The
Highlander
Edition
NEWARK COLLEGE OF ENGINEERING
You have made adjustments ever since the day you were born and you should be able to make this new transition from college to the working world and society without undue difficulty. That you may have some adequate signpost to guide you on your road, I refer you to the "Engineer's Oath" to which you have subscribed during your commencement exercises.

The Oath consists of four sections. The first section stresses your obligations as an engineer to act for the benefit of mankind in using nature's vast material reservoirs and her latent energies. The second emphasizes the importance of your holding high the traditions and heritage of the engineering profession while at the same time giving a helping hand to others in the profession who will follow you. The third paragraph pertains to the necessity of your rendering to your fellow man and your communit, without thought of material recompense, such services as will be for the greatest public good. The final paragraph deals with the all important subject of our moral obligations and integrity.

If you will keep the "Engineer's Oath" constantly in mind and make every effort to live up to its high principles, I am sure that the transition from college to industry and society at large will be a most successful one for you and that you will find success, happiness, and a real purpose in life.
An outstanding event of the past year was the presentation to Dr. Allan R. Cullimore, President Emeritus of the Newark College of Engineering, of the highest national honor in the field of engineering education, the American Society for Engineering Education's Lamme Medal for 1951. Bestowed annually, the Lamme Medal is awarded to a distinguished engineering educator for excellence in teaching and contributions to the art of teaching, contributions to research and technical literature, achievements which contribute to the advancement of the profession, and engineering administration. This is the first time the medal has been presented to an educator in the New York-New Jersey area.

This monumental personal achievement is significant in the ascendancy to national eminence of the College, with its impact on the students, faculty, and alumni. The Class of 1952 points with pride to the professional contributions of Dr. Cullimore as an inspiration to the graduates and undergraduates of the Newark College of Engineering.
DEAN OF ADMINISTRATION

Education has subjected you to a barrage of ideas, information, methods, and pleas to “think” and now you face the great mysterious, wonderful thing constantly referred to as “industry” — or perhaps just “the future.”

At this point I am like an athletic coach; I can only pat your shoulder and send you into what may be your first contest, then pray that you have grasped enough knowledge and learned the rules of the game sufficiently well to sustain our pride in you and your own self-confidence.

Each graduating class is to us a wonder and a fear. It is wonderful to see the growth and maturation, the professional ascendancy, but we are fearful that we may not have done our complete and our best work. Then we look at the past and know that the future will hold its own.

Congratulations and our good wishes for a successful future.
Dean Grammer is interested in the whole student body both as individual men and as students. His never-tiring efforts coordinate class and social affairs. In regard to extracurricular activities he says: "The student who participates in extracurricular activities learns to know and understand his fellow students and the faculty. This knowledge gained outside the classroom enriches his training, often to the extent of improving his academic record. Similarly we find that in Through Engineering Eyes, John E. Teeple, noted chemical engineer, states that the young engineer who is willing to assume responsibilities beyond the narrow limits of his job will have no complaint regarding pay or promotion. The inference follows that such an individual is likely to be successful in adjusting himself to the complexities of life in all its aspects."
"That indispensable man behind the scenes" truly describes our class adviser. Our problems were never too small for Mr. Swanson to spend some time to give either sound advice or encouragement. In his duties as Director of Physical Education, Mr. Swanson has probably been confronted by the students with more personal problems than the Guidance Department.

Receiving his Bachelor's degree from Panzer after service in the Army, Mr. Swanson continued his education while helping us at N.C.E., and earned his Master's in Education at Rutgers. He is currently pursuing his doctorate at New York University.

Mr. Swanson's few years here have encouraged increasing participation in intramural basketball, bowling, badminton, and softball leagues. The dance and wrestling clubs owe their very foundations to this quiet but fertile and imaginative worker.

A firm believer in knowing the students to whom he is adviser, Mr. Swanson has guided and attended every class activity, quietly and efficiently, causing our fellow classmates to become more responsible and to participate more enthusiastically in the class activities.
It is important to know that when difficulties arise there is always someone to whom to turn. The *Nucleus* staff had just such a person in Dr. Pitman. He set aside his duties, personal problems, and spare time to insure the success of our venture. It was he who looked after all the little details that go into the making of a piece of literature.

Through his efforts we have tried to bring to each member of the Class of 1952 an event that will recall to mind the four years that we spent together. We hope that in later years you will pick up this volume and in it see the bewilderment of the freshman year, the confusion of the sophomore year, toil of the junior year, the surge of the senior year, and the good times of every year. If you see all of these and if you wish to thank someone for the warm feeling that they bring to you, the person who worked long hours to make this book possible and who merits our thanks is Dr. Pitman.
The Class Council is composed of two representatives from each section in the class. It was organized under the leadership of Bernard Keach, our first class president. During the latter part of the Freshman year Mr. Swanson, the newly appointed physical-education instructor, became the class's faculty adviser.

The purpose of the Council is to represent the class in all matters concerning the class as a whole, from creating better relationship between the students and the faculty to organizing its social functions.

The class progressed in spirit and unity through the Sophomore and Junior years under Presidents Al Rehling and Joe Harris, respectively. Our first class picnic was held at the end of the sophomore year, as all of us remember. The Junior Formal climaxed the social calendar of our third year at college. Thus, Walter Smith, the senior president, had behind him an organized, activated class which made the final year at school the best of all.

Every member of the Class of 1952 wishes to express its sincere appreciation to all of the class officers, its adviser Mr. Swanson, and the Class Council for providing it with the dances, picnics, smokers, and the moonlight sail which have made the whole four years at N.C.E. so pleasant and memorable.
NUCLEUS STAFF

Co-Editors ............... John Hayduk
                        Donald F. Rinald

Layout .................. Arnold Unger, Editor
                        Charles Yust

Photography .............. William Sode, Editor
                        Louis Bohn
                        William Rose

Art ....................... Edward Staniszewski, Editor
                        Renato Rampi
                        Kenneth Reiman
                        Walter Stadlin
                        John Wiegand

Seniors ................... Hugo Casatelli, Editor

Special Features ........ Louis Kamentsky, Editor

Fraternities ............. Max P. Hitchmann

Professional Societies ... Edward Rogers

Sports and Clubs ......... William Dunham, Editor
                        William Clarke
                        James Cunningham
                        Frank Hall
                        Charles Hoffman
                        Walter Smith

Night School .............. Robert Emery
                        Edward Adams
                        John Zalewski

Business Staff ............ Lothar Kunert, Manager
                        John Albright
                        Elvin Greene
Around the Campus
"Get your unprofessional — off the table."

The Professors, Quote and Unquote

James A. Bradley, A.B., A.M.
"You can solve this problem if you can find the vapor pressures, which usually you cannot, but you do not need them if you do it my way."
Carl W. Carlson, B.A., M.S., Ph.D.
"That's freshman chemistry."

Michael Frederick, B.S., M.S.
"You guys are always trying to get away with something."

Joseph Joffe, A.B., B.S., M.A., Ph.D.
"We seem to have lost a B.T.U. somewhere."

George C. Keeffe, B.S., Ch.E., M.S.
"Who's our expert for today?"

Jerome J. Salamone, B.Ch.E., M.Ch.E.
"The schedule left a choice between going to church and taking a bath on Sunday mornings."
Acid Test of the chemicals

As wide-eyed, awe-struck freshmen we were led into the mysterious realm of chemistry via Dr. Branin's "college level" Freshman Chemistry lectures. These fascinating hours included demonstration experiments visible only to the first six rows of the class. Oddly enough, only the fellows in the last six rows managed to pass the quizzes.

Our sophomore year found us separated from the rabble, attending courses in quantitative and qualitative analysis specially prepared in our honor. We were to a roomful of unique analytical balances sensitive enough to indicate the weight increase of a sample after ten hours of intense drying. We were also given the rare opportunity to experience that indescribable wave of hopelessness that comes crushing down on your shoulders as you stand in the qual lab, watching the last particles of the precipitate you should have saved drip slowly down the drain. Our knowledge of chemistry may not have increased tremendously in the sophomore year, but we did enter the junior year saturated with facts regarding Ivorydale, Cincinnati, and rat tumors.

Our junior year was highlighted by our "appreciation of organic chemistry" course. The Organic Lab provided an opportunity to study reactions catalyzed by mercury, and gave practical experience in putting brown spots on ceilings.

The senior year found us piling six cubic feet of glassware into five cubic feet of locker space. Using this equipment, in only four months we were able to convert two kilos of C. P. reagents into ten grams (wet) of tar (Tech.). The climb to the Phys Chem Lab caused many of the older seniors to drop the course. It was here that we determined the corrections to be applied to the International Critical Tables; one group discovered a rare isotope of carbon tetrachloride with a molecular weight of 167. Few of us will ever forget Mr. Furmadge, whose job it is to curse at the pumps and the engineers. Neither of them work.

In our plant-design course we received the equivalent of ten years' industrial experience: three years at the Chemical Industries Exposition, five years on our trip to Rochester, twenty-three months from pamphlets, and one month from the lectures. Thus armed we march out to face industry. Can industry face us?
Bill's dry wit and ready humor lent a spark to many of our class discussions. His varied activities were Tau Beta Pi, ACS, AIChE, and intramural bowling. Al, a member of ACS, AIChE, "Technician" staff, Radio Club, and IRC, served as president of AIChE and section representative. He also participated in basketball, baseball, and bowling. Alex served as treasurer of the International Relations Club and was also a member of ACS and AIChE. His hobbies include tennis and violin playing. Jimmy's cosmopolitan air and winning personality will stand him in good stead. Among his activities are the ACS, AIChE, and intramural basketball. Joe was secretary of the ACS, a member of AIChE and International Relations Club, and participated in intramural bowling and softball.
Lou's claim to the name "Mr. Photography" is supported by his activities—photographer for *Nucleus*, photo editor of the Technician, vice-president of the Photo Club. He is also a member of ACS, AIChE, and Dance Club . . . George, a National Guardsman, was vice-president of IRC, a member of AIChE, ACS, and participated in intramural basketball and bowling . . . Bob's easy, quite, assured manner gained him many friends. He is a member of AIChE and Sigma Pi . . . John, an avid Giant fan, is an amateur mineralogist and gem cutter. An outstanding scholar, he finds that math is his forte . . . Dave was treasurer of AIChE, section representative, a member of the Dance Club, Rifle Club, and Table Tennis Club. He participated in intramural basketball and softball . . .

**JOHN ERIC CARLSON**
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Montclair, N. J.

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**GEORGE R. BRADBEE**
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**ROBERT C. BURNHAM**
404 So. Washington Avenue
Bergenfield, N. J.
Bill has been endowed with a large measure of perseverance, a very important quality for an engineer. He was a member of the varsity tennis team and the Dance Club. The class comedian, Dom, provided ad libs to cheer many a dull class. He was co-chairman of the Junior Formal, section representative and played intramural basketball and softball. Don combines the best qualities of the chemist and engineer. He showed keen interest in all ACS and AIChE activities. John F. was a member of the ACS, AIChE, and the Glee Club. His hobbies include fishing and philately. John’s ready smile and pleasing personality have won him many friends. He was section representative, secretary of the Freshman Class, and participated in intramural softball and basketball.
"A friend in need is a friend indeed." What better caption could be given to amiable Ernie? A member of ACS, AIChE, he participated in intramural softball . . . Wells, a member of the ill-fated Senior Smoker Committee and vice-president of ACS, relaxes playing golf . . . Never a dull day in the lab when Elvin is in high gear. Active in Tau Beta Pi, class council, Nucleus staff, ACS, and AIChE, a fiend for math and theory, he is a development man at heart . . . A nautical chemical, Marty was vice-commodore of the Yacht Club, a member of ACS, AIChE, and Dance Club. He took part in intramural bowling and softball . . . Ralph's vitality was untiring although he led a double life, working full time and attending school. He took and active interest in the AIChE, ACS, and Phi Beta Tau.

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16 Revere Avenue
Maplewood, N. J.

CHARLES EDWARD HOFFMAN
91 Bergen Avenue
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ORVILLE JOHNSON
75 Belgrove Drive
Kearny, N. J.

SANFORD M. KRUSCH
131 Lehigh Avenue
Newark, N. J.

