



# THE SCHOOL OF TECHNOLOGY

# TECH NEWS

## CITY COLLEGE OF NEW YORK

VOL. XVI — No. 2

WEDNESDAY, FEBRUARY 21, 1962

222

BY STUDENT FEES

## Engineering Curriculum Is Revised

### Tech Council Sets Goals; Rally Called In Knittle Lounge

### BHE Approval Given Mon. Night

By JOSEPH NADAN, Editor-in-Chief

On Monday, February 19, the Board of Higher Education passed vast revisions of the engineering curricula. The changes, proposed by several departments of the School of Technology, are the result of long and detailed study in technological subject areas. They provide for additional courses in mathematics for all undergraduates in engineering and for six credits of non-technical electives to be taken in the junior and senior years from

among a large number of courses in the arts, languages and social sciences. The changes in the four branches of engineering will not change the number of credits required for the Baccalaureate degree but will reduce the number of class hours.

The recommended date for the changes is September 1, 1962; however, the Faculty Committee on Course and Standing has been authorized to discontinue old courses and begin new ones then or on the earliest dates thereafter consistent with sound practice. In addition it has been authorized to adjust the curricula of individual students so as to best help the student. In effect this means that while the vast majority of the new courses will be instituted in the coming fall term, some courses may not be started immediately and still

By SAMUEL EIFERMAN

At the first meeting of the Technology Council this term, on February 8, Frank Ferrara, President, outlined the goals of the Technology Council for this term. Herb Berkowitz, chairman of the Student Government-Publicity Regulations Committee, spoke to the council. It was decided by mutual agreement between the council and Mr. Berkowitz that there would be instituted at the North Campus a system of registering publicity comparable to the one on the South Campus. A committee was organized by Tech Council to help formulate the publicity set up on the North Campus. The committee chairman is Mike Rukin.

Another committee was formed to look into the possibilities of obtaining more lounge space on the North Campus. This committee consists of Mel Engel, President of AIEE-IRE, Stuart Simon, and Bruce Atlas. One of the more important committees formed was the one to investigate the possibility of having a ceremony in January for the January Graduates. This committee is headed by Samuel S. Eiferman with Mike Rukin and Nat Shaye making up the rest of the committee. The committee will try to get some sort of ceremony in January for the people who graduate at that time. The Intra-Campus Activities Committee was formed to increase the volume and exchange of publicity between North and South Campus. The chairman is Jerry Kohn and the assistant chairman is Dena Maloney.

Posters were distributed at this meeting by Tech Council's President that advertise National Engineers Week. (February 18-24) The posters were to be put on the bulletin boards of the councils members. A letter was also sent to the Student-Faculty Cafeteria Committee protesting their ruling that students are not allowed to lounge, study, read, or loiter during the peak hours of 11:00 A.M. to 2:00 P.M. in the North Campus Cafeteria. The letter also suggested that coat hangers be put up along the walls and columns of the North Campus Cafeteria so that coats wouldn't be put on seats thereby taking up more room.

The council also formed a committee, headed by Mike Rukin, to prepare and publish an information booklet on how to remain an engineer and it

will be distributed to all engineering students.

During the period following the February 8 meeting till the February 15 meeting of the council the committees worked hard to attain their goals. The January Graduation Committee went to see President Harry N. Rivlin. Dr. Rivlin said that he was all in favor of a ceremony in January but also stated that having a commencement in January like the one in June was out of the question at the present time. The reason is that there is not enough room to hold a commencement exercise with about 150 guests, which would have to be invited for a regular commencement, in January. Lewisohn Stadium is used for this purpose in June but cannot be used in January. Dr. Rivlin suggested that the committee consult Professor Bailly Harvey to make arrangements for a ceremony which will be as much like a commencement as possible.

Meanwhile the Intra-Campus Activities Committee stimulated Gamma Sigma Sigma into starting a ticket agency operating on the North Campus. It also

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### EDITORIAL:

## Publication Fees Cut

On Tuesday, February 20, the Student-Faculty Fee Committee met and swiftly cut fee allocations to all day session newspapers. These vast reductions were necessitated by the lack of Student Activity funds caused by the drop in enrollment, according to Prof. Abramowitz. Campus and OP have been cut to eleven issues each and TECH NEWS has been cut to five. What is still worse is that OP and Campus have gone to press this term a total of four and five times respectively. In addition OP owes monies on three of last term's issues. This leaves OP four issues and Campus six; however, this is still not unbearable. After this issue TECH NEWS will have three permissible issues left. Should we run "ad sheets"? Or perhaps we should charge a nominal fee. However, we feel the solution lies not in the publications' domain, but rather in the lack of Student Fees. We therefore are in favor of raising the student activities fee from \$2 to \$3. This increase, while not being felt by the student, would relieve many pressures from future fee allocation committees and would allow the many organizations of the school to operate as they desire.

The era of the dormant tech student has ended. We urge you to support this fee increase by personally contacting SG officers. In addition, attend the "Lounge Rally" on March 8 in Knittle Lounge.

