
The aim of this course was to provide content background for the teaching of probability and statistical inference in the twelfth grade. Algebra of sets, sample spaces, the probability function, relation between probability and measure theory, Bernoulli distribution, the normal curve, matrices and Markov chains, convex sets and linear programming were treated. Applications were taken from both the physical and behavioral sciences.

**Math S 17.**
**Introduction to Linear Algebra and Matrix Theory:**
The purpose of this course was to provide content background for the teaching of matrix algebra in the twelfth grade and to show the role of linear algebra in secondary school mathematics. Topics covered include matrices, vectors and vector spaces, systems of linear equations, linear transformations, linear independence and bases, vector geometry, applications to science.

**Math S 13.**
Same as Sequence I.

**Staff of the Institute.**
Daniel G. Dewey, M.A.
William E. Hartnett, Ph.D.
Alphonse Jackowski, M.S.
Rev. John J. MacDonnell, S.J., Ph.D.
Vincent O. McBrien, Ph.D.
John R. McCarthy, M.A.

**SCIENCE INSTITUTE**

**Associate Professors:** Gunter, R. MacDonnell

**BIOLOGY:**

**S 11. Introductory Course in Cellular Biology.**
The topics covered, revolving about the cell and its operation, formed the background for a solid and concentrated exposition of modern basic biology. The objectives of the AIBS-BSCS Biological Sciences Study influenced the content of this course.

**S 51. Introductory Cytology.**
The aim of this course was to give a deeper understanding of the structure, division, development, and death of cells than was presented in the introductory course in Cellular Biology.

**CHEMISTRY:**

**Chemistry S 15. Modern Concepts in Chemistry.**
Lectures were given on the fundamental topics of chemical principles, such as are usually encountered in a first-year college course for chemistry majors. These include modern concepts of atomic structure, the relationship between structure and properties, chemical bonding, the states of matter, the periodic table, acid and base theory, ionization theory and equilibria of electrolytes. Introductory notions were given on thermochemistry, the free energy and entropy of chemical reactions.

The laboratory course included experiments which are related to the above topics: titration, heats of reaction, solution chemistry and the construction of atomic, molecular and crystal models.

**Chemistry S 51. Organic Chemistry.**
In the first part of the course the student was introduced to typical homologous series and functional groups: aliphatic and aromatic hydrocarbons, alcohols, alkyl halides, aldehydes, ketones, acids and esters. The second half of the course treated those aspects of organic chemistry which were related to the biology program of the Institute: fats, carbohydrates and proteins.

In the laboratory experiments dealt with the preparation and properties of the above
classes of compounds. Introductory notions of organic analysis were included.

PHYSICS:

S 11.
Fundamental Concepts in Physics.
The topics and manner of treatment were designed to provide background material for the teaching of high school Physics according to the plan of the Physical Science Study Committee. These consisted of a review of the more difficult topics of Mechanics, Electricity, and Modern Physics.

S 51.
Electricity and Magnetism.
This course was designed for those who had completed the course in Fundamental Physics or had the equivalent preparation. Emphasis was placed on understanding of principles, but considerable time was given to acquiring a facility in problem work.

STAFF OF THE INSTITUTE:

Biology:
Rev. John W. Flavin, S.J., Ph.D.
Prof. Thomas L. Malumphy, Ph.D.
Mr. DeWolf Merriam, M.S.

Chemistry:
Rev. Joseph A. Martus, S.J., Ph.D.
Miss Helen W. Crawley, M.A.
Richard N. Castonguay, B.S.

Physics:
Ram Sarup, Ph.D.
Mr. Everett F. Learnard, M.S.
Rev. Thomas J. Smith, S.J., M.S.

SUMMER LANGUAGE PROGRAM

Rev. Alfred R. Desautels, S.J., Ph.D., Director

The following courses were offered during this session:

FRENCH
S 11, 12.
LE FRANCAIS ORAL I.
S 15, 16
LE FRANCAIS ORAL II.
S 21, 22.
LE FRANCAIS ORAL III.

HISTOIRE DE LA CIVILISATION FRANCAISE
HISTOIRE DE LA LITTERATURE FRANCAISE
DE L'AGE D'OR A NOS JOURS

GERMAN
S 11, 12.
GESPROCHENES DEUTSCH I.
S 15, 16.
GESPROCHENES DEUTSCH II.
S 21, 22.
GESPROCHENES DEUTSCH III.

Since these courses are intended to perfect acquired skills, only undergraduate credit is offered. The minimum requirement of 2 hours’ preparation for each classroom period is observed.

Staff:
Rev. Alfred R. Desautels, S.J., Ph.D.
Richard L. Kopp, M.A.
Theodore L. Lowe, Ph.D.

1963 SUMMER INSTITUTES

With the support of the National Science Foundation, Summer Institutes in Mathematics, the Physical and Life Sciences will be offered June 24 to August 2, 1963.

A Summer Language Program will be conducted by the Modern Languages Department from June 24 to August 2, 1963.
Degrees Conferred

June 13, 1962

HONORARY DEGREES

DOCTOR OF LAWS
Walter Lippmann
Joseph Patrick Brendan McMurray

DOCTOR OF LETTERS
Howard Bonar Jefferson
Samuel Eliot Morison
Michael Patrick Walsh

DOCTOR OF SCIENCE
Peter Joseph William Debye
Joseph Michael Foley

DEGREES IN COURSE

MASTER OF SCIENCE
John Martin Avento
Algrid Simon Cibulskas
Joseph Stephen Dragonetti
John Edward Flynn
Albert Louis Menard, Jr.
Francis Joseph Montillo
Mark James Murphy
David Frederick Oberhauser

BACHELOR OF ARTS HONORS MAGNA CUM LAUDE
Arthur Victor Guarino
David Francis Kelly

BACHELOR OF ARTS HONORS CUM LAUDE
Vito Hannibal Acconci
Donal Bernard Barrett
Raymond Joseph Cannon, Jr.
Frederick Charles Christie
Richard Francis_Kempczinski
Gregory Francis Leiher
John Paul McGrath
Joseph Thomas O'Connell
Donald Moore Palatucci
Allen Anthony Schuh

BACHELOR OF SCIENCE HONORS SUMMA CUM LAUDE
Gregory Charles Glynn

BACHELOR OF SCIENCE HONORS CUM LAUDE
Carl Theodore Kallina, Jr.
Richard Douglas Mathias
James Victor Oberthaler
BACHELOR OF ARTS MAGNA CUM LAUDE