Usually Dick could be found in the commons working hard on a slam. Philately and major league baseball were reduced to minor passions . . . Laughter and Charlies were synonymous in the halls of N.C.E. He served as president of ACS and V.P. of Dance Club. Tau Beta Pi, Omicron Delta Kappa, AIChE, varsity basketball and intramural softball are among his other activities . . . Orville, a member of ACS and AIChE, aspires to a position on the sales division of a large chemical concern . . . Richard, a treasurer of Sigma Pi, and Initiation Chairman of Tau Beta Pi, was active in AIChE, intramural basketball, interfraternity council bowling and softball . . . Sandy will always be remembered for his friendliness, competence at the bridge table, and his talent for organic chemistry.
Art, a regular guy, a diligent student, a great basketball player, and the keeper of some of the neatest organic notes yet seen at N.C.E. . . . Al has two things he will always cherish: a girl named Margy and his lunch. His activities include the ACS, AIChE, Dance and Golf Clubs, and intramural softball . . . Pleasant and soft spoken, Bill is a quiet, conscientious lad who also believes that work should be mixed with a little pleasure . . . Bob's sense of humor will always be remembered by his classmates. His quips kept his brothers in Phi Beta Tau laughing throughout many a lunch time . . . Dick was active in the IFC, served as its basketball director, and sports editor of the IFC newspaper. Other activities include section representative, varsity table tennis, and Phi Beta Tau . . .
Bill worked as a maintenance man three nights a week and probably knows more about the nooks and crannies of N.C.E. than anyone in the class . . .

Don, co-editor of the "Nucleus," served as president and secretary of Phi Beta Tau, vice-president of Tau Betta Pi, treasurer of ACS, and a member of Omicron Delta Kappa . . . Friendly and cheerful, Dominick believes that hard play must follow hard work if life is to be enjoyed . . . Walt has a pleasing personality and was an all-around student. He was president of the Senior Class, treasurer of the Junior Class, member of Tau Betta Pi, Omicron Delta Kappa, and Dance Club . . . A happy and conscientious individual, George was commanding officer of the Arnold Air Society, a member of Alpha Sigma Phi, ACS, AIChE, and played intramural basketball.
Freddie's grin and carefree attitude were a welcome contrast to the worried, haggard faces seen about school. He majored in intramural basketball ... Herb was full of fun at all times, always ready with a good story or joke. He was a member of ACS, AIChE, Fishing Club and played intramural basketball and baseball ... Ed's desire is to see his doctorate hanging in the Unit Ops Lab. He served as vice-president of AIChE, secretary of Tau Delta Phi, and member of ACS ... Of Don we may say that his presence was seldom heard yet strongly felt. His interests are ACS, AIChE, Phi Beta Tau, intramural sports ... A broadminded guy, Woody has clear cut opinions on life, engineering, and women. He was active in AIChE, ACS, Golf Club, and intramural basketball and softball.
Charlie’s quick wit and keen mind will earn him as high a place on the ladder of success as he has in the hearts of his classmates. He was cataloger for Tau Beta Pi and active in the AIChe. Cordes worked his way up through Esso’s organization at Bayway. He is unit foreman in the alcohol finishing operations. His pride and joys are “Chuck” and Patty Ann. George tempered the grind of night school with bowling and golf. He is employed as a superintendent at Lever Brothers. Co-author of a paper on the determination of sulfur in petroleum by X-ray absorption for the American Petroleum Institute, Charles Driesens’ future with the Standard Oil Development Co. looks as bright as his presence.
A member of the ACS and “Nucleus” Staff, Bob coupled a job at the Schering Corp. with an education at N.C.E. His work deals with process development in the manufacture of fine pharmaceuticals... Richard was graduated from night school while working as a chemist at Thomas A. Edison’s Storage Battery Division. He was a member of the Chess Club... Peter served as president of Delta Sigma Zeta Fraternity. He completed his education at night while working at the Heyden Chemical Co. John relieved the tempo of night school with model railroading and collecting phonograph records... Peter Z. is employed as a sales engineer with the International Nickel Co. Photography occupies his free time. He also enjoys skiing, bowling and swimming.

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65 Willet Street
Bloomfield, N. J.

JOHN JORDAN RANDOLPH
79 High Street
Montclair, N. J.

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41 Garden Drive
Roselle, N. J.

PETER GASPERINI
166 Union Avenue
Bloomingdale, N. J.
HENRY G. ZEIL, JR.
52 North Ashby Avenue
Livingston, N. J.

Henry contributed his share to the completion of the atomic bomb by working on radioisotope separation for the Manhattan Project. He is now occupied with technical sales problems in the dyestuff industry.

EDWARD A. ADAMS
157 North Hillside Avenue
Chatham, N. J.

In 1940, Edward Adams transferred to N.C.E. after two years at Newark University. His education was suspended for five years while he served in the Ordinance Dept. with the grade of Captain.

VICTOR M. A. THOMPSON
100 South Hill Road
Colonia, N. J.

Vic served in the Southwest Pacific Area as an aerial navigator and an intelligence staff officer. While completing his courses at night school, he was supervisor in the Antibiotic Manufacturing Division of E. R. Squibb and Sons.

"I'm the one wearing the hat, Mal"
Prof. William S. LaLonde, Jr., S.B., M.S.
Chairman

"I will say this; if the pressure goes out of your diving suit you will be extruded into the helmet."

DEPARTMENT OF CIVIL ENGINEERING

The Professors, Quote and Unquote

Frederick G. Lehman, B.C.E., S.M.
"Now, supposin' we . . . ."

Kenneth A. MacFayden, B.S.
"You have to accentuate the negative."

Richard D. Mangasarian, B.S., M.C.E.
"Now where were we before we digressed from the last digression?"

James S. Robbins, S.B., S.M.
"If I don't quit telling these stories, I'll pretty nearly believe them myself!"

Leonard Shapiro, B.C.E.
"________________" (lecture on Euler’s column theory).
It is a popular misconception at N.C.E. that the courses offered by the Civil Engineering Department require less student acumen than those of other departments. This absurd belief has absolutely no basis in fact as will be proved by considering minutely the nearly insurmountable difficulties encountered by student attempting to achieve his baccalaureate in Civil Engineering.

Surveying (CE-2A). This course taxed the students’ ability to the utmost. Certainly, playing three hours of baseball during a one-hour lunch period was by no means a simple task.

Soils Lab. (CE-4F). The students were compelled to commit gastronomical suicide by eating special dishes, notably a spaghetti and mud-ball dinner with capillary sauce and grated attarburg cheese.

Astronomy (CE-69). Exhausting nocturnal observations were made of heavenly bodies from the roof of Campbell Hall; similar observations were made from the balcony of the Empire Theater.

Structures (CE-00). This course required unique mental ability. It featured a field trip to Newark’s Penn Station, where students hung from plate-girder bridges while gleefully tapping rivets with their pointed heads. Flat-headed students not acrobatically inclined were summarily flunked.

Water Skiing (CE-1A). Undoubtedly the most difficult course offered because the mules which one instructor brought back from an Andes surveying expedition had become too old and decrepit to pull the would-be skiers with sufficient velocity across the large Campus West Pool; consequently, laborious weekends were spent learning the subject at such abominable places as Deal, Lake Mohawk, and Miami Beach.

Hydrology (CE-77). A very difficult course. However, it was extremely popular because of its Friday night extension class held in the La Rocca Tea Room, where the student had a first-hand opportunity to study the effects of saturation on his storage reservoir.

Materials Testing Lab. (CE-0.11). The students were forced to collect discarded bubble gum from theater seats, bar stools, catch basins, and primary sedimentation chambers to construct a reinforced concrete beam and confirm the instructor’s theory that “everything below the neutral axis is bubble gum.”
John helped lay the foundation for what was called the Hearts Club back in his sophomore year. He was also active in intramural basketball.

Ed's interest in engineering stems from his work in the armed service. He was active in the Dance and Rifle Clubs, secretary and treasurer of Tau Delta Phi fraternity... Dan was active in the ASCE, serving as secretary, and on the Barn Dance Committee. He was also Editor of the Surveyor and vice-president of the Hearts Club... "Back to Maine" is Bill's motto. If he takes his competitors hunting, the number of engineers may decrease, as Bill is known for his straight shooting in and out of the woods... Dick comes from the Iselin half of the Jersey City-Iselin axis. He has a twinkle in his eye and a nonchalant air, but don't be fooled, he is an engineer.
Hamilton, a stalwart on the fencing team and president of the AA, was one of the most active members of our class—ODK, ASCE, ROTC Cadet Colonel; a host of other activities indicate what we all know: Ham is a true leader . . . No matter how busy, Jim B. managed to find time to spend in the gym or to push a pin-ball machine. He played intramural basketball and softball, and was a member of the Hearts Club . . . Joe, a bowling enthusiast, was active in intramural basketball. His favorite haunt was the Varsity Shop . . . In four years at N.C.E., happy-go-lucky "Slippery Ed" has built many friendships. His motto is "Never Say Die." President of the Hearts Club . . . Jim C., active in intramural sports and the ASCE, relaxed by playing the piano.

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JAMES G. CUNNINGHAM, JR.
142 Kanouse Street
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RICHARD J. FLANIGAN
1 Woodlawn Avenue
Parlin, N. J.

Gerald Durstewitz
189 Hutton Street
Jersey City, N. J.

Soft spoken but determined, Jim gained fame as co-editor-in-chief of the Technician and president of Pi Delta Epsilon. His leadership abilities earned him recognition in ODK . . . Al came to N.C.E. with but one purpose in mind, to get an education. During his four years he found time to belong to the ASCE . . . Jerry was active in intramural bowling and the Rifle Club, and varsity member of the rifle team. He earned scholastic recognition in Tau Beta Pi . . . Don, an engineer with a mind to social pursuits, was a member of Pi Kappa Phi and the ASCE . . . At the drop of a hat Dick, the outdoorsman of our class, would pack up and go on a hiking or camping trip. While at N.C.E. he played intramural basketball and was league director for two years.
Al, the most voluble of the voluminous civils, was never at a loss for words. His frankness was respected by everyone... Oscar enjoyed sports, participating in all forms of intramural activity. Other than sports, his favorite avocation was reading... Frank, very active in class affairs, was vice-president in our Junior year, and a member of the ASCE and Yacht Club. He had a quip for any circumstance... John had attended N.C.E. long before any of us started. He played in the Fresh-Soph Interclass Football game in 1940. Photography is his hobby... Two years on "Pick's Pike" in Burma started Joe in engineering. He had a scant regard for academic formulas which cannot be applied. Never too busy for a word or a grin.

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Franklin Boulevard
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FRANCIS X. HALL
707 82nd Street
North Bergen, N. J.
Mike's initiative and alertness will make him an asset to any employer. Never at a loss for humor, Mike is pleasant company ... Few people can boast of commuting as great a distance as John. In spite of this handicap he was a member of the ASCE ... Joe, another vice-president of the Hearts Club, played intramural basketball and enjoyed those wonderful evenings at the Dance Club ... Augustus was full of sly humor but never the kind that hurt the other fellow. Besides being a musician he was feature writer for the Technician and the Surveyor ... Bob was known for his interest in sports, which included boxing, sailing, and hunting. Offices he held in school included vice-president of the ASCE and co-editor of the Surveyor.
Bob possessed the agile hand necessary for an artist. He played intramural softball and was a member of the Nucleus Art Staff. He was noted for his meticulousness ... Tony was one of the few people who belong to two fraternities, Delta Sigma Zeta and Alpha Phi Delta. He played intramural softball and enjoyed dancing in his off hours ... John, the astronomer of our class, excelled in telescope construction. He played intramural softball and was a member of the ASCE ... Ken, a former Navy man, claims his wife worked his way through college. He was corresponding secretary of Phi Beta Tau and enjoyed music and flying in his off hours ... Ed was Associate and Fraternity Editor of the Technic; Tau Beta Pi; Editor of the Nucleus; Historian, Pi Delta Epsilon; and First Councilor, Sigma Pi.

KENNETH W. REIMAN
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ANTHONY ALBERT RATTO
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Hoboken, N. J.

JOHN AMBROSE REIF, JR.
246 Van Buren Street
Newark, N. J.
If any man knows how to execute a three-cushion shot in pinball, this engineer does. Bill can talk long and learnedly of music from Bach to Stravinsky . . . John played intramural basketball and was active in class affairs. Chairman of the boatride committee and section representative . . . Lou, a quiet lad and a hard worker, was elected president of Phi Beta Tau in his junior year, an unusual stunt. He was also active in intramural basketball . . . Joe was one of the more active members of our class. He captained the table tennis team and was secretary of the Newman Club . . . Dick, an honors option student, played intramural basketball and was Yacht Club Commodore, Dance Club President, Interclub Council Chairman, and president of ODK.
Ralph knew the answers, the procedure, and why it should be selected. Better than that, if you had asked him to clear up a point he would do it with a smile. Dick was a bridge and crossword puzzle addict. His activities included Photography Editor of the Nucleus and Phi Beta Tau fraternity. Cris came from the northern half of the Jersey City-Iselein axis. (Stigen and Bower) Dedicated, we think, to putting half the world in tailor made cars. We do not mean Volkswagons. Chet came to N.C.E. for an education and was elected into Tau Beta Pi. His main avocation is dancing and he attended Arts High nights studying architecture. Bill does not talk a lot, but when he does, he knows what he is talking about—this opinion shared by his classmates indicates his capabilities.
FRANK W. VITEK
2 Victor Street
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Nobody quite knows how to find the humor in a dry lecture as Frank does. He enjoys sailing and hunting and was very active in the ASCE.