## \$1,500,000 Computer Complex Is Planned For Shepard Hall

### Students Oppose Loss of Lounge

"Every time something new comes up and the administration needs more space the students get elbowed out." That's what Richie Weisberg had to say about the loss of the proposed lounge in Shepard Hall to make room for a computer complex. Weisberg had spent considerable time and energy trying to get a combined lounge and bookstore placed in the room now slated for computer occupancy in the basement of Shepard Hall. But he had a lot of trouble trying to see Professor d'Andrea, chairman of the Committee on Planning and Design in order to discuss it with him. Weisberg and Mel Pell, a reporter for this paper, finally obtained a brief interview last Wednesday at which time they discovered that at Dean Allan's suggestion the room had been proposed as a special computing room for the

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By MELL PELL and TED SEMEGHAN

The City College is now conducting negotiations with three large computer firms to install a \$1,500,000 computer center. Mr. Demos Eitzer, who is presently in charge of the school's digital computer, and Professor Pe, both of the Electrical Engineering department, are in charge of the discussions and of finding the necessary facilities. It is expected that final arrangements will be concluded by the end of the term and that the electronic brains will be in operation by the beginning of fall. The center will be housed in the basement of Shepard Hall in the space now occupied by the ROTC storeroom which will be moved into Harris.

#### A Showplace

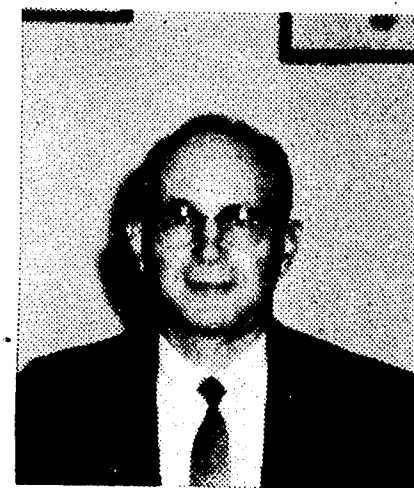
The special computer room is expected to be "a showplace of modern computing equipment." It would be completely glass enclosed so that visitors may watch the operations therein and so that it can be properly air conditioned. The computers will be

placed on new false or "floating" floors and will have a separate entrance to the street. Capable students will be able to use the computer starting at the sophomore level. The cybernetic complex will be capable of solving nonlinear equations; the modest digital computer now used at the college can solve only linear problems. The cost of constructing offices and making other structural changes will be borne by the college, but the private firm is expected to absorb the cost of building a separate entrance from the street.

#### Was To Be Lounge

The ROTC storeroom, which was originally expected to be a lounge, was chosen as the best of several possible locations of the computer complex because of its centrality, accessibility to the street, and ease of policing. A room was needed which could be accessible to tech students and also the registrar and business manager. The computers

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Dean Allan

others may not be dropped at once.

In an interview on Friday, February 16, Dean Allan noted some of the reasons for the changes. Whereas many departments have been stressing analysis and the solution of problems, there has existed a gap that had to be filled. In essence, what distinguishes engineering from the sciences is the idea of design accompanied by theory. The theory in practice today is that by a thorough knowledge of analysis techniques a student will be able to do design work is valid; however, in addition to this background it is felt that courses in engineering design should be given.

What follows is a summary of the changes in each of the individual curricula; from this the individual student will have an idea of the changes affecting him. In addition there is included a summary of the new courses being offered. Engineering students should contact their departmental offices later this

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## Tech Society Leaders For Spring Term

### TECHNOLOGY COUNCIL

President — Frank Ferrara  
Vice President — Kenneth Rosenberg  
Treasurer — Mike Rukin  
Recording Secretary — Lucinda Mattera  
Corresponding Secretary — Sam Eiferman

### ALPHA MU EPSILON

President — Sy Morse  
Vice President — Jack Wood  
Treasurer — Jack Zable  
Recording Secretary — Kurt Rommel  
Corresponding Secretary — Fred Tepper  
Tech Council Rep.—Nat Shaye

### A.I.E.E. - I.R.E.

President — Mel Engel  
Vice President — Barry Horowitz  
Executive Vice President — Stu Perlow  
Treasurer — Sy Glasser  
Recording Secretary — Robert Sabatini  
Tech Council Rep. — Dave Tuttleman.

### A.S.C.E.

President — Joel Garelick  
Vice President — Larry Chenkin.

### A.S.M.E.

President — Nat Shaye  
Vice President — Jack Zable  
Treasurer — Fred Tepper  
Secretary — Bernie Zimmerman.

### ARCHITECTURAL SOCIETY

President — Howard Kaplan  
Vice President — James Sarantitis  
Treasurer — James Sowlakis  
Secretary — Mike Wolfe.

### EPSILON NU GAMMA

President — Ian McKechnie  
Vice President — David Gurock  
Treasurer — Ronald Rothenberg  
Secretary — Thomas Ezellus.

### ETA KAPPA NU

President — Michael B. Rukin  
Vice President — Stanley Altman  
Pledgemaster — Sol Gems  
Recording Secretary — Burton Gilman  
Corresponding Secretary — Bill Zimmerman  
Bridge Correspondent — Gerald Kaplan  
Tech Council Reps.—Stephen Honickman, Bob Sabatini  
Co-Catalogers — Gerald Lipsky, chief, Fulvio Corti, James Leary, Joel Shafran.

### PI TAU SIGMA

President — Stan Makadok  
Vice President — Charles Siuori  
Secretary — Mike Mastorotaro  
Treasurer — Tina Doyle.

### SOCIETY OF AUTOMOTIVE ENGINEERS

President — Bernard Banchkoff  
Vice President—Ron Hoffman  
Treasurer — Don Steamer  
Secretary — Al Glickstein

### S.A.M.E.

President — Richard Lander  
Vice