David John Driscoll
Michael Joseph Sullivan III

BACHELOR OF ARTS CUM LAUDE

John Edward Cean                  Richard Emil Knab
Robert Emmet Curran              Peter Oscar Kwiterovich, Jr.
Pete John Deckers                 Robert George Lian
John Edward Doran III            Bernard James Long, Jr.
Anthony Stephen Fauci            Daniel Joseph Marshall
James Austin Fitzgerald          Robert Philip Marshall
Paul Francis Forasté             John Joseph Mulcahy
James Joseph Freeman             John Dennis Philips
Christopher Cunningham Gallagher Francis Roland Sacco
Robert Manuel Gracia             Thomas Michael Shea
Joseph Henry Jacovini            Robert Louis Stanley
Edward Neil Jensen               Raoul Carr Vanden Bosche

BACHELOR OF ARTS

Howard Francis Angione           John Neville Fisher
George Wallace Anthes           David William Fitzpatrick
Emmet Thomas Birmingham         Robert John Flinton
Albert John Blanchard          Peter King Foley
H. Thomas Blum                  Richard Ronald Foody
Donald Charles Bourret          Edward Joseph Gallagher
Philip Matthew Byrne           Robert Charles Grmuer
William Andrew Canavan         Alan John Habansky
Dennis Joseph Card              David Gerard Handron
Edward Vincent Casey, Jr.       Arthur Baur Harris, Jr.
Christopher N. Peter Christou  Charles Cletus Hartman, Jr.
Richard Francis Cioffi          Brian William Harvey
Raymond Joseph Clough           Paul Thomas Hayes
Thomas Hull Connelly           Paul Francis Healy
Richard Francis Connolly       William Frederick Hoffman III
Joseph Paul Connor             Frederick William Taylor Hoogland
Edward Anthony Connors          Adolfo Tomas de Hostos Anca
Anthony Richard Corso           James Gregory Hurley
John Louis Costa                William Paul Jepson
David Jeremiah Crowley          William Frederick Johnson, Jr.
Robert Edward Curnen            Thomas Michael Kablik
John Raymond Dearie             Dieter Frank Kastler
Richard Daniel Della Penna      John Joseph Kelliher
Leo Joseph Dorsey               Kevin Patrick Kilgallen
Robert Edward Dunn              Thomas Henry Kulesher
Patrick Joseph Dwyer           Louis Anthony LaBosco
Francis Graham Fallon II        Robert Francis Lally, Jr.

126
Richard Joseph Lamb
Brian Brayshaw Lambert
Jeremiah Richard Leary
John Emery Lent
Frederick Patrick Lillis
Paul Raymond Lilly, Jr.
Dennis Craig Linehan
James Arthur Mahoney
Frederick William Marks III
Vincent John Maroney
Arthur Lee McGratty
Thomas Aquinas McIntyre
Donald Charles McAughlin
Brian Hall McManus
Mark Cyril McQuillen, Jr.
Eugene Ralph Milliken
William Edward Mishler
Thomas John Moriarty
James Joseph Morin
Daniel Charles Mulhan
James Edward Mulvihill
Malachy Roche Murphy
Francis Joseph Naphin
Stefano John Nardi
Thomas Kevin O'Brien
John Timothy O'Connor III
William Joseph O'Connor
Fred Dennis O'Donnell, Jr.
Raymond Kenneth Panda
Henry Arnold Peters, Jr.
Robert Michael Pipchick

Joseph David Pirone
Anthony Michael Pisacano
William Francis Plunkett, Jr.
John Edward Pohrer
Gerald Anthony Ricciardi
Robert Paul Ricker
Richard Stanley Ritzel, Jr.
Martin Francis Roach
Ralph William Romano
Joseph Gregory Rowan
Harry Alan Michael Rush, Jr.
Richard Joseph Saab
Michael Charles Scanlon
Richard Douglas Schaab
Henry Troian Schreyer
John Stephen Senesky
Matthew Mark Sheridan
Gregory Stephen Smyth
Charles Fleming Stark, Jr.
Francis Joseph Stout
James Vincent Sullivan
John Pingleton Switzer
Robert Francis Swords, Jr.
John Paul Thayer
Joseph Andrew Thompson, Jr.
Charles Martin Tomaselli
Arthur Edward Weyman
Richard Alan Wittenburg
Anthony Michael Wojcicki
Chester Francis Wlochowicz
Richard Edward Zulkey

BACHELOR OF SCIENCE MAGNA CUM LAUDE

John Anthony Fanning
William Francis McGuinness
Michael Anthony Nocero, Jr.

BACHELOR OF ARTS CUM LAUDE

Richard Norman Castonguay
Donald Edward Cooper
Joseph Michael Corr
Martin Edward Coughlin
Howard Thomas Egan
George Andrew Higgins
James Walter Hofmann
Martin Peter Holleran, Jr.
Howard Andrew Kiernan

William Kirk Kilpatrick
Peter John Lupario
Arthur Willshire Maurer
John Eugene McGillicuddy
John Francis McKenna
Mark Anthony O'Connor
Richard John Pentland
John Anthony Smolenski
George Gerard van Setter