CARL F. WHEELER
36 Ninth Street
North Arlington, N. J.

Carl has always had an active interest in his class and classmates. He was a member of the ASCE and treasurer and historian of Pi Kappa Phi fraternity.

LEONARD B. WILSON, JR.
31 North Twenty-first Street
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Len has been the mainstay of the varsity tennis team for four years. He was active as president of the Dance Club, secretary of the Interclub Council, and a member of Pi Kappa Phi fraternity.

RICHARD DUNN
175 Parker Avenue
Maplewood, N. J.

Dick is known for his smile and high spirits. While attending school at night, he worked in the Engineering Department of Howard, Needles, Tammen, and Bergendorff.
CHRISTOPHER D. GIANAKIS
164 East Sixth Avenue
Roselle, N. J.

Chris earned his degree at night while earning a living during the day in the Engineering Department of the Lock Joint Pipe Co.

WILLIAM JOSEPH ZIKA
582 South Eighteenth Street
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Basketball was Bill's first love, he was manager of the basketball team and also played intramural ball. He was a member of Pi Kappa Phi fraternity.

FREDERICK REIMAN
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Fred completed most of his courses in the Day College but finished in the Evening Division. He worked at Allen N. Spooner and Son, Inc.

VINCENT N. PALMO
368 Watsessing Avenue
Bloomfield, N. J.

Vince's cheer and brightness is known throughout the Civil Department. He has worked at the Bloomfield Tile and Terrazzo Company.

HARRY D. STINCHCOMB, JR.
107 Halsey Street
Newark, N. J.

Harry completed some of his courses in the evening division. However, as a day school student he was sophomore section representative, served on the ring committee, Technician staff, and helped organize the original DANCE CLUB.
Wine, Women,

The Royal Court of the R. O. T. C. Ball.
and Song...

Fiddlin' around at the Dance Club.

Still young and carefree —
THE Freshman Dance.
There was lots of horsing around at this SENIOR DANCE.
Robert E. Anderson, B.S., M.S.
"Gentlemen, let’s have a quickie."

Donald W. Dickey, B.S., M.S.
"The minus is due to the math."

Solomon Fishman, B.S.
"Ah fellows, there again you are missing the point."

William Jordan, III, B.S., M.S.
"Oh now! You’ve had this in your sophomore course."

David Kurland, B.E.E., M.S.
"You can get anything made if you are willing to pay for it."

Robert H. Rose, II, B.S., M.S.
"Your right hand rule is left handed."

Frederick A. Russell, B.S., E.E., M.S.
"This section will have to buckle down."

Paul C. Shedd, B.S., M.S.
"Try another frequency."
"What experiment do we do today?"
"Twenty-three."
"What one is that?"
"Epstein Coreloss Test."
"Oh, no!"
"Anybody read it?"
"I did, but I don’t know what they’re talking about."
"Did you read it?"
"No, why should I have read it?"
"You’re the group leader."
"I am?"
Chorus: "Yes."
"I forgot."
"Well, let’s get hot on it. We have three weeks. If we knock it off today, we’ll have two for write-up and we won’t have to do anything at home."
"Okay, what do we need?"
"Get a bunch of junction boxes and some leads, an ammeter, voltmeter, and—oh—oh—we need the low power factor wattmeter. Hurry and get Davie to sign for it before someone else takes it and leaves us up the creek."
"Hey, who put this hunk of junk over here?"
"I did."
"For what?"
"That’s the Epstein coreless specimen."
"It looks like the one Epstein used."
And so ever forward the students progress. Preparing well in advance, they perform experiments in the fully equipped electrical laboratory, using the latest and most modern instruments. They are guided by a well planned and clearly written set of laboratory notes prepared by the electrical engineering staff. Much of the machinery in the lab was donated by generous alumni. The “Class of ’88” was among the top contributors, closely followed by a fellow named Weston.

All meters, instruments, special leads, adapters, etc., are located in the stockroom which is manned by two affable old gentlemen who stand ready to serve the student at a moment’s notice. No problem is too large or small for them; their knowledge of the equipment they possess is unbelievable. Extra aids available to the student include a large well-equipped, ventilated darkroom and a unique duplicating machine.

How the Electrical Engineering Staff finds time to study, read, and grade each report is beyond conception. It is believed that marks are based on the “Weight-Volume-Size” method and all students vie for the “top of the stairs position,” an N.C.E. colloquialism meaning the highest grade.

A recent addition to the laboratory is a high frequency transmission line for standing wave measurement. This equipment will be integrated in the measurements course as a new experiment. Acquisitions such as this are typical of the progressive, ever-improving Electrical Engineering Department. The students take pride in the department’s motto, “THOUSANDS RUBLES — NEGATA RESULTA,” which loosely translated means, “Thousands of dollars worth of equipment and you can’t get results.”
Dan will be remembered for his choreographic dexterity. His enthusiasm in dancing makes him an enviable partner for any girl... Don was a member of AIEE, vice-president of the sophomore class, basketball manager, and section representative. He both learned to dance and acquired a wife at the DANCE CLUB... Alf goes quietly about his business. His favorite fancy is to bowl, and of school he has only this to say in retrospect: "I'm glad its over."

Leonard, while keeping to his books, found time to enjoy competitive skating. He is envied by all for his ability in the rinks... This, we expect, is not the last publication in which we shall see Mike and hear of him. His varied interest, plus his personal drive, prophesize a successful future.
Milt's degree should be written in neon lights for he earned it at night school. A diligent worker, he should go far with Westinghouse. Joe, as a freshman representative, a member of the IRE and the Visitor's Day Committee, was notably able to cope with members of the E.E. Staff. As a member of the AIEEE and IRE and an active spirit on the Visitor's Day Committee, John will be remembered as the unassuming man who had a ready greeting for his associates. Bernie is a military-minded individual. His "hobby," says he, is ROTC. His interests in sports were varied—at times too varied for the patience of his colleagues. A man with a motto, "To be an engineer and also a human being," Art was a radar technician with the Marine Corps.
Joe, a member of AIEE and Alpha Phi Delta, participated in bowling, basketball, and softball. Bob found N.C.E. to be better suited for engineering studies than Lafayette. His ambitions lie in the field of power transmission. Henry never passed a quiz. However, this should be no handicap, for he is a likeable fellow, and his know-how in "power" will outshine his scholastic records. Activity and Bill are synonymous—despite the rigors of the curriculum. He distributed his energies among the student and class councils, the intramural sports program, Welfare committee, the AIEE and IRE. Bill Fallon's school activities were limited, but his allocation of spare time to his family was understandably liberal.
Frank's unusual ability to absorb technology and its implications is manifested by membership in Tau Beta Pi; other activities include the AIEE and IRE... Fred G., the treasurer of the Arnold Air Society and member of IRE, advocates listening to a swing band in order to soothe the nerves after a hectic day... Fred E., a member of the AIEE and IRE, acquired far more than skill in dancing at the Dance Club... Pete, a bridge player of fair ability, participated in intramural basketball. He is a member of the AIEE, IRE, the Layout Staff of the Nucleus, and the Visitor's Day Committee... Dominic, who is calm and congenial, worked on the Nucleus and Technician editorial staff. He was active in Pi Delta Epsilon, AIEE, SAM, the Dance Club, and the Rifle Club.
FRANK S. GUTLEBER
3 Laauwe Avenue
Preakness, N. J.

GEORGE HAUGK
190 Nelson Avenue
Jersey City, N. J.

THOMAS J. HEALY
674 Jefferson Avenue
Elizabeth, N. J.

ROBERT JACOBS
3020 Edwin Avenue
Fort Lee, N. J.

HERBERT K. JANSSEN
424 Fifteenth Street
Union City, N. J.

Frank is a member of AIEE, IRE, and the Honorary E.E. Society. George, a staid family man, is a member of the Chess Club, Christian Fellowship, AIEE, IRE, and the Et Cetera staff. He also participated in intramural basketball. Tom's ready Irish humor will be as welcome to the communications industry as it was to N.C.E. Popular through his personality and activities, he aspires to the Bell System. Bob transferred to N.C.E. after spending two years at Bradley University. You can find him every noon hour digesting his lunch over a hot bridge game. Herb's alter ego, a newly acquired daughter, manifested herself in the drive displayed by him this year. Though he professes an interest in power engineering, he is president of the IRE.
Lou, the Features Editor of the *Nucleus*, also served in all offices of Tau Delta Phi, as secretary of Tau Beta Pi, and as representative on the IFC and the Student Council. He is a member of Omicron Delta Kappa, and the Dance and Bridge Clubs ... Bernie, a Tau Beta Pi man, was president of the Freshman Class, president and vice-president of the IFC, president and vice-president of Alpha Sigma Phi ... Bob, served as treasurer of IRE and Sigma Pi, and was a member of AIEE and Tau Beta Pi ... Tom, a member of AIEE and Dance Club, competed in intramural basketball and was on the *Nucleus* staff ... "Tippy" Carlos was active in the AIEE, IRE, and Arnold Air Society. He was a section representative for two years.

LOUIS KAMENTSKY
130 Myrtle Avenue
Irvington, N. J.

BERNARD C. KEACH
947 Cross Avenue
Elizabeth, N. J.

ROBERT E. KING
604 Chestnut Street
Kearny, N. J.

LOUIS KAMENTSKY
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ROBERT E. KING
604 Chestnut Street
Kearny, N. J.
JOHN B. MANDLE
330 Deiaarest Avenue
Closter, N. J.

EMIL A. MAZZARELLA
25 Sunset Avenue
Newark, N. J.

This is Joe's first year in daylight; most of his time was served in the evening division, activities, IRE, and intramural bowling. Bob, a member of AIEEE and IRE, uses his spare time to relax with a book or bowl a few games. A likeable fellow, Malcolm is interested in practical electronics. He spent several years in the evening division before the expediency of full-time study became manifest. John, learned and sincere, served as president of Tau Beta Pi, treasurer of Omicron Delta Kappa, and the Student Council and as co-chairman of the Student Service Committee. Mazz has reached a pinnacle via pinochle. How he managed to be an H.O. boy without doing homework is a mystery.
Wolfgang, an amateur radio enthusiast, was president and secretary of the Radio Club, chancellor of Tau Epsilon Phi, and a member of the Student Council. Joe M. lists among his activities the AIEEE, IRE, Dance Club, and the Newman Club, played softball, and bowled with his section team. He served on the Cap and Gown Committee during his Junior year. George is gregarious, with many and varied interests. The apex of his industrial desires is employment in the field of electronic design and development. Joe, a member of AIEEE, is active in the YMCA basketball league at home. His favorite pastime is relaxing. Steve, a member of AIEEE, and IRE, is a bowler who found time to cultivate another hobby (chess) and graduate from N.C.E.
Karl, a member of AIEE and IRE, served on the Cap and Gown Committee in the Junior year. His hobby is stamp collecting... Jack is an ex-sailor, interested in radio and television. He holds membership in Sigma Pi and the Golf Club, and was one of his section's keglers... Leo came to N.C.E. after two years at N.Y.U. He was a member of the AIEE and the bowling league. His intended field of work is electronic control devices... Ettore, who served as historian of Delta Sigma Zeta, is also a member of AIEE and Tau Beta Pi. He participated in intramural softball and bowling... The cosmopolitan atmosphere of the Jersey Shore is reflected exquisitely by Gene. The vigor generated by clean salt air motivated his resurrection of the IRE this year.
Bill is a member of AIEE and IRE, and senior representative to the AIEE. His favorite subject is math... His perseverance and thoroughness will send Bill Rose far up the ladder of success. Corresponding secretary of Tau Beta Pi, he has been active in AIEE, IRE, and the Table Tennis Club... Fred, an electronic technician and ex-sailor, joined the AIEE and IRE to further his education and gain membership in Tau Beta Pi... Dick is a sport enthusiast who found time to acquire a Tau Beta Pi key and indulge in intramural basketball... Bob, a senior section representative, is also a member of AIEE, IRE, the Dance Club, and the Glee Club. He fared well in intramural softball and bowling.

WILLIAM R. REGUEIRO
366 1/2 Seventh Street
Jersey City, N. J.

RICHARD P. SCHAKE
297 South Burnett Street
East Orange, N. J.