Richard Lawrence Withington
BACHELOR OF SCIENCE

John Romer Acken
Charles Francis Ahern, Jr.
Robert Arthur Allard
Edward Andrew Alligaier, Jr.
James Thomas Anderson
Joseph William Antonecchia
Anthony Charles Armstead
David Richard Barth
James Edgar Batchelder
A. Thomas Beasley
Arthur Nelson Bellows III
John George Betar
John Charles Biasotti
Vincent Paul Birbiglia
Brian Benedict Boyle
William Michael Brahm
Philip Leo Breen, Jr.
James Stanley Breivis
Thomas John Brennan
Peter Russert Brogan
William Paul Brosnan
Thomas Francis Burggraf
John Joseph Burke
Michael Edmund Burns
Arthur William Bushore
Robert Michael Cain
Paul Henry Carini
John Richard Carmola
Frederick John Carpenter III
Joseph Reilley Carran
Stephen Christopher Caulfield
Lawrence Joseph Celmer
Edward Anthony Cercone
Stephen Francis Chupack
William Joseph Clark
William John Coffey
James O'Reilly Coleman, Jr.
Jerome Michael Comcowich
Kenneth William Cosentino
Richard Alfred Cosgrove
James Barry Coughlin
Albert Edward Crabtree
Wilbert Francis Crowley, Jr.
James Francis Danner
William Joseph Dehey
Kenneth Rene Desmarais
Anthony Michael DeVito
Robert Paul DeYoung
Albert Edward Diran
David Anthony Doern
James Michael Doherty
Philip Michael Dolan
Vincent Joseph Dolan, Jr.
Robert Paul Donahue
Paul Arthur Duplessis
Marc Leo Durand
Brian Michael Dutra
Edward Thomas Dwyer
Peter Richard Eastman
Edward Everett Eldridge, Jr.
Edward Joseph Ellis
John Joseph Engel
William Raymond Escudero
Richard Francis Falvey
Anthony Wallace Fanale, Jr.
Alphonse Russell Fanelli
John Nicholas William Fellin
James Michael Fenlon
Henry John Fischer, Jr.
James Thomas Fitzgerald
Bartley Joseph Fleming, Jr.
Gerald John Fleming
Richard Allan Flintoft
John Edmund Foley
Robert Michael Foley
John Francis Fox
Paul Umbert Galeazzi
William Joseph Gartland, Jr.
John Joseph Geoghan
Raymond Andrew Goelbert
John David Gottlick
George Mutchler Gowen, Jr.
Thomas Gerard Grace II
Kevin Paul Greene
Howard Edward Greenfield, Jr.
Vincent James Grillo
Walter Stanley Groszyk, Jr.
Kevin Morgan Guy
Paul Mark Guyet
Frederick John Hafele
Michael Loftus Hanley
Paul James Hanley
David Philip Hayes
Conrad Campion Heede

128
Thomas John Smith
Robert Ronald Stevenson
Frank Joseph Sugden
Albert Leo Sullivan
Joseph Alfred Sullivan
David Smith Sutherland
Nicholas Noel Testa
Richard Antonio Therrien
John Anthony Timperio
Charles William Trombly, Jr.
Richard Kevin Tucksmith
Fred William Valliant
Alfred Edward Van Haverbeke
Richard William VerEecke

Anthony Michael Vinci
Thomas Alfred Vinton
Francis Joseph Viozzi
Richard Walter Vogel
Michael McDonough Walsh
Thomas Vincent Walsh
Robert James Webster
William Anton Wetzel
John Brian Whalen
Gerard Charles Wheeler
Edmund Paul Wiker
Louis Chapman Wilson
Samuel Francis Winsper
John Elmer Woodin

COMMISSIONED AS ENSIGNS IN THE UNITED STATES NAVY

Walter Gustave Barker, Jr.
Arthur William Bushore
Thomas Hull Connelly
Anthony Richard Corso
Robert Edward Curnen
John Raymond Dearie
Albert Edward Diran
Robert Paul Donahue
Peter Richard Eastman
James Thomas Fitzgerald
Douglas Raymond Hoyt
James Gregory Hurley
Dominick Joseph Izzo III
John Allen Keleher
Kevin James Kiernan
Robert Francis Lally, Jr.
Richard Warren Lawrence

John Francis Lucey
Arthur Lee McGratty
Edward Gerard McGuire, Jr.
John Francis McKenna
Donald Charles McLaughlin
John Timothy O'Connor III
C. Kevin O'Donoghue
John Ulick O'Sullivan, Jr.
Jean Edmond Plourde
Robert Anthony Ryan
Frank John Schanne, Jr.
Gregory Stephen Smyth
Charles Fleming Stark, Jr.
Michael Joseph Sullivan III
Richard Antonio Therrien
Charles Martin Tomaselli
Gerard Charles Wheeler
Louis Chapman Wilson

COMMISSIONED AS SECOND LIEUTENANTS IN THE UNITED STATES MARINE CORPS

William Paul Brosnahan
Lawrence Joseph Celmer
Edward Anthony Cercone
Kenneth Rene Desmarais
Brien Michael Dutra
Alphonse Russell Fanelli
Howard Edward Greenfield, Jr.
Martin Peter Holleran, Jr.
James Joseph Morin

Paul Francis O'Keefe
Chester John Patraitis
Earl Martin Schara
John Charles Short, Jr.
Michael Greig Smith
Robert Ronald Stevenson
John Anthony Timperio
Richard William VerEecke
Thomas Alfred Vinton
COMMISSIONED AS SECOND LIEUTENANTS IN THE UNITED AIR FORCE RESERVE

James Thomas Anderson
George Wallace Anthes
*Philip Matthew Byrne
Joseph Paul Connor
James Barry Coughlin
John Nicholas William Fellin
*Peter King Foley
*Charles Cletus Hartman, Jr.

Thomas Herbert Lee
*Edward Leonard Mahoney
John Francis McCarron III
Brian Hall McManus
Robert Michael Pipchick
William Joseph Rowe III
Joseph Paul Rymsza, Jr.
Joseph Andrew Thompson, Jr.
Michael McDonough Walsh

*“Designated as Distinguished Air Force ROTC Graduates.”

VALEDICTORY ADDRESS ....................... Gregory Charles Glynn

DEGREE CONFERRED 14 JUNE 1961

BACHELOR OF ARTS
Raymond A. Peck, Jr.

DEGREES CONFERRED 29 JANUARY 1962

BACHELOR OF ARTS
James F. Keefer
John R. Moynihan

DEGREES CONFERRED 1 SEPTEMBER 1962

BACHELOR OF ARTS
Edward P. Lilly

BACHELOR OF SCIENCE
Thomas P. Dougherty
John J. Fox
Kenneth W. Hopkins
Raymond B. Lombardo
James X. Mullen
William D. Royall
Awards

JUNE, 1962

THE BELLARMINE HISTORY MEDAL

The Bellarmine Gold Medal, the gift of Mr. and Mrs. Edward J. McGratty, Sr., in memory of Patrick H. and Elizabeth L. McGratty, for the best historical essay on Colonial America.

Not awarded in 1962.

THE BOURGEOIS AWARD

The Bourgeois French Prize, the income on $1,000, established in 1947 by Albert L. Bourgeois, Esq., '22, in memory of his late father, Pierre Bourgeois, and of his mother, Fabiola Bourgeois, to be awarded annually for the best essay on a subject relating to the French or their descendants in the United States.


THE NELLIE M. BRANSFIELD PRIZES

The Nellie M. Bransfield Award, founded in 1946, by the will of the late Nellie M. Bransfield, income on $2,000, to be awarded annually as prizes for excellence in elocution among the undergraduates.

Awarded to: Kevin J. Keogh, of the Class of 1963.

THE FRANK D. COMERFORD PRIZE

The Frank D. Comerford Silver Medal, founded in 1942 by the management and employees of the Boston Edison Company, to be awarded annually at Commencement Exercises to a student of the graduating class for excellence in public speaking.

Not awarded in 1962.

THE CROMPTON SCIENTIFIC MEDAL

The Crompton Gold Medal, founded in August, 1875, by George Crompton, Esq., for the best Scientific Essay submitted during the school year.

Not awarded in 1962.
THE JOHN J. CROWLEY PRIZE

The John J. Crowley Purse (income on $1,000.00) awarded annually to provide purse or prize for best essay on any religious, literary, historical, economic or scientific subject.

Awarded to: William J. Bleichert, of the Class of 1964.

THE PATRICK F. CROWLEY MEMORIAL PRIZE

The Patrick F. Crowley Purse, the income on $1,000.00, founded in July, 1947 by Bridget T. Crowley, in memory of her brother, Patrick F. Crowley, to be awarded annually for proficiency in debating and oratory.

Awarded to: Michael E. Harkins, of the Class of 1963.

THE DeVALERA HISTORY PURSE

The DeValera Purse (income on $1,000.00), the gift of Daniel H. Coakley, for the best essay on a subject taken from Irish history.

Not awarded in 1962.

THE FALLON DEBATING PRIZE

The Fallon Debating Prize, founded in 1901 by Rev. John J. Fallon of the Class of 1880, (income on $1,000.00).

Awarded to: Kevin J. Keogh and Daniel F. Kolb, of the Class of 1963.

THE FLAHERTY PRIZE IN HISTORY

The Flaherty Gold Medal, founded in May, 1903, by Patrick W. Flaherty, Esq., to be awarded annually for the best essay on a subject selected by the Faculty.

Not awarded in 1962.

THE FLATLEY PHILOSOPHY PRIZE

The Flatley Gold Medal, founded in 1890 by the late Reverend Michael F. Flatley of the Class of 1865, to be awarded annually to the student attaining the highest average in the philosophy courses of senior year.

Awarded to: Gregory C. Glynn and David F. Kelly, of the Class of 1962.
THE EDNA DWYER GRZEBIEN PRIZE
The Edna Dwyer Grzebien Prize, established in 1960 by Doctor Thomas W. Grzebien in honor of his wife, former teacher of Modern Languages at Classical High School, Providence, R.I., income on $1,000.00, to be awarded annually to a student proficient in Modern Languages.


THE REVEREND WILLIAM F. HARTIGAN MEDAL
The Reverend William F. Hartigan Medal, founded in May, 1932, by Josephine C. Hartigan in memory of her brother, the Reverend William F. Hartigan, to be awarded annually to a student of the graduating class submitting the best essay on a subject in Religion.

Awarded to: Carl T. Kallina, Jr., of the Class of 1962.

THE KAVANAGH AWARD
The Kavanagh Medal, established in 1952 by the late Right Reverend Michael P. Kavanagh of the Class of 1893, to be awarded annually to the student writing the best original essay on some phase of Catholic Art or Christian Archaeology.

Not awarded in 1962.

THE KILLEEN PRIZE IN CHEMISTRY
The Edward V. Killeen, Jr. Chemistry Purse, for general excellence throughout the Bachelor of Arts premedical course in chemistry.

Awarded to: Anthony S. Fauci and Francis R. Sacco, of the Class of 1962.

THE KRANICH PRIZE
The Kranich Gold Charm, the gift of the Kranich Brothers, Inc., of Worcester, Massachusetts, to be awarded annually to the student contributing the best essay to "The Purple."

Awarded to: Christopher C. Gallagher, of the Class of 1962.

THE JOHN C. LAWLOR MEMORIAL PRIZE
The John C. Lawlor Gold Medal, the gift of the Class of 1911, to perpetuate the memory of Dr. John C. Lawlor of the Class of 1911, to be awarded annually to a letterman of the graduating class adjudged the outstanding student and athlete during the college course.

Awarded to: Walter G. Barker, of the Class of 1962.
THE WILLIAM E. LEAHY AWARD

The William E. Leahy Award in memory of William E. Leahy of the Class of 1907, to the outstanding debater in the B.J.F. Debating Society. This memorial prize consists of a medal and a cash award of $100.00.

Awarded to: Kevin J. Keogh, of the Class of 1963.

THE LEONARD PURSE

The Leonard Award, founded in 1951 by the will of the late Reverend John F. Leonard, to be awarded annually for proficiency in oratory, debating or like competition.

Awarded to: Daniel F. Kolb, of the Class of 1963.

THE MARKHAM MEMORIAL PRIZE

The Markham Memorial Prize consisting of a Gold Medal and a Purse of $100.00, established in 1947 by the Most Reverend Thomas F. Markham, D.D., of the Class of 1913, in memory of his parents, James and Honora Hickey Markham, to be awarded annually to a student of the graduating class designated by the Dean as having the highest rank of academic proficiency in the philosophy course of Natural Theology.

Awarded to: Gregory C. Glynn, of the Class of 1962.

THE GERTRUDE McBRIEN MATHEMATICS PRIZE

The Gertrude McBrien Mathematics Prize, established in 1960, income on $1,000.00, to be awarded annually to a senior for proficiency in Mathematics.

Awarded to: Raymond J. Cannon, of the Class of 1962.

THE McMAHON HISTORY PURSE

The McMahon Purses, three in all, founded in 1927 by the late Right Reverend Monsignor John W. McMahon of the Class of 1867, to be awarded annually for the best essays on the History of the Catholic Church in New England.

Not awarded in 1962.

THE NUGENT PHYSICS MEDAL

The Nugent Gold Medal, founded in June, 1894, by the Reverend Edward Evans Seagrave to perpetuate the memory of his ward, John T. Nugent, who died at the College in 1893, awarded annually for general excellence throughout the course in Physics.