WILLIAM A. ROSE
359 Bergen Street
Newark, N. J.

ROBERT J. SCHETELICH
307 Twenty-first Street
Irvington, N. J.

FREDERICK J. SCHAEFER
285 Lincoln Drive
Kenilworth, N. J.
Walt, a very sincere guy, served as treasurer of AIEE and member of the Art Staff of the Nucleus and Tau Beta Pi. He participated in intramural bowling.

Joe, a man of potential presidential timber, served as president of AIEE and Delta Sigma Zeta and was a member of Tau Beta Pi and IFC. He played softball and basketball.

Ed, the Associate and Art Editor of the Nucleus, was a member of Pi Delta Epsilon, IRE and Arnold Air Society, and participated in intramural bowling and softball.

John, a transfer student from Upsala, was active in intramural basketball and softball. A member of Sigma Pi, AIEE and IRE, he was section representative in his Senior year.

Bill will be remembered for his flaming red hair and blazing action in the laboratory.
The bustling man about the campus is Arnold. Section representative, secretary of AIEE, treasurer of Tau Delta Phi, Layout Editor of the *Nucleus*, and a member of IRE, the Bridge Club, and the Dance Club . . . Bob, a member of AIEE, has also been active in scouting. He played basketball and softball in the intramural league . . . Reuben, an avid bridge fan, was active in the Bridge, Dance, and Radio Clubs, Chairman of the membership committee of IRE, he also participated in softball and bowling . . . Henry's lot this year was to be a power man in a communications section. A member of both AIEE and IRE, he is interested in sales engineering . . . Fred was section representative for two years, a member of AIEE, IRE, and the Radio and Golf Clubs. Interests other than his son are electronics and automobiles.

**ARNOLD UNGER**  
334 Schley Street  
Newark, N. J.

**ROBERT DOUGLAS WALKER**  
10 Synott Place  
Newark, N. J.

**HENRY A. WILLIAMS**  
381 Lum Avenue  
Union, N. J.

**FRED C. ZUSI**  
138 Bremond Street  
Belleville, N. J.

**REUBEN WECHSLER**  
612 Sherman Avenue  
Plainfield, N. J.
EDWARD F. BRODERICK
155 Highland Avenue
Jersey City, N. J.

His diligence and thoroughness, coupled with his technical experience, will help Ed become an outstanding engineer. He worked with Byrne Associates while completing his night-school courses.

WILLIAM J. ORMSTON
81 Romaine Avenue
Jersey City, N. J.

Bill, a graduate of the evening division, spent his daylight hours as a designer of electrical testing equipment. When the Giants go bad, he has his two-year-old daughter to console him.

RALPH J. POCARO
117 Hillside Avenue
Newark, N. J.

Ralph's activities outside school have dealt mainly with television. He was his section's representative and is a member of the IRE. His pride and joy is his son Jeffrey.

DAVID E. OSTROM
31 Edison Avenue
Nutley, N. J.

Dave is another one of those men who worked in industry by day and attended school by night. His interests are sports and tinkering with radic and audio equipment.

LAWRENCE R. WASKIEWICZ
289 Glenwood Avenue
East Orange, N. J.

Life at an engineering school has failed to dull Larry's taste for the finer things in art and music. He is a member of the AIEE.
JOHN J. DUDUS
305 Seventh Street
Jersey City, N. J.

John, a member of both the IRE and AIEE, is recognized as a hotshot on the basketball court and the softball diamond. Fame came to him upon the introduction of his micro-cough units.

KENNETH G. HOFFMANN
RFD #2, Box 128
Flemington, N. J.

Although a member of both the AIEE and IRE, Ken's interests lie mainly in electronics. He has worked in the instrument engineering department of Dumont Laboratories.

Professors Jordan and Shedd
examining equipment in the Electrical Engineering Laboratory

ERNEST U. PEIRSON
31 Park Avenue
Bloomfield, N. J.

Ernie's future with the Western Electric Company in Kearny is bright as a 100-watt bulb.

ALLEN D. STORM
246 Slocum Way
Fort Lee, N. J.

Working for the Westinghouse Elevator Division, Allen is responsible for the ups and downs in the life of many a person.
"One point eight three nine four two one six two—or is it three?"

"That last quiz pooped me."

"All I want is change for the coke machine."

"I wish I had an Austin."
"Amazing where those tours will lead you!"

"Aw come on, fellas, don't you want any flyspecks?"

Now He's Up —

Now He's Down!
CHEMISTRY

"Are you sure Newton's second law applies in this co-ordinate system?"

LABS

ELECTRICAL

"Do you smell something burning?"

MECHANICAL

Old Faithful — once every freshman class.

Three Therbligs Per Apple
The Professors, Quote and Unquote

Dr. Wilhelm Ornstein, B.S., M.S., D.Eng.
"Go to ze board and make a problem."

Prof. Robert E. Bannon, B.S., M.S.
"We don't know too much about this but . . ."

Dr. Pericle A. Chieri, M.E. (Naples),
D. Eng. (Genoa), D. Aero Eng. (Rome)
"This is basic."

Mr. Edward Miller, B.S., M.E., M.A.
"Put up the barriers."

Prof. Leroy S. Olsen, B.C.E., M.E., M.S.
"Questions, questions, any questions."

Prof. Jerome L. Polaner, B.S., M.S.
"Have you filed out the form yet?"

Prof. Theodore A. Schneider, B.S., M.S.
"Look in Shoope and Tuve."

Mr. Eugene H. Smithberg, B.S., M.M.E.
"Take a healthy guess and see if you're right."

Mr. James R. Summers, B.S., M.S.
"Are they any questions?"
Our four years held many fond memories for the men of destiny. Freshman Discriptive Geometry introduced us to N.C.E. quizzes. Though the bell might be ringing, we still had "just enough time for a quiz." In our sophomore year during Physics lab we ME's taught the EE's how to set up circuits and showed the CE's how to use a tape measure. Then came the famous "Crystal Ball Course," otherwise known as EE lab. Although we accumulated a host of knowledge, we never did find out how long a short circuit was.

As Juniors we relished our first taste of Mechanical Engineering. In our lab we continually proved that the efficiency of the equipment ranged from 110% to 150%. This was obviously wrong, since any idiot knows it can't be over 105%. This was the year the MEMO's were born. They thought themselves "captains of industry," envied by every other student. The regular ME's frowned upon Memo's and Aero's; they thought the former were social climbers and slave drivers (time study), and that the latter had their heads in the clouds.

Senior year marked the adoption of a new battle cry: "Back to the Endless Belt."

Seeing how Newton's famous equation

\[ F = MA \]

has harried the poor student engineer, our greatest fear is that Einstein's unified field equation will make life unbearable.
Frank, a camera bug, did photo work for the Technician, Fraternities, and class demonstrations. He participated in Visitor Day programs and held membership in the ASME. No need of flowery words to show Jack's interest in N.C.E., for his activities speak eloquently. "Smiling Jack" was one of the most popular members of our class. Bill's ability to weave an interesting and humorous story will cast him as an "ice breaker" in his future contacts. He is a photography fiend on the side. An industrious scholar, Stan has an inquisitive and sharp mind. Sticktuitiveness is his forte. Bill's tall stature, wide grin, and friendly manner made him an outstanding and well-liked person. He studied a glorified business course (MEMO) while at N.C.E.
Dick enjoyed the relaxing sport of fishing and would spend hours working in his wood shop. He was a member of the ASME ... John B—without a care or worry—always happy and full of fun—was a member of ASME, Glee Club, and Dance Club ... Active participation in the Boy Scouts, ASME, and intramural sports has made Joe a valuable member of our class. His smile and friendly manner have made him many friends ... Dividing the hours between the Warren Club and school left little time for Bob's other activities except the Nucleus Staff, ASME, and the Yacht Club. Rocket Engineering is his intended field ... John C. was a great sports enthusiast. He enjoys hunting and fishing and was a member of the ASME.
Manlio participated in intramural sports, and the student services. He continued his study of fluid dynamics and curvatures at the Leonardo Field Club every Saturday night . . . Bob, a quiet likeable guy who finally was elected to the non-bachelor club of the "Memo's," was one of the best-dressed men in the school . . . The trust that Delta Sigma Zeta had in Hugo by making him Treasurer reflects his reliability. He was Literary Editor of the Nucleus, member of ASME and Alpha Phi Delta . . . The personality half of the "Tony Twins," Tony is noted for his curiosity, extreme neatness, and ability to always get the front seat . . . Dave, the boy with an arm for fencing, was treasurer of ASME. His hobby was automobiles built a decade or so back.
John was unique in his ability to maintain a full sports program while attending N.C.E. He played varsity tennis and various intramural sports . . . Steve was active in sports and social activities. He was president of Epsilon Phi Sigma, an intercollegiate fraternity. He made a favorable impression upon any acquaintance . . . Bill D. a Memo, possesses a lively sense of humor. Besides serving on various committees, he is a member of Pi Tau Sigma . . “Red,” Senior Class Treasurer, and Sports Editor of the Nucleus, was active in intramural sports. He is another of the Hudson County commuting engineers . . Ken was one of the more active members of the class. He was member of Phi Beta Tau and ASME and spent his spare time building models.
Willy was recognized as one of the foremost authorities in the class on foreign cars. He supplemented this interest with participation in the ASME and various intramural sports. Ed was famous for good grades and an unorthodox method of analyzing problems. Above all of these qualities, however, are his frankness and ability to support his beliefs. Tony was one of the “Dads” of the Memo Section. Soft spoken, with a ready smile, he held his own from bowling to pinochle. For four years everyone had felt the warmth of Herb’s personality. Herb was an excellent example of friendship and education combined. “Personality-plus”—that’s Charlie, an avid sportsman both in and out of school. His big smile, friendly manner, and cheerful disposition made him very popular.
Frank was one of those gay blades whose edges had been only slightly dulled by N.C.E. life. He was recording secretary of ASME and sergeant-at-arms of Delta Sigma Zeta... Recalling Ed to mind will never be difficult. Subtle humor and an energetic nature had gained him respect and admiration... No class would be complete without a pleasing personality like Chuck. He was an easy-going fellow with plenty on the ball... Doug was a quiet, yet effective fellow who made his presence felt wherever he was. His good humor plus his knowledge of automobiles made him very popular... Jack, noted for his non-engineering ties, worked on the membership committee of the ASME, circulation committee of the Nucleus, was also an officer in Alpha Sigma Phi.

FRANK MARK FORTE
41 King Street
Belleville 9, N. J.

DOUGLAS W. GABRIELSEN
29 Woodside Terrace
West Orange, N. J.

EDWIN RANDALL FRANSSEN
508 West Third Avenue
Roselle, N. J.

JOHN H. GAUCH
32 Greenwood Drive
Millburn, N. J.

CHARLES FRENDOCK
114 Norwood Street
Newark 6, N. J.
Rog an honest and conscientious worker, though he wouldn’t admit it, was a creditable part of the original Memo section . . . Phil, between Yacht Club outings, found time to attain the positions of Section Representative and Corresponding Secretary of ASME . . . The dance club wouldn’t be the same without Rich. His spare time was divided between the Log Cabin Inn and his car. N.C.E. will be proud of his future work . . . Fred, with his quiet manner and pleasing smile is destined to be a success in his chosen career. He was reliable, conscientious, and well-liked by all his associates . . . Gary came to N.C.E. as a sophomore from Syracuse University. At N.C.E., he had participated actively in the tennis team and ASME activities as well as intramural bowling and basketball.
“Big Bob,” when not editing the Technician, was found with the secretaries. Famous saying: “Homework, who does that?” — and yet he was one of the top men on that curve . . . John, famous exponent of Professor Estrin’s propaganda, was active in many societies, clubs, sports and almost anything that went on in school. He was one of the big three . . . Bob Heffner was active in the Arnold Air Society, ASME, SAM, and the class. He has been right at home since his transfer here as a sophomore . . . Glenn, who attended Newark Academy was active in the ASME . . . Vice-president of Tau Delta Phi, playing manager of the Soccer team, President of Chess Club, Fraternity Editor of Nucleus, are just a few of the activities Max had helped make successful.

GLENN R. HERSHEY
837 DeGraw Avenue
Newark 4, N. J.

MAX P. HITSCHMANN
846 South 13th Street
Newark 8, N. J.

ROBERT C. HARDING
801 Park Avenue
Fair Lawn, N. J.

JOHN HAYDUK
42 Jeanette Street
Carteret, N. J.

ROBERT E. HEFFNER
43 Homested Road
Metuchen Post Office, RFD, N. J.
John, the distinguished military student, was a demon on theory and exhibited qualities of a profound thinker... Making model airplanes and playing ping-pong took up all of Joe's spare time. Why he wasn't an aeronautical we'll never know. "Let's go flying" was his usual greeting... Joe K.'s ability on the varsity basketball team and on the pinball machine has made him known to many and liked by all. He was active in ASME and the Fishing Club... Ray, always ready with a joke before a test, was Secretary of Alpha Sigma Phi, a member of ASME and vainly fought the pinball machine... Lothar (Bob) majored in lunch and bridge. He was business manager of the Nucleus, a member of Alpha Sigma Phi and of ASME.
Bill, a solid citizen of Rutherford and N.C.E., has a capacity for hard work which should help him immeasurably in his chosen field . . . John, one of our veterans, has been a member of the Bowling Club and of ASME. His hobbies include automobiles, art metal working and wood working . . . Rod, the boy who is always busy tinkering with a gadget of some kind, was also Treasurer of the Dance Club and a member of A.S.M.E. and of S.A.E. . . . Although a large amount of Tom’s time was spent with outside activities, he is well known for his interest in sports and his sincerity. He is a member of A.S.M.E. . . . Ability and desire to learn coupled with high integrity and sound judgment have helped make George President of Sigma Pi.
KENNETH GEORGE MICHEL  
144 Oakwood Drive  
Packanack Lake, N. J.

FRANK T. OAKLEY  
1039 West Fourth Street  
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Plainfield, N. J.

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Clem, the boy from Massachusetts, exhibited a great deal of interest in outside activities as well as in the Photography and Bridge Clubs . . . Otto tried to keep a perfect record of inactivity, but lost. Under his leadership, the A.S.M.E. prospered. He was one-third of the big three . . . Richie's intelligence will always be admired by those who knew him, with proficiency he became a member of Tau Beta Pi. His graduation leaves the basketball team with a hard man to replace . . . Ray likes to get things done and have a good time doing them. He has an intense desire for the better things in life and an ability to organize his work . . . Ray Rampi enjoys himself by relaxing and being with his wife, Lucille, and his daughter, Irene. He was President of Pi Tau Sigma and a member of Tau Beta Pi and the Nucleus Art Staff.
Al was one of the most active men in the class with his overwhelming enthusiasm, winning smile, and rapid-fire quips. A real salesman, his favorite title was “Dean of Women” . . . It can be said that Cass stood out in our class. All 6'6" of him. His amiable ways and his infectious, wonderful laugh will be remembered by all . . . Hank is really king-sized. A typical businessman, dependable, blue eyes, curly hair and boyish grin. He knows how to talk well and when to listen . . . A sense of timing was evident in the thoughtful remarks Ehrhard made and in the way he could always beat the pinball machines. In strength of materials, he rivaled Timoshenko . . . Vito’s outside activities and labor and political organizations prevented his active participation in campus life, but he’ll always be remembered by his classmates for his determined stand in favor of Unionism.
Mild mannered, good natured and a congenial co-worker, Bob is respected by all who became acquainted with him. His interests are the A.S.M.E. and photography . . . Dynamically possessed of a radiant personality, our philosopher has helped ease the strains of straight engineering studies with his explorations into the world of satisfaction from within—that's Dan . . . Manese has lent a cosmopolitan air to N.C.E. His experiences in Europe have made our classes far from provincial . . . After transferring from Rutgers in his sophomore year, Larry became well known for his wholehearted participation in sports and his willingness to help others in their scholastic work . . . Marty is famous for his witty remarks and sense of humor. He loves hunting and fishing and is also active in A.S.M.E. and other school clubs.

MANESE M. SEGAL
45 Wainwright Street
Newark, N. J.

ROBERT DEAN RYERSON
514 Richmond Avenue
Maplewood, N. J.

DANIEL F. SALVINO
239 Jackson Avenue
Jersey City, N. J.

MARTIN IrvING SHEPS
16 Beverly Street
Newark, N. J.

LAURENCE J. SCHAEFER
Lincoln Street and Pine Avenue
South Amboy, N. J.
Big Jim, with his cooperative nature and professional attitude, will always be remembered for intellectual curiosity and his unflinching smile for everyone . . . Art, whose likeable nature makes his company welcome in any crowd, has been active in the Camera Club, A.S.M.E., and on the Tennis Team . . . As head of Tau Beta Pi’s tutoring committee, Bob has helped many students. He is well liked and sure to succeed. His other activities include A.S.M.E., the Nucleus Staff, and the Visitors’ Day Committee . . . Ned, a distinguished military student, is a conscientious fellow, well liked by everyone. He has attained a good scholastic record, as proved by his membership in Pi Tau Sigma . . . Stan’s motto, “Never worry,” fits him well. Endowed with a flexible elbow, a subtle sense of humor, and an infectious smile, he is a member of S.A.M. and A.S.M.E.
If you are ever looking for angles, just ask Al; he’s sure to know. Among his hobbies, he includes sports, girls, and radio... Nick is well-liked for his words of good cheer and sincerity. Such a combination of personality and knowledge will be appreciated in industry. He was a member of Delta Sigma Zeta, A.S.M.E., and Alpha Phi Delta... Bob, half of the "Taetzsch Squared," was always interested in the other side of the question. He was quick to speak and very often proved his point. His greatest achievement was being Co-Captain of the Fencing Team... Remember Bill as one of the top men on the curve? His ability was proved on the fencing strip, achieving the position of Captain... Jay, a man of many abilities, was active in A.S.M.E. and showed great interest in all intramural sports.
WALTER ALAN VEIT
8 Dartmouth Road
West Orange, N. J.

Friendly, amusing, and competent, Walt is an all-around good fellow. In school he has been in the ASME and the Ski Club; outside he has been interested in private flying.

JOHN P. WIEGAND
71 Maple Street
Paterson, N. J.

Jack actively participated in the Visitors' Day programs and the Nucleus art staff, and ushered for the 1951 Graduating Class. He derives considerable pleasure grooming and sailing his sleek windjammer.

WILLIAM CHESTER WALTER
370 Central Avenue, Apt. T-6
Orange, N. J.

Bill, demonstrating perfection in all he does, is a distinguished military student. Besides being active in the ASME, Arnold Air Society, and Beta Theta Pi, he is interested in flying, golf, tennis and writing.

HAROLD VINCENT WOLF
468 Chancellor Avenue
Irvington, N. J.

Hal, the class Vice-President, will be remembered for his ever-present smile and good nature. An eager worker in many extra curricula activities, he has acquired a reputation as a top-notch varsity bowler.
MARIAN WOLUJIZYK
32 W. Kinney Street
Newark, N. J.

Marian, the walking library, is a recent arrival from Poland. If you ever tried to get a reference book and found it was out of the library, it’s a sure bet Marian had it.

JOSEPH A. ZARRA
258 North Tenth Street
Newark N. J.

Joe was one of the more reserved members of the class, but his inquisitive attitude and quick wit are continually making friends for him. His determination and initiative will help him to reach his goal.

HAMILTON DAVID WOODLAND
292 Greenbrook Road
North Plainfield, N. J.

Besides attending classes, doing homework, holding down an outside job, and being active in ASME, Boy Scouts, and P.T.A., Dave has acquired many friend at N.C.E.

ATTILIO A. BARBIERI
743 Boulevard
Bayonne, N. J.

Harry enjoys New York night life. He seems to like the Newark night life, too, for he earned his degree in the evening division.

C. HENRY CLASH
336 Harrison Avenue
Roselle, N. J.

Henry’s Pi Tau Sigma key attests to his quickness of thought and deed. While studying for his degree at night, he has been employed as a senior cost estimator for a Precision-Instrument Manufacturing Company.
THORALF LOUIS EGELSEN  
25 Oak Street  
Belleville, N. J.  
Thoralf, a graduate tool and diemaker, has spent many years in industry designing and detailing tools, machines, and test equipment. This year he achieves his degree in mechanical engineering. His off-the-job hours are spent with his hobby, photography.

WESLEY A. KAPEC  
36 East 49th Street  
Bayonne, N. J.  
Wes is torn between work and the evening division on one side, and his daughter and outdoor sports on the other. The solution? Lots of golf in his spare time, and a good job on everything!

HAROLD C. LEHMANN  
113 Gales Drive  
New Providence, N. J.  
Harold, a man of resource and tireless endeavor, is building his own home at the seaside to facilitate indulgence in his favorite pastime, swimming. His professional experience lies in the field of electronic equipment.

FREDERICK W. PFLEGER  
36 Randolph Place  
West Orange, N. J.  
Fred, a member of Pi Tau Sigma, has aspirations in the legal aspects of engineering. He is now studying to become a registered U. S. Patent Agent. He has done some design work on automatic calculators.

LEE V. PHILLIPS  
215 Prospect Avenue  
North Arlington, N. J.  
Swimming, hunting, and fishing in good weather and stamp collecting in poor, coupled with work, a family, and night school, keep Lee constantly active. His work deals with designing and drafting.

GEORGE A. SHARP  
14 West 38th Street  
Bayonne, N. J.  
A bright smile and cheery greeting will be his classmates' recollection of George. While attending the evening division, he joined the A.S.M.E.

THADDEUS J. WOJIAK  
833 Pennington Street  
Elizabeth, N. J.  
Tad, a member of the A.S.M.E. and Pi Tau Sigma, has worked as a development draftsman while studying here. During the war, he held a commission as Captain in the Medical Service Corps Reserves.

JOHN W. ZALEWSKI  
John's drive and his interest in his class have been shown by his assumption of the duties of representative to the A.S.M.E. and the Nucleus and have resulted in his membership in Pi Tau Sigma. His interests lie in the power field.
DEPARTMENT OF ENGINEERING DRAWING

Francis J. Burns, B.S.
Robert G. Salamon, B.S., M.S.
Robert Widdop, B.S.

Prof. David E. Davis, B.S., M.S.
Chairman

Left to right—R. Salamon, D. Davis, R. Widdop, F. Burns.
Frank F. Tenny, Jr., Major, U.S.A.F.
Abraham R. Baum, Capt., U.S.A.F.
Louis J. Minella, Capt., U.S.A.F.
Frank O. Rindom, Jr., Capt., U.S.A.F.
Joseph P. Bitz, M/Sgt., U.S.A.F.
William J. Lynch, M/Sgt., U.S.A.F.
Lester J. Rose, M/Sgt., U.S.A.F.
Joseph W. Schubert, M/Sgt., U.S.A.F.
George F. Miller, T/Sgt., U.S.A.F.

DEPARTMENT
OF ENGLISH

Warren H. Crater, B.A., M.A.
Frank M. Durkee, A.B., M.A., Ed.D.
Herman A. Estrin, A.B., M.A.
Frederick P. Fernsler, Ph.B., M.A.
Edward F. Johnson, B.A., M.A.
Nelson C. Keables, A.B., M.A.
John T. Shawcross, B.A.

Dr. James H. Pitman, B.A., Ph.D.
Chairman
DEPARTMENT
OF MATHEMATICS

Herbert Barkan, B.A., M.A.
James H. Fithian, A.B., M.A.
Robert K. Haubner, B.A., M.A.
Carl Konove, B.S., M.A.
Pompey Mainardi, B.S., M.A.
Edward C. Molina, Life Fellow
Edgar P. Virene, A.B., M.S., Ph.D.
Harold P. Wasson, B.EE., M.A.


Dr. George C. Vedova, B.A., M.A., Ph.D.
Chairman
Carl V. Bertsch, B.S., M.S., Ph.D.
Thomas J. Blisard, Sc.B., M.S., Ed.D.
Daniel C. Buck, A.B.
Achille Capecelatro, E.E., M.S., Ph.D.
Charles H. Duursema, B.S., M.A.
Sherman L. Gerhard, B.S., M.S., Ph.D.
Bernard A. Greenbaum, B.S., M.S.
Bedross Koshkarian, A.B., A.M.
Marcus N. Mainardi, B.S., M.A.
Paul E. Nielsen, B.S., M.S.
Irving P. Orens, B.S., M.A., Ph.D.
Eivind G. F. Ramberg, B.C.E., M.C.E.
Monroe R. Weller, A.B., M.A.
DEPARTMENT OF CHEMISTRY

Frederick W. Bauder, B.S., M.S.
John A. Bishop, B.S., M.S.
Joseph M. Fitzgerald, B.S.
Paul Miller Giesy, B.A., M.A., B.S., Ph.D.
Robert G. Poetz, A.B., M.S.
Thomas J. Tully, B.S.