Awarded to: Gregory C. Glynn, of the Class of 1962.
THE O'CONNOR DEBATING PRIZE

The Joseph J. O'Connor Purse, income on $1,000 the gift of the late Joseph J. O'Connor of the Class of 1909.

Awarded to: Timothy J. Dacey and Robert E. Shields, of the Class of 1964.

THE MRS. KATE C. POWER MEDAL

The Mrs. Kate C. Power Medal, founded in 1942 by the will of the late Mrs. Kate C. Power to be awarded to the highest ranking student in the College of the Holy Cross in the Bachelor of Arts (with Honors) Course in the Sophomore year.

Awarded to: Timothy J. Dacey and Jon A. Ruppe, of the Class of 1964.

THE PURPLE PRIZE

The Purple Purse, the gift of the College, to be awarded annually to the student contributing the best poem to "The Purple."


THE REVEREND JOHN F. REDICAN PRIZE

The Reverend John F. Redican Medal, donated by a friend in memory of the Reverend John F. Redican, '78, awarded annually to the Junior (Honors Course) with highest rank in Philosophy.


THE REILLY MEMORIAL PRIZE

The James H. Reilly Memorial Purse, the income on $600, founded by Joseph J. Reilly of the Class of 1904 and immediate relatives, to be awarded annually to the student contributing the best short story to "The Purple."

Awarded to: Vito H. Acconci, of the Class of 1962.

THE FREEMAN M. SALTUS PRIZE

In memory of Freeman M. Saltus, awarded for excellence in essays on labor or economics.

Not awarded in 1962.
THE STRAIN PHILOSOPHY PRIZE

The Strain Gold Medal founded in June, 1877, to be awarded annually for the best essay on a subject selected from the field of philosophy.

Awarded to: Thomas A. King, of the Class of 1963.

THE LIEUTENANT WILLIAM PETER SULLIVAN, JR. MEDAL

The Lieutenant William Peter Sullivan, Jr. Medal, the gift of Mrs. William P. Sullivan, Jr., in memory of her late husband, Lieutenant William Peter Sullivan, Jr., U.S. Naval Reserve, of the Class of 1939, to be awarded annually to the member of the varsity track team who, by vote of his fellow team members, is adjudged to have merited this award.

Awarded to: Kevin P. Kilgallen, of the Class of 1962.

THE VARSITY CLUB NORTON PURSE OR MEDAL

For an athlete in the Bachelor of Arts Curriculum. (Income on $500.00)

Not awarded in 1962.

THE WORCESTER COUNTY ALUMNI SODALITY OF OUR LADY MEDAL

Awarded to the member of the Students’ Sodality chosen as the outstanding sodalist of the year.

Awarded to: Albert J. Blanchard, of the Class of 1962.

THE JOHN E. WICKHAM MEMORIAL PRIZE

The John E. Wickham Gold Medal, founded in 1939 by Mrs. Nicholas Wickham of Lee, Massachusetts, in memory of her son, The Reverend John E. Wickham of the Class of 1899, to be awarded annually to the highest ranking student of the graduating class.

Awarded to: Gregory C. Glynn, of the Class of 1962.
College Organizations

THE AQUINAS CIRCLE

The Aquinas Circle is an organization of Seniors interested in further study and discussion of philosophical problems and their correlation with modern thought in science and literature. The Circle meets twice a month, and presents a symposium annually on the Feast of St. Thomas Aquinas.

THE BIOLOGY SOCIETY

The Biology Society, composed mainly of pre-medical and pre-dental students, provides its members with an insight into the professions of medicine, dentistry and pure biological research, with a series of lectures. Prominent speakers from the New England area deliver these bi-monthly lectures. The Society also provides its members with an opportunity to have superior papers published in The Biology Journal, its literary publication.

THE B.J.F. DEBATING SOCIETY

Named in honor of the Most Reverend Benedict Joseph Fenwick, the founder of Holy Cross College, the B.J.F. Debating Society was organized in 1846, and has nurtured a tradition of excellence in the art of public speaking. Students develop the talent to express their ideas fluently and logically, through an extensive program of intra-mural debating, guest speakers distinguished in the field of the national debate topic and intercollegiate debate tournaments. Individual guidance is offered to the novice in the intramural program. The B.J.F. annually sponsors the Bishop Healy High School Debating Tournament in the interest of promoting forensics in both the public and parochial secondary schools of the New England-New York area. Exhibition debates are conducted before social and cultural groups, neighboring high schools and colleges. Membership in the B.J.F. Debating Society is open to any student in the college.

THE COLLEGE CHOIR

The College Choir was organized to assist at Chapel Services and to promote devotion by acquainting students with the treasury of Church music.

THE CONFRATERNITY OF CHRISTIAN DOCTRINE

The Confraternity of Christian Doctrine is a student teacher's unit. The purpose of the Confraternity is "to bring Christ to youth and to bring youth to Christ." Holy Cross students conduct religious doctrine classes for grammar school boys and girls and for high school students. Adult discussion classes are also conducted every week as well as classes for student nurses and other professional groups.
THE CROSS AND CRUCIBLE CHEMISTS’ CLUB

This club is devoted to the advancement of chemistry and the development of social and professional relations among its members. The club was founded in 1927 and reorganized in 1947. It is open to all undergraduate students of chemistry. The club is a Chapter of Student Affiliates of the American Chemistry Society and publishes The Cross and Crucible, a quarterly chemical magazine for undergraduates.

THE CROSS AND SCROLL SOCIETY

The Cross and Scroll Society, originally formed as the Hellenic Academy for the promotion of interest in classical studies, has through the years expanded its aims to include topics of Literature, Art and General Culture. Besides its group meetings the Society sponsors public lectures pertinent to Christian Culture and Education. The Cross represents Christianity, and the Scroll, the body of ancient classical literature.

THE DRAMA SOCIETY

The Holy Cross Dramatic Society aims at offering the student body a chance to participate in and to see the finest dramatic works in the history of world theatre. Each year members present performances of plays from the theatres of Ancient Greece, Medieval Europe, Elizabethan England and Twentieth Century America.

The Society also engages in a Freshman Apprentice Program.

ECONOMICS CLUB

Organized in 1960, the Economics Club hopes to instill in its members both the willingness to confront the complexities of modern economic problems and the ability to pose and weigh alternatives to the questions of economic policy. Meeting every other week, members of the club present papers on topics of interest to the group. On occasion, faculty members from Holy Cross and other institutions are invited to participate in the discussions.

THE HISTORY ACADEMY

The History Academy has for its object the increase of interest in the study of history. It holds bi-weekly meetings at which various historical subjects are discussed.

THE INTERNATIONAL RELATIONS CLUB

This club has for its purpose a thorough understanding of the principles that motivate states in their conduct with one another. It seeks a deep knowledge of the causes that produce international tensions. Its practical objective is to be able to offer a sound policy or policies that can bring about international peace.

THE INTERRACIAL JUSTICE CLUB

The Interracial Justice Club was organized in 1951 to promote better understanding of the Catholic attitude toward contemporary racial problems.
INTRAMURAL ATHLETICS

Perhaps the most flourishing and popular extra-curricular activity on the Hill is the Intramural athletics program. The great majority of students who are not engaged in varsity competition take some part in intramural sports. Teams are organized. Competitive tournaments are played in outdoor and indoor sports.

THE JOHN COLET SOCIETY

The John Colet Society aims to bring together all those students interested in teaching and education as a possible career choice. It sponsors occasional public lectures by invited guest speakers as well as lectures by faculty members on various aspects of education. Further, it tries to provide contacts on a more or less social level with educators, and it provides occasion for the discussion of books of interest to the future teacher. Both secondary and college teaching come under consideration.

THE LABOR PROBLEMS ACADEMY

The Labor Problems Academy, open to students majoring in Economics, was organized in 1935 to encourage the study of Catholic principles applicable to the labor problems in the United States. This academy was organized with a threefold purpose: to stimulate personal research and individual interest in the historical development of, and contemporary relationship among capital, management, labor, and the community in these problems; to obtain and classify scientific and unbiased pamphlets, periodicals, and similar reference materials for use by the Faculty, members of the debating societies and lecture teams, members of the Academy, and other undergraduates interested in these problems; to engender an appreciation of the pronouncements upon the moral relationships between capital and labor contained in Papal Encyclicals.

THE LEAGUE OF THE SACRED HEART

The League of the Sacred Heart was established at the college on the first of November, 1888. It has ever since been a most efficacious means of propagating among the students the practice of a most tender devotion to the Sacred Heart of Our Lord.

THE MATHEMATICS CLUB

The Mathematics Club, established in 1946, holds meetings twice monthly to discuss topics in an advanced undergraduate mathematics. The purpose of the club is to promote the study of pure and applied mathematics.

THE MISSION UNIT

The Holy Cross Unit of the Mission Crusade was established in 1921. Relief of the Missions is encouraged by donations of the students. Students contribute to foreign and home missions large sums of money, quantities of Catholic papers, and books.
THE MUSICAL CLUBS
Two separate organizations foster and develop musical talent among the students—the College Glee Club and the College Orchestra and Band.

OUTING CLUB
The Outing Club is one of the larger organizations on the campus. Its purpose is to develop a strong bond of friendship between its members and the members of other collegiate outing clubs by means of common athletic and social activities.

THE PHYSICS SOCIETY
The Physics Society, composed of students majoring in physics, has for its purpose the development of deeper and wider interest in that subject. Meetings are held bi-weekly. Speakers from the faculty, student body and industry discuss aspects of pure physics or its applications.

POLITICAL CLUBS
One of the objects of a liberal education has been the formation of the "good citizen." To effect this aim, political clubs representing the Democratic and Republican parties have been inaugurated. An enlightened participation in such clubs is calculated to make the student aware of the complexities and subtleties of our system of government by the people. The immediate aim of these clubs is to stimulate interest, develop capacity and encourage participation of "better minds for better politics."

THE PURPLE KEY
It is the purpose of this organization to foster devotion, loyalty, and enthusiasm for Alma Mater. The Purple Key sponsors student activities, plans and conducts student manifestations of the spirit of Mount St. James and always endeavors to promote the interests of the students in the affairs of their college life.

RADIO STATION WCHC
The Campus Radio Station WCHC, which began a formal broadcasting schedule on December 6, 1948, is operated entirely on an extra-curricular basis by student members of the Radio Workshop. WCHC provides a talent outlet and radio experience for hundreds of students in its various departments: station management, programming, production, announcing, radio dramatics, sports, news, writing, music, commercial departments and other functions common to commercial radio stations.

ST. JOHN BERCHMAN'S SANCTUARY SOCIETY
The St. John Berchman's Sanctuary Society has for its object the fostering of a special devotion in the assisting at the altar in all religious ceremonies.
THE ST. THOMAS MORE SOCIETY

The St. Thomas More Society is open to all who are interested in a future career in the law. Through lectures and discussions by lawyers, professors and deans of law schools, students gain both a theoretical and practical knowledge of the profession of law.

THE SEMPER FIDELIS SOCIETY

The Semper Fidelis Society has as its purpose the preparation of students as future officers in the U.S. Marine Corps and for their eventual entry into active service.

THE SODALITY OF OUR LADY

The Sodality of Our Lady was organized on the eighth day of December, 1844, and aggregated to the Roman Prima Primaria on the tenth day of April, 1846, with the title of the Immaculate Conception, and under the patronage of St. Aloysius. The Sodality has for its object the realization of the fullness of the Christ-life through Mary, by means of the solemn consecration of its members, and their active dedication to the “way of life” of their Christian Baptism.

STUDENT CONGRESS

Students are encouraged to organize and conduct their own activities with as much independence as is consistent with good order and sound educational policy.

The Student Congress is composed of elected representatives and officers of the student body whose purpose is to act as the official representative of the student body; to receive and express student opinion; and to advance the best interests of the student body with the administration and faculty, and with other educational institutions and associations.
HOLY CROSS ATHLETIC ASSOCIATION

The object of the Athletic Association is to promote the athletic interests of the college, and to discuss and determine matters of the management pertaining to the welfare of collegiate and intercollegiate sports.