Dr. M. Lelyn Brannin, B.S., A.M., Ph.D.
Chairman

DEPARTMENT OF MANAGEMENT and PERSONNEL

Paul L. Cambreleng, A.B., M.A.
Howard L. Davis, Ph.B.
Galen T. Goewey, A.B., M.B.A.
Irving R. Goldstein, B.S., M.S.
James W. Hicks, L.L.B.
Helen E. Hildebrant, B.S., M.A.
Gorden G. Holbrook, B.S.
William J. Iaffle, B.S., M.A., M.S.
Robert E. Kiehl, B.A., M.A.
Leonard Noyes, M.E.
Joseph A. Rich, B.S., M.S.
Oliver J. Sizelove, B.S., M.Ad.Eng.
Clarence H. Stephans, B.S.
D. Arthur Straight, A.B., M.S.
Henry W. Strong, B.S.

Chairman

Those well-dressed, professionally appearing students that were seen about the campus in September were soon recognized as members of the class of '53 who were living up to their titles of "Associate Engineer."

This austerity was thrown aside in November when a bang-up smoker, which topped the previous year's great event, was presented. The social whirl continued, with a Square Dance and Spring Hop serving as warm-ups to the peak of the social season—the Junior Prom.

After the fragrance of the countless prom corsages was gone, the Juniors interrupted their studies once more to present something unusual at N.C.E. This novelty was a variety show that gave the general public a chance to observe the Juniors' great wealth of talent. The social year was brought to a close by the annual class picnic climaxed by a wonderful moonlight cruise up the Hudson.

Next year N.C.E. will have a great senior class.
From its beginning in September, 1950, the Class of '54 has demonstrated by its spirit in all activities as well as by its high scholastic standing that it is truly one of the most outstanding classes in the history of the college. Organizing early in the first semester, its members elected the following officers: President, Joseph Greuter; Vice-President, Robert Learsch; Secretary, John Anderson; and Treasurer, Al Pass. Under their administration many social events took place, the most memorable being the Square Dance, the trip to New York, the smoker, the dance at the Douglas Hotel, and the picnic.

For the sophomore year the class elected Raymond Lloyd, President; Herman Brooks, Vice-President; John Anderson, Secretary; and Chester Stefanelli, Treasurer. Once more the social program outlined by these officers met with enthusiastic response and such affairs as a smoker, a square dance and a picnic were firmly supported and enjoyed by all who attended.

If the past is any measure of the future, the class of 1954 should certainly meet with notable success.
The Class of 1955 was organized early in October, 1951, a few weeks after school opened, under the able guidance and assistance of Professor Herman A. Estrin. Representatives were elected from each of the freshman sections to form a class council. An election committee was set up, the first officers of the class were chosen, and a formal constitution was drafted and accepted. Under it, committees were formed to complete the planning and organization of class social events. The well co-ordinated smoker, informal dance, New York trip, and picnic were successful in getting the members of the club acquainted with one another. They will enter the sophomore year with fine esprit de corps.
ON AND CAM
Conferring a well-earned Ph. T.
(Pushed Him Through)
Fraternities
and Professional Societies
The Tau Beta Pi Association, national engineering honor society, was founded at Lehigh University in 1885 to confer recognition upon those who have distinguished themselves in scholarship, character, integrity, breadth of interest, adaptability, and unselfish activity.

The Newark College of Engineering chapter, New Jersey Gamma, has become one of the more active service organizations in the college. It has made great strides in the strengthening of student-faculty relationships. This coordination is accomplished through a faculty-rating system and the Tau Beta Pi Smoker. The former provides the students with a chance to suggest changes in teaching methods and the faculty with the opportunity to learn the places where the course failed from the students' point of view. The smoker brings the faculty and students together in a friendly social atmosphere.

As a scholastic society, Tau Bate offers a free tutoring service to which the member donate their time to help underclassmen over the rough spots in their college courses. An annual award is presented to the freshman attaining the highest scholastic average.

New Jersey Gamma marked this, its tenth year, by completing the decoration of the Honors Room of Eberhardt Hall, now its official meeting place. The room was also made available to any of the other college organizations to hold their meetings.
The Newark Circle of the Omicron Delta Kappa Society provides recognition for those students who show outstanding scholarship and leadership in extracurricular activities. The secondary function of ODK is to act as a link between the student body and the faculty to aid in understanding and solving mutual problems.

The first project undertaken by the Society in the 1951-52 year was an extensive freshmen orientation program. By cooperation with the administration and other organizations a program was provided which helped prepare the Frosh for their life at N.C.E. A feature of the program was a question-and-answer period during which the newcomers were given the inside story of engineering education by ODK members.

Through orientation and other programs, ODK is constantly striving to provide for engineering students a better understanding of the real purposes of a college education, with emphasis not only on the development of technically trained but also well-rounded personalities.
For several years prior to the installation of a chapter of Pi Tau Sigma at the Newark College of Engineering, the faculty had recognized the need for an honorary society devoted to the development of high ideals in engineering and to the recognition of distinctive technical ability and leadership in Mechanical Engineering students. The Department also felt strongly that the initiation of such a project should stem from the student body.

Student enthusiasm was not long in developing, and by late fall, 1950, sufficient interest existed to warrant petitioning Pi Tau Sigma. Requirements for the establishment of a chapter were quickly met, and on May 25, 1951, the Newark Tau Theta Chapter was formally installed. Installation ceremonies were performed by Professor Frank L. Schwartz, National President, assisted by Professor George B. Thom, Chairman of the Mechanical Engineering Department and a charter member of Lehigh Theta.

Following the installation of the thirty-eight charter members and two honorary members, the newly installed officers in turn performed the initiation ceremony for eleven active juniors and seniors.

Although Newark Tau Theta Chapter of Pi Tau Sigma is young, student interest is high and the fraternity promises to become a campus organization devoted to worthwhile service as well as to the recognition of past achievement.
Pi Delta Epsilon is the collegiate honorary journalistic society, which calls upon its members to cultivate astute judgment in journalism and requires that the student journalist make use of information coming to his notice with vigor, enterprise, and intelligence.

Members are urged to keep a close watch upon their intellectual honesty and to practice freedom of thought, but to allow nothing to appear in print under their jurisdiction which they would not subscribe personally. They are further urged to endeavor to build up responsibility in the personnel of all college publications. The members of Pi Delta Epsilon subscribe to ideals of good taste and dignity in student publications and are expected to foster these ideals.

Pi Delta Epsilon offers a meeting place for the publications of the college—one where difference of opinion and interpublication difficulties can most advantageously be adjusted. The Fraternity stands ready to give advice to any student publication and to help all of them with their literary or publication problems.

To be eligible for membership in Pi Delta Epsilon, a student must have served at least one year on a student publication or have distinguished himself by exceptional service in an executive capacity on publication.
Founded at Yale University on December 6, 1845, Alpha Sigma Phi has grown to become a prominent member of the National Interfraternity Conference. The chapter here at N.C.E. was originally Alpha of Alpha Kappa Pi, founded on our campus in 1921. In 1946, Alpha Kappa Pi merged with Alpha Sigma Phi nationally, and all individual chapters of both fraternities were united. Alpha Rho chapter has weathered the usual trials and tribulations of commuter college fraternities. Active members here at N.C.E. have accepted these challenges and met them by providing each other with good fellowship and pleasant social events. Members of Alpha Rho have shown keen interest in student activities and many have held responsible offices outside of their fraternal group.
An increased membership in Delta Sigma Zeta fraternity made possible a greater participation in campus activities and interfraternity athletics. Prominent since its establishment in 1930, "Delta Sig" is about to become the Beta Xi chapter of Alpha Phi Delta, a national fraternity. Delta Sigma Zeta has always been guided by its ultimate aims: to promote the technical knowledge of its members, to provide social entertainment, and to develop individual friendships.

Lectures on various technical subjects help keep the members of Delta Sigma Zeta abreast of their field. The fraternity's social activities were highlighted by its 21st Annual Dinner Dance held at the Meadowbrook and its Alumni Banquet.
N.C.E.'s youngest fraternity, Phi Beta Tau, has gained recognition through both its enthusiastic support of college activities and the scholastic accomplishments of its members. Aided by a conscientious alumni association, the fraternity has flourished and expanded its ranks almost threefold during the past three years. This year has seen the institution of an annual dance, the entrance of a bowling team into the intramural league, the acquisition of a piano, and the beginning of a phonograph record collection. Through its many activities new and old and the tradition it is still building, Phi Beta Tau aims to instill in its members an appreciation of college life and enjoyment of the years spent together.
Being constantly aware of the importance of extracurricular activities, the brothers of Pi Kappa Phi have been active in class, college, and club affairs, as well as interfraternity sports. The N.C.E. chapter has twice been the undefeated basketball champion and last year was runner-up.

Last year Beta Alpha chapter was second on the scholastic list, missing first place by only a fraction of a percentage point. In this year’s race, Pi Kappa Phi is once more fighting for the top rung of the ladder.

Pi Kappa Phi ranks twentieth in size among the fifty-nine fraternities in the National Interfraternity Conference. With forty-six chapters and thirty-three Alumni Chapters, Pi Kappa Phi has a total membership of over two thousand.
Looking back on the past year, a brother of Sigma Pi may well feel proud to have been a part of his fraternal organization. The Underprivileged Children’s Party was a complete success, and as a consequence twenty children experienced a bit of Christmas that they might otherwise not have enjoyed.

Scholastically Sigma Pi’s all-man average was far above the all-man average of the college and the highest among the other fraternities on campus.

Recently four brothers were initiated into the honor societies on the campus: George Matthews into Pi Tau Sigma, Bob Hattersly into Omicron Delta Kappa and Tau Beta Pi, Ed Rogers and Bob King into Tau Beta Pi. The sincere hopes of the brothers for a successful future are extended to them and to the graduating class.
The fifth year of Tau Delta Phi's history on this campus was an eventful as well as a prosperous one. A new house was acquired and the Tau Delts set to work decorating it in a manner to make all proud of their accomplishments. The decorating concluded, a gala housewarming party was held. The big event of the year was the welcoming of the newest Tau Delta chapter at Rutgers Newark. No one believed forty people could fit into the chapter house until then. Much time was devoted this year to the first chapter publication, the Yo-Yo. Soon an alumni housing fund will be tapped to redecorate the house with tile and wallpaper so as to make it comparable to any in the country.
Tau Psi chapter of Tau Epsilon Phi fraternity had its start back in 1929 as Phi Delta Mu fraternity. It turned national in 1947, when the last active chapter of Phi Delta Mu shifted its affiliation to Tau Epsilon Phi fraternity.

There are more than forty chapters throughout the United States and Canada from Halifax, Nova Scotia, to Los Angeles, California. The ideals of the members are their creed: chivalry, service, and friendship.

Conventions are held regularly in different geographical areas, at which time all chapters are represented and enact all national fraternity legislation.

Local activities include social functions such as beach parties, sports, and the annual dinner-dance. Aid for higher scholastic achievement is available.
Professional Societies Council

The Professional Societies Council, composed of the presidents of each of the seven professional societies, serves to coordinate the activities of the member societies. At the council meetings each society benefits by the discussion of the field trips, membership drives, scheduled movies, and various activities of the participating societies. An attempt is made to avoid an overlapping of field trips and movies which are offered to all students regardless of society affiliation. Through the auspices of this council, the professional societies are represented on the Student Council, have reserved a room each week for meetings, movies, or speakers, and have planned a sports competition. The Professional Societies Council stands ready at all times to assist any society or any individual member in the solution of problems pertaining to professional activities.

Interfraternity Council

The Interfraternity Council is the coordinating organization of its seven member fraternities on the campus. Problems of mutual interest are discussed at council meetings and solutions proposed and acted upon. The Frosh Blowout sponsored by the IFC in order to acquaint the freshmen with one another and establish an esprit de corps proved to be a great success. The IFC, on behalf of its members, would like to take this opportunity of wishing the entire graduating class the best of luck.
The American Chemical Society offers to students of the chemical profession the opportunity of broadening their knowledge of the field. Student affiliates have the privilege of attending national, regional, divisional, and sectional meetings on the same basis as a member of the society. Here they gain the benefits of excellent discussions, as well as extending the range of their acquaintances with men in the profession. Through plant trips, films and the professional publications that are made available, an insight of the conditions under which the chemical industry operates is gained for future application.

At the college, activities include meetings, guest speakers, and an annual convention of the student affiliate chapters in the North Jersey Section, representing seven colleges in the area. These events provide an atmosphere of fellowship among members and promote interest beyond academic subjects.
Since the renewal of its charter in 1950, the student chapter of the American Institute of Chemical Engineering at N.C.E. has made considerable progress. At the present time the student membership includes most of the senior chemical engineering class plus an appreciable number of underclassmen.