Eugene F. Flynn, B.A. ........................................ Director
Joseph W. McDonough, B.S. .................................. Business Manager
Paul N. Johnson, B.A. ......................................... Director of Sports Information
Edward N. Anderson, B.S., M.D. ............................... Coach of Football
James M. Harris, B.S. ........................................ Assistant Coach of Football
Melvin G. Massucco, B.S. ....................................... Assistant Coach of Football
Harry William Connolly, B.S. ................................. Assistant Coach of Football
Frank A. Oftring, Jr., B.S. .................................... Coach of Basketball
Robert T. Curran, B.S. .......................................... Assistant Coach of Basketball
                   Freshman Baseball Coach
Albert D. Riopel, B.A. ......................................... Varsity Baseball Coach
                   Assistant Coach of Football
Bartholomew F. Sullivan ........................................ Coach of Track; Trainer
Thomas F. Duffy, B.A. .......................................... Assistant Coach of Track
Philip E. O'Connell, Ph.B. .................................... Coach of Lacrosse
Nicholas B. Sharry, B.A. ........................................ Coach of Tennis
Charles F. Donnelly ............................................ Coach of Golf
William C. Samko, B.S., M.S. ................................. Assistant Trainer; Equipment Manager
Walter M. Mulvihill, B.A., M.D. .............................. Physician
Francis H. Carr, B.A., M.D. .................................... Physician
Honor Societies

ALPHA SIGMA NU
(Holy Cross Chapter)

Alpha Sigma Nu is a National Honor Society with chapters in various Jesuit Colleges and Universities throughout the United States. It is a society organized to honor students who have distinguished themselves in scholarship, service and loyalty to their College; to promote the interests of their College; to foster all praiseworthy student activity; to unite those alumni who most fully understand and appreciate those ideals in themselves and others.

The following new members were elected to the Holy Cross Chapter on February 16, 1963.

Peter J. Carton '63
Joseph J. Delfino '63
James F. Holloran '64

Daniel M. Murtaugh '63
Robert E. Shields '64
Christian K. Zacher '63

DELTA EPSILON SIGMA
(Alpha Iota Chapter)

Delta Epsilon Sigma is the National Scholastic Honor Society for Catholic colleges and universities. It was founded to recognize academic accomplishments, to foster scholarly activities, and to provide an intellectual meeting ground for its members. The Delta Epsilon Sigma Bulletin, a scholarly quarterly, is the official organ of the Society.

The chapter at Holy Cross (Alpha Iota) is largely a faculty chapter, although some students are elected to membership each year. Officers for 1962-63 are: Dr. William E. Hartnett, President; John D. O'Connell, Secretary-Treasurer.

The following students were elected to the Holy Cross Chapter of the Delta Epsilon Sigma Honor Society in 1962:

Vito H. Acconci
Donal B. Barrett
Francis W. Bernet
Raymond J. Cannon
Richard N. Castonguay
Frederick C. Christie
David J. Driscoll
Anthony D. Fanning

Arthur V. Guarino
Carl T. Kallina, Jr.
Richard Kempezinski
Peter O. Kwiterovich, Jr.
Robert P. Marshall
J. Paul McGrath
Joseph T. O'Connell
Donald M. Palatucci
College Publications

THE ALUMNUS

The Alumnus, published quarterly by the Holy Cross College Alumni Association and edited by the Office of Public Relations, has as its purpose the preservation of the bond of unity among the college's graduates and the strengthening of the nexus between the alumni and the college.

THE BIOLOGY JOURNAL

The Biology Journal is published annually by the members of the Biology Society. It offers pre-medical, pre-dental and Biology students an opportunity to have superior papers published.

THE CROSS AND CRUCIBLE

The Cross and Crucible is normally published four times a year by the Department of Chemistry. It provides a medium of scientific expression for chemistry students; it records work of a progressive nature done in the department; it supplements the textbooks with timely articles of general interest to the student of chemistry; and it records the abstracts of departmental seminars and theses.

THE CRUSADER

The Crusader, the weekly newspaper of the college, has been published since 1924. Its purpose is twofold: to train interested students in the art of journalism; and to secure a firmer bond among undergraduates and alumni through reporting and commenting upon the important events on and beyond the Hill.

THE HOLY CROSS PURPLE

The Holy Cross Purple is a quarterly magazine published by the students of the college. Its aim is to cultivate a high literary taste among the students by exercising them in both critical and creative compositions.

THE PURPLE PATCHER

The Purple Patcher, published annually by the Senior Class, is a chronicle of the activities of the Class during its four years' stay at Mt. St. James.
<table>
<thead>
<tr>
<th>State</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>Spring Hill College, Spring Hill</td>
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<td>California</td>
<td>Loyola University of Los Angeles</td>
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<td>Seattle University, Seattle</td>
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<td>West Virginia</td>
<td>Wheeling College, Wheeling</td>
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<tr>
<td>Wisconsin</td>
<td>Marquette University, Milwaukee</td>
</tr>
</tbody>
</table>

146
Appendix

DONORS TO THE LIBRARY

1962

AFL-CIO
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Elwin Sterling Greene
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of Business Administration
Health Insurance Institute
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Holy Cross College—Class of 1949 Fund
Holy Cross College—Class of 1953,
(In memory of Rev. Clarence Sloane,
S.J., ’18)
memory of Rev. Clarence Sloane, S.J., ’18)
Holy Cross College—Class of 1954,
(In memory of Rev. Clarence Sloane,
S.J., ’18)
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Industrial Relations
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Union
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New York Port of Authority  
New York State Labor Relations Board  
New York State University  
Northeastern University  
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Patrick F. O'Connor, '32  
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Miss Kathryn Power  
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Alfred C. Proulx, '36  
John E. Ratigan, '19  
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Henry Regnery Company, Publishers  
Philip Reidy, '41  
Robert Reidy, '37  
Rt. Rev. Msgr. John F. Reilly, '11  
Rice Institute  
Rotary Club, Worcester  
St. Alban's School  
St. Vincent de Paul Society, Worcester  
(In honor of Francis L. Miller)  
Paul A. Schweitzer, '58  
James P. Slattery  
Slavic Institute  
Alfred P. Sloan Foundation  
Mrs. John Sloan  
Harold S. Smith  
Smithsonian Institution  
In memory of James H. Snyder, '53 Fund  
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Foster Stitens Fund (In memory of  
Rev. Clarence Sloane, S.J., '18)  
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Virginia Commission of Constitutional  
Government  
Virginia University  
John W. Walber, '47  
Vincent Walsh  
Mrs. Dorothy Wayman  
Miss Mary P. White  
Carroll Wiseman  
Worcester Art Museum  
Worcester Free Public Library  
World Rule Center of Law  
Yale University Graduate School  
Major Robert E. Young, USMC
Bequests

Gifts to the college may take the form of funds for the establishment of scholarships or professorships; or the foundation of methods and other prizes; of additions to the material equipment; of contributions to the general fund, or may be undesignated. Those desiring to make a bequest to the College of the Holy Cross in their wills may be helped by the following suggested form.