The object of this organization is to further the Chemical Engineering curriculum through chapter meetings and trips to industrial areas and plants. Once each year the chapter sponsors a three-day plant trip to give the students a wider picture of industry. Meetings are held once monthly at which time speakers from industry discuss various professional topics and the chapter conducts its regular business meetings.
The American Society of Mechanical Engineers and its student membership is an organization whose main purpose is the promotion of mechanical engineering and its allied arts and sciences. By encouraging original research work on engineering problems and through the advancement of engineering education it broadens the usefulness of the engineering profession.

The student branch of ASME at N.C.E. is one of the largest in all the engineering colleges in the country, also one of the most active. Field trips, discussions and movies on engineering subjects are the main constituents of the meetings.
Our most memorable field trips were to the Ford Plant, Westinghouse, and aboard the luxury liner "S.S. Constitution."

One of the highlights of the year's activity is the annual national convention of ASME, which is attended by the student members whenever possible. Student members of ASME also have the privilege of competing for many cash awards and prizes. The annual Charles T. Main Award of $150 is the one most sought after by students. Several awards, including the Lincoln Arc Welding Foundation Award have been won in the past by N.C.E. men. Student members have the privilege of using the ASME'S library, one of the best engineering libraries in the country.
The Newark College of Engineering Chapter of the Institute of Radio Engineers was formed in the spring of 1948 and, with a membership exceeding 120, has grown to be the largest professional society on the campus in four short years.

The purpose of the I.R.E. is to disseminate knowledge of the theory and practice of electronics, communications, and related fields of engineering and science, and to further the professional development of its members.

The activities of the past year were highlighted by the society's trip to the United States Signal Corps' Research and Development Laboratories, and a lecture presented by Doctor Ragazzini on analog computers.
American Institute of Electrical Engineers

The main activities of the N.C.E. Branch of the American Institute of Electrical Engineers are the monthly meetings and the field trips to leading industrial plants. An effort is made to have an outstanding guest speaker at each meeting to lecture on electrical engineering topics. These meetings, along with providing something of a contact with problems outside the classroom serve to instill a fraternal spirit within the members of the profession.

The outing field trip the AIEE took this year were to the Public Service Sewaren Generating Plant and the Westinghouse Meter Division. These trips provide an enjoyable break in the school routine and enable the members to appreciate more fully the significance of some classroom problems.
The student chapter of the American Society of Civil Engineers holds one meeting a month at which guest speakers—leaders in their field—are invited to present interesting and informative talks. This and several field trips each year serve to broaden the student's interest in his profession. On the social side the chapter holds an annual picnic which features a softball game between the Juniors and Seniors and a fall dance.

To further the interest in the parent society, chapter members attend the Annual Meeting of the ASCE, which is held at the Hotel Statler in New York City. This year's meeting included a boat tour around Manhattan Island and a visit to the New Jersey Turnpike beside the usual lectures and report presentations.
Relatively new to the scene of national honorary groups, the Arnold Air Society of the AFROTC cadets has in three short years formed squadrons in over 160 colleges in the United States. The society, named after the late General "Hap" Arnold, has adopted for its motto: "The warrior who cultivates his mind polishes his arms."

The society was formed to further the cadets' studies and training in leadership. It hopes to achieve this goal by fostering new Air Scout Squadrons, showing Air Force films at the college, and helping cadets who are in need of additional training.

The highlights of this year's activities for N.C.E.'s Highlander Squadron were the trip to Miami Beach for the Third National Conclave and the formal pledging ceremony at the Armory.
The Society for the Advancement of Management offers N.C.E. students pertinent information on the general topics of industrial engineering and management and opportunities to become acquainted with this field. Plant visits are arranged by the student chapter and interesting films are made available for meetings.

Students are welcome to participate in the activities of the parent organization, the North Jersey Chapter of the S.A.M. which is the recognized professional society for industrial engineers and managers.

The chapter has been growing rapidly since 1947 when it renewed its charter. This growth has been due in part to a growing realization among the students that membership in S.A.M. is open to a man in any professional department.
Activities
A spirited campaign marked the election of an "all fraternity" body of officers to the 1951-52 Student Council. This group proved its interest in college activities and served in a commendable manner.

This year saw the completion of a new meeting room on the third floor of Eberhardt Hall. Dubbed the Honors Room, it will house all Student Council meetings as well as those of the honor societies. A permanent record system for Student Council card holders was established to help in the awarding of Student Council Activity Keys, presented annually to the most active students at the college. Convocations for the benefit of the students were held at which outstanding citizens of the metropolitan area were presented as speakers. The Freshmen Orientation, presided over by Council President Jack Albright, set a precedent in the excellent manner in which it introduced the new freshmen to the College.

The Council brought about a new event introduced as "A Night On the Student Council." Two Student Council card holders with their dates were treated to a dinner and a Broadway show. The idea was conceived by the Class of 1954, Ray Lloyd, and Secretary Dolph Rotfield to give the students some extra benefits for their purchase of Student Council cards. A more collegiate atmosphere was fostered as decorated beer mugs were sold through the bookstore.
Providing a varied program of athletics for engineering students has been the job of the student financed, administrated, and organized A.A. The Association sponsored intramural, intercollegiate, and club activities designed to afford every student some form of interesting participation in athletics.

This year has seen bowling and soccer introduced as varsity teams, and participation in intramural basketball and bowling has nearly doubled. Our varsity teams registered triumphs over the opposition, with the fencing and bowling teams being outstanding.

Major projects accomplished by the Association Council were the introduction of a centralized purchasing agent, a campaign to purchase an electrically operated scoreboard, and the establishment of policy on contracts and schedules. Student interest and school spirit were stimulated by the sponsoring of date nights at home basketball contests and by the formation of a girl cheerleading squad.

The diverse interests of individuals within the student body have resulted in a tendency on the part of special-interest groups to seek a suprabody which would simplify problems of representation and coordination. The Interclub Council acting in this capacity has attempted to encourage the development of clubs within the student body and to coordinate and represent these clubs in their normal functions. Of equal importance, perhaps, is the assistance and supervision given to the clubs at the annual Visitors' Day.

The Interclub Council has witnessed the addition of a new group this year: the Model Airplane Club, which has come into being through the interest of Art Cangiolosi.

The Club Meetings Tonight:
- Newman, 3:00
- Yacht, 3:30
- Radio, 3:00
- Glee Club, 3:15
Basketball

VARSITY BASKETBALL TEAM

JUNIOR VARSITY BASKETBALL TEAM

SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>N.C.E.</th>
<th>Opp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 17</td>
<td>Alumni</td>
<td>45</td>
</tr>
<tr>
<td>Dec. 1</td>
<td>Drew Univ.</td>
<td>49</td>
</tr>
<tr>
<td>&quot; 8</td>
<td>Bloomfield Col.</td>
<td>52</td>
</tr>
<tr>
<td>&quot; 15</td>
<td>Stevens</td>
<td>53</td>
</tr>
<tr>
<td>Jan. 5</td>
<td>Jersey City St.</td>
<td>33</td>
</tr>
<tr>
<td>&quot; 12</td>
<td>Montclair State</td>
<td>59</td>
</tr>
<tr>
<td>&quot; 19</td>
<td>Newark State</td>
<td>54</td>
</tr>
<tr>
<td>&quot; 26</td>
<td>Panzer College</td>
<td>86</td>
</tr>
<tr>
<td>Feb. 2</td>
<td>Montclair State</td>
<td>69</td>
</tr>
<tr>
<td>&quot; 6</td>
<td>Rutgers Pharm.</td>
<td>59</td>
</tr>
<tr>
<td>&quot; 9</td>
<td>Newark Rutgers</td>
<td>54</td>
</tr>
<tr>
<td>&quot; 16</td>
<td>Paterson State</td>
<td>78</td>
</tr>
<tr>
<td>&quot; 22</td>
<td>Newark State</td>
<td>65</td>
</tr>
<tr>
<td>&quot; 23</td>
<td>Drew Univ.</td>
<td>76</td>
</tr>
<tr>
<td>Mar. 1</td>
<td>Newark Rutgers</td>
<td>66</td>
</tr>
<tr>
<td>&quot; 8</td>
<td>Panzer College</td>
<td>73</td>
</tr>
</tbody>
</table>
The varsity basketball team’s story has a strong beginning and a sweet ending but a sag in the middle which was of sufficient duration to cause them to lose the mythical city championship attained last year. Ebb tide occurred when Newark State Teachers eked out a close one at mid-season, and flood tide swamped a bewildered Panzer team in the season’s finale.

Seniors Charlie Hoffman, Dick Passamai, and Captain Joseph Kindzierski were all letter-winners, while junior Charlie Lubetkin led the scoring for the season. The sixteen game schedule was the longest and toughest Coach Bauder has encountered in his eighteen years with the team.
This season the N.C.E. baseball team faced one of its most ambitious schedules and had only four returning varsity lettermen. However, the large turnout of prospects produced keen competition for all the open berths and hopes were high for another successful year.

Co-captains Donald Kroeck and Viri Miller together with Jack Boland and Vic Strashinski, all members of the '51 starting nine, served as the nucleus around which Coach Edward Johnson built his squad. Also on hand were Bill Bachman, Kurt Carlson, Allan Coles, Jack Lyons, Donald O'Brian, and Charles Sweet, all of whom saw limited service last season.

Tony Foti (Class of '51), formerly a pitcher for Toledo (AAA), aided Coach Johnson in bringing along the pitching staff. Assistance with the infielders was given by Joe Wares, a four year varsity man and 1951 Essex County Batting Champ.

The prospects of a Southern trip which included games with Lynchburg and Bridgewater Colleges in Virginia as well as Baltimore and Western Maryland kept all of the boys on their toes continually, trying for the varsity nine.

Baseball

SCHEDULE

April 5 Fairleigh Dickinson*  
  Bloomfield College*  
  (Double Header)  
  "  12 Panzer College*  
  "  15 Baltimore (Md.)  
  "  16 Open  
  "  17 Bridgewater (Va.)  
  "  18 Lynchburg (Va.)  
  "  19 Western Maryland  
  "  26 Stevens  
May  3 Panzer College*  
  "  10 Bloomfield College*  
  "  17 Montclair State*  
  (Double Header)  
  "  24 Open  
  "  31 Drew University  
  (Double Header)  
  *N.J.I.A.C. Games
Starting the 1951-52 season in whirlwind fashion, the N.C.E. swordsmen ran their consecutive winning streak to nineteen meets before being edged by Paterson State, 14-13. Under the guidance of Coach Pel Ringi, the fencing squad has swept all opposition before it and, in four years, has produced two undefeated teams and 28 victories in 31 dual meets with an additional three tournament championships and good possibilities of a fourth this year. This tremendous performance has been largely due to the prowess of the four senior members of the team. Hamilton Bowser has been tournament epee champion for two years. Bob and Bill Taetzsch have alternated as foils champs. Dave Crimmins is remembered for his last point victory at Stevens last year to bring the meet home for N.C.E.
David Crimmins  
Robert Taetzsch  
William Taetzsch  
Hamilton Bowser


SCHEDULE

Jan. 12 Lafayette
Feb. 19 Fordham
   16 Drew University
   15 Newark Rutgers
Mar. 1 St. Peter's College
   23 Stevens Institute
   17 Monclair Institute
   18 Peterson
   15 Tournament
   20 Cooper Union
   13
   29
   17
   10

N.C.E. Opp. 16 11 15 12 17 12 18 9 15 7 13 14
The N.C.E. Varsity Tennis Team started the 1951 season in high gear, shutting out Fairleigh Dickinson by a 9 to 0 verdict. After dropping the second match 7 to 2 to a strong Stevens team, they bounced back with a decisive 8 to 1 victory over Montclair. In a strong finish, they downed a favored Upsala team 7 to 2 shortly after the losers had beaten Duke University.

At the beginning of the 1952 season the loss of Jack Sasseen, the team's stalwart, cut heavily into hopes for a successful season, but early fall practices called by Coach Fithian and the return of senior lettermen Len Wilson, Bill Clark, John Crispano, Gary Hall, and Art Siegel rounded the team into a fine playing combine. With the return of a full squad of veteran players, N.C.E. entered the season with high hopes of emerging undefeated.
In the fall of 1951, the first soccer team in the history of N.C.E. was organized. It competed actively with other metropolitan colleges, and while not compiling an impressive record, it laid the foundation upon which future teams may build. The team, composed mainly of foreign-born students, had an international atmosphere about it. Countries such as Greece, Scotland, Austria, England, Brazil, Costa Rica, and Ireland were represented on the roster.

The team was organized through the combined efforts of Alex Rae and Dolph Rotfield under the administrative guidance of Mr. Swanson. Alex, who has played professional soccer and has attended night school at N.C.E., is coaching the squad. Dolph, a former New York All-Scholastic player, captained the team in this, its first year.