Legal Form of Bequest

I give (devise) and bequeath to the Trustees of the College of the Holy Cross, a corporation under the laws of the Commonwealth of Massachusetts, and located in the City of Worcester, Massachusetts, and their successors forever, the sum of

........................................................................................................ Dollars

(or otherwise describe the gift) for its general corporate purpose (or name a particular corporate purpose).
Index

Academic Calendar, 6
Academic Failure; Probation, 59
Academic Information, 55
Acceptance Deposit, 52
Accident Insurance, 32
Act of Incorporation, Inside Cover
Administration, Officers of, 8
Admission to College, 50
Advanced Placement and Standing, 52-53
Advisors for Students, 34
Affiliations, 28
Air Force ROTC Unit, 36, 95
Air Science, Department of, 95-96
Alpha Sigma Nu, 144
Alumni Placement Bureau, 35
Alumnus, The, 145
Astronomy, Course in, 111
Athletic Association, 143
Athletics, Intramural, 140
Attendance at College Exercises, 55
Awards, Graduation, 125-131
Scholarship, 40-49

Bachelor of Arts, 64
Bachelor of Science, see Degrees
Bequests and Legal Form, 149
Bills, College, Payment of, 37
Deferred Payment of, 37
Biology, Department of, 69-70

Calendar, 7: Academic, 6
Campus and Buildings, 30-31
Chapel, 31
Chemistry, Department of, 71-74
Undergraduate Courses, 71-74
Graduate Courses, 119-121
Choir, 138
Class Hours, 55
Classics, Department of, 75-78
Clubs, Music, 141
Coches, Athletic, 143
College, History of, 23-25
College Organizations, 138
College Year, 55
Commissions, Navy, Marine, Air Force, 130-131

Committees, Faculty, 10-11
Communications Directory, 152
Conditional Failure, 60
Correspondence, Admission, 50
Counseling Services, 33
Counselors, Student, 10
Course, Changes, 60
Courses of Instruction, 69-121
Credit Hours, 55
Curriculum, 69-121
Curriculum Changes, 60
Curriculum Requirements, 64-68

Debating, 138

Degrees:
Bachelor of Arts, 64
Bachelor of Science in Biology, 65
Bachelor of Science in Chemistry, 65
Bachelor of Science in Economics, 67
Bachelor of Science in English, 68
Bachelor of Science in Mathematics, 66
Bachelor of Science in Physics, 66
Bachelor of Science in Social Sciences, 68
Master of Science in Chemistry, 119

Degrees Conferred—1962, 125-131
Delta Epsilon Sigma, 144
Dinand Library, 32
Discipline, System of, 28
Donors to the Library, 147-148
Dormitory Accommodations, 35

Early Admission Plan, 52
Economics, Department of, 79-82
Education, Department of, 83
Educational System, 26-28
Employment, Student, 32
English and Fine Arts, Department of, 84-87

Entrance Requirements, 50
Ethics, Courses in, 107
Examinations:
    Conditional, 60
    Entrance, 50
    Oral, 62
Expenses, College, 37-38
Extra Courses, 60
Faculty:
- Committees of, 10
- Officers of Administration, 8
- Officers of Instruction, 11-22

Fees, College, 37-38
- Acceptance, 38
- Boarding Students, 37
- Late Registration, 38
- Payment of Bills, 37
- Special, 38
- Tuition, 37

Fellowships in Chemistry, 121

Fine Arts, Courses in, 87

Foreign Study, 61

French, Courses in, 101

General Services, 32-36

Geology, Courses in, 112

German, Courses in, 103-104

Graduate Studies Advisor, 35

Greek, Courses in, 75-77

Language Laboratory, 35

Health:
- Certificate of, 50
- Services, 32

History, Courses in, 88-90

History and Political Science, Department of, 88-91

History of the College, 23-25

Honor Grades, 56

Honor Societies, 144

Hons Program, 58

Infirmary, 32

Information, Academic, 55

Institutes, 28

- Summer, in Mathematics (1962), 122
- Summer, in Biology, Chemistry and Physics (1962), 123-124
- Summer, in Modern Languages, 124

Instruction, Courses of, 69-121

Instruction, Officers of, 11-22

Intramural Athletics, 140

Insurance, Accident, 32

Italian, Courses in, 104

Jesuit Educational Association, 146

John Colet Society, 140

Junior Year Abroad, 61

Language Requirement:
- for Admission, 50-51
- for Degree, 62

Latin, Courses in, 77-78

Library, Dinand, 32; O'Callahan, 33

Library, Donors to, 147-148

Loans to Students, 49

Logic, 106

Master of Science Degree, 119

Mathematics, Department of, 92-94

Mathematics Summer Institutes, 122

Mechanics, Courses in, 112

Medical Care, 32

Medical Certificate, 50

Military Science, Department of, 95-100

Modern Languages, Department of, 101-105

Modern Languages Summer institutes, 124

Music, see Fine Arts, 87, Clubs, 141

Naval ROTC Unit, 36-96

Naval Science, Department of, 96-100

O'Callahan, Library, 33

Officers of Administration, 8

Officers of Instruction, 11-22

Organizations, 138-142

Orientation Program, 52

Payment of Bills, 37

Philosophy, Department of, 106-110

Physics, Department of, 111-113

Placement Bureau, 35

Political Science, Courses in, 90-91

Pre-Professional Preparation, 63

Presidential Scholarships, 40

Probation, Academic, 59

Psychology, Courses in, 109

Publications, 145

Public Presentations, 63

Reading Clinic, 34

Registration, 52

Religious Training, 27

Requirements for Advancement, 57
COMMUNICATIONS DIRECTORY

Correspondence should be addressed to the college officials listed below and mailed to College of the Holy Cross, Worcester 10, Massachusetts.

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Alumni Affairs ............................................................. Alumni Executive Secretary
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Development Program ..................................................... Director of Development
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Financial Affairs .............................................................. The Treasurer
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The College telephone number is 791-6211, connecting all departments.