**SCHEDULE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Opponent</th>
<th>Score</th>
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<tbody>
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<td>Nov. 10</td>
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<td>6—1</td>
</tr>
<tr>
<td>Oct. 17</td>
<td>Pratt Institute</td>
<td>10—0</td>
</tr>
<tr>
<td>“</td>
<td>Stevens</td>
<td>8—0</td>
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<tr>
<td>“</td>
<td>Arnold College</td>
<td>3—2</td>
</tr>
</tbody>
</table>
With over two hundred students participating on thirty-three teams, the Intramural Basketball League has achieved the distinction of being the largest, most active athletic group in the college. Each team has played not only the average eight-game schedule but has had the opportunity to arrange additional games and to enter the league playoffs.

A committee of four seniors—Messrs. Boylan, Flanigan, Hayduk and Casatelli—shared the headaches of scheduling and supervising league competition. The efficient operation of the league was due to the coordination of these Directors with Mr. Swanson and his able assistant referees.

Top-seeded teams in the Final Elimination Tournament, which decides the league champions, were sections CE 8A, Ch 6B, and G 4. With serene confidence, each of the remaining teams considered themselves to be dark-horse favorites.
The two-year-old NCE Intramural Bowling League this season achieved recognition by the Athletic Association. As an outgrowth of the 1950-51 season, a conclave of interested students—Bill Endlicher, Bill Taetzsch, Hal Wolf, Tom Brennan, Bill Castles, Bill DeMauea, and others—prepared a constitution which outlined rules and regulations for the conduct of the league. Professor Duursema was appointed faculty adviser, and plans were made for the following year.

This preliminary organization resulted in a pronounced improvement in the league, and the 1951-52 season saw a record sixteen teams participating over a period of twenty-two weeks.

The top ten bowlers in the intramural league, who constitute our varsity squad, have fared well in intercollegiate competition. Champions of the New Jersey Intercollegiate Conference in the first year of N.C.E. participation, the squad turned in a record of 25 wins against only 5 losses. Memo Hal Wolf led all conference bowlers with a 25-game average of 175 pins.

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**SCHEDULE**

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<tbody>
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<td>16</td>
<td>Panzer College</td>
<td>2307</td>
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<tr>
<td>30</td>
<td>Paterson State</td>
<td>2237</td>
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<tr>
<td>Dec.</td>
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<td>1874</td>
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<td></td>
<td>Montclair State</td>
<td>2161</td>
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<tr>
<td>Jan.</td>
<td>Fairleigh Dickinson</td>
<td>2542</td>
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<tr>
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<td>Fairleigh Dickinson</td>
<td>2414</td>
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<tr>
<td></td>
<td>Fairleigh Dickinson</td>
<td>2390</td>
</tr>
</tbody>
</table>

Doubling last year’s enrollment in the badminton league, thirty-five students are participating actively in a season of two months duration. Space and schedule requirements have limited play to singles competition, with a full round robin tournament established by Director Stanley Tuttle.

Defending Champion Harry Novick is favored to retain his title for a second year, but his competition is keen. Interest should be heightened by the entrance of co-ed contenders in the league.

As if one season were not enough, League Director Stanley Kurzeja again took on the juggler’s fete of organizing and directing twenty-five teams through a softball schedule involving park reservations, class schedules, equipment loans, and April showers. The sum of it all, however, has been a very successful season.

The season was high-lited by several claims of supremacy based upon the records of undefeated teams, with wild assertions of relative pitching, batting or fielding merit. Unfortunately, the season was too short in duration to select a winner by logical means, and the claims of many teams went unproven. Branchbrook Park resounded to the cheers of N.C.E. teams until the summer vacation called a halt to the proceedings.
The Table Tennis Club is one of the largest and most active clubs in the school. Under the leadership of Paul Currier, President, and Robert Jacobs, Vice-President, and with the advice of Mr. David Mangnall, the club was reorganized after losing most of its varsity team last year. The club has participated in a long line of intercollegiate and intramural tournaments.

In the past, the Newark College of Engineering Table Tennis Varsity has been matched against teams from Upsala College, Newark Rutgers, Newark State Teachers College, Montclair State Teachers College, and Union Junior College. The team has already gained recognition in the New Jersey State Collegiate and National Collegiate Tournaments.

At present, the team, in the order of their intramural standings, consists of Joseph Sheehan, Robert Jacobs, Robert Taetzsch, Richard O'Berc, Marvin Smith, and Henry McLaughlin. This team compares favorably with the best teams of the past, and hopes are high for a successful spring season.
The Technician, the college's student newspaper, has been the official chronicle of student news and views since the early years of N.C.E. A monthly publication, it is currently published as a four-page, six-column edition, although until a few years ago, its format was constantly changing.

Because the Technician's aim is to reach every student on the campus, much attention has been given to articles of general interest. Every attempt has been made to keep the student body informed of the latest developments in such constantly changing areas as government deferment policies and engineering manpower. Items of particular interest are grouped together in columns such as the fraternities' "Greeks' Gossip." The Technician strives to increase interest and participation in sports by giving complete coverage of all varsity competition and up-to-the-minute standings in the intramural leagues.

Editorially, the Technician takes a firm stand on many vital issues and supplies space freely for any student to air his views.
Under the leadership of MacLaughlin, Pastore, and Purdy, the Dance Club has continued this year its basic policy of providing dance instruction and social participation for the students at N.C.E.

An eleven-week program of instruction in ballroom dancing was inaugurated, with an emphasis on fox trot, rhumba, tango, and waltz rhythms. Following this, a program of social participation gathered more than fifty men and women as our gym was converted to a gala ballroom weekly.

The success of the Dance Club program is evidenced by the confidence and ability of its members and by the increasing number of couples who participate in class and fraternity dances. A meeting place for the many . . . it's the Dance Club Friday night!
The promotion and encouragement of rifle marksmanship among the members of N.C.E.'s student body has been the goal of the Rifle Club. It has advanced its purpose through both intracub practice sessions and intercollegiate competition. This marks the end of the club's second season as a member of the Metropolitan Intercollegiate Rifle League. The past season's activity was highlighted by an upset victory over the strong team of Rutgers University. With many of the best shots returning, next year should bring an outstanding team to the firing line.

The Radio Club, an unofficial part of the E. E. Department, has its headquarters in the heart of the electrical laboratory and finds this relationship to be exceptionally helpful in the performance of electrical experiments. In general, the Club tries to assist the student in the acquisition of practical experience to supplement the theory learned in class. Materials and working facilities are provided for use by the student so he may study various devices in construction and operation as well as in theory. For the communications bugs the Club maintains a licensed ham station, W2JPK.


The Golf Club of N.C.E., while suffering from a limited season when in school, has a zealous group of followers. After warming up their game on the gym's driving range during the winter months their activity swings out into the open in the spring. The club which is advised by Mr. Robert Haubner holds weekend golfing trips and both the beginners and the more proficient members profit by them in both experience and enjoyment. The program of the club has enlarged considerably and has advanced to the stage of planning matches with other local colleges on the greens of nearby courses.


Under the very capable direction of Prof. Fernsler, the Glee Club has managed to extend its functions despite a relatively small membership. Besides the usual carolling in Weston and Eberhardt Halls at Christmas time, the club also performed before the Advertising Association of Newark and presented a program on Station WVNJ. The Glee Club presented its regular Visitors’ Day performance and is hoping to give a concert in the near future. The desire to sing is the only membership qualification; the ability to sing is the goal of rehearsals.
The Yacht Club brings to the students at N.C.E. the opportunity to experience the thrills of handling small boats. Each weekend of the spring and fall, outings are held where the members learn the proper methods and techniques of handling sailboats under all conditions. The club has at its disposal boats ranging in size from twelve-foot dinghies to twenty-eight foot Cape Cod knockabouts. Occasionally regattas are run against the yacht clubs of other colleges in this vicinity. At present the club is negotiating to become a member of the Middle Atlantic Intercollegiate Yachting Association. As a member it will race with all the other colleges under the jurisdiction of the MAIYA.

The Photography Club has tried to widen its appeal to benefit both beginners and the more advanced enthusiasts. At regularly scheduled photo sessions, the novices are shown how to use their cameras, how to pose their subjects, and how to get the best lighting for the desired effect. Those with more experience have the opportunity of experimenting with new ideas they may have.

The activities consist of lectures, demonstrations, indoor photo sessions, and field trips. Special photo work is sometimes asked of its members by students, other organizations, and instructors. A tour through a large photo school in New York City featured the Photography Club’s spring field trip.
A major part of the activities of the Chess Club was concentrated in the drawing rooms during unscheduled hours. Games were played spontaneously at every opportunity. Enthusiasm and good fellowship prevailed, and many an hour more important elsewhere was spent more enjoyably there.

The intercollegiate team wisely judged its season in terms of enthusiasm and experience, for its record of losses slightly overbalanced the wins. Against a record of four losses and one win in intercollegiate competition, the team found much sport in a four-move checkmate which featured the victory over Newark-Rutgers.

The word "bridge" is rapidly becoming synonymous with engineering at the college, as the Commons continually resounds to the vocabulary of the bridge world.

Bridge classes were started shortly following the opening of the Fall and Spring semesters and were continued for about a month. This initial instruction was sufficient to instill in the members the desire to gain proficiency through further practice. Having been exposed to the bridge bug, they awaited only the arranging of the first college bridge tournament. The turn-out was extremely gratifying, and enthusiasm for the game has continued to soar as a result of regular monthly tournaments.

Plans are also being made for several intercollegiate matches, which the club has high hopes of winning.
This marks the completion of the Newman Club’s second successful season on the campus. The club attempted to enrich the spiritual and intellectual life of the Catholic students by offering a varied program of speakers followed by group discussions.

The club’s social program was highlighted by a successful Winter Dance and was rounded out by the Annual Communion Breakfast. An ever-expanding list of activities has made the Newman Club one of the vital groups on the campus and assures a bright and prosperous future.

The International Relations Club of N.C.E. attempts to aid students in understanding international affairs and in keeping abreast of the happenings at the United Nations. It provides a program of forums for student discussion and developmental experience. All students are eligible for membership in the club. Those who attend meetings for one semester and who take an active part in one program become eligible to receive the I R C Key. Under the direction of Dr. Frank M. Durkee, this group plays an important role in extending the education and interests of the student members to matters of world-wide consequence.
Prepared by student members of the American Society of Civil Engineers, the Surveyor is a small newspaper circulating throughout the Civil Engineering Department. Its feature articles discuss speakers currently appearing at the A.S.C.E. meetings and include subject matter on the Civil Engineering profession. Some spice is added through the use of humorous stories and cartoons of life in the Civil Department. Dan Biondo, who served as editor of the publication, had as his staff such writers and humorists as Bill Bloodgood, Frank Hall, Gus Moscerino, Ken Rieman, and Frank Vitek. The Surveyor is distributed to the members at the monthly meeting of the A.S.C.E.

The N.C.E. Christian Fellowship is a student organization whose scope is to foster in the young people of the college fellowship, bible study, and worship. The officers of the group, President Doug Gabrielson and Secretary-Treasurer Anthony Maffucci, along with adviser, Prof. F. G. Lehman, plan weekly meetings at which the individual members take charge. From time to time an outside speaker is invited to address the group on a topic of mutual interest.

The club is affiliated with the Inter-Varsity Christian Fellowship, an organization which has chapters in fifteen foreign countries and over three hundred colleges in the United States.
Newark College of Engineering

UNDERGRADUATE PROGRAM

Courses Leading to the Degree of Bachelor of Science in—
  Chemical Engineering — Civil Engineering
  Electrical Engineering — Mechanical Engineering

GRADUATE PROGRAM

Courses Leading to the Degree of Master of Science in—
  Chemical Engineering — Civil Engineering
  Electrical Engineering — Management Engineering
  Mechanical Engineering

The College is a public institution supported by both the City of Newark and the State of New Jersey. It is accredited by the New Jersey State Board of Education, New York State Board of Regents, the Middle States Association of Colleges and Secondary Schools, and the Engineers' Council for Professional Development.

1952 FALL TERM OPENS SEPTEMBER 17
FOR UNDERGRADUATE INFORMATION, ADDRESS:
  DIRECTOR OF ADMISSIONS

FOR GRADUATE INFORMATION, ADDRESS:
  CHAIRMAN, GRADUATE DIVISION

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INSTITUTE OF RADIO ENGINEERS
SOCIETY FOR THE ADVANCEMENT OF MANAGEMENT
CONGRATULATIONS

TO THE CLASS OF '52

Three Thousand five hundred of your predecessors now members of the Newark College of Engineering Alumni Association, join in wishing you new members every success.

Ira E. Bergman, '24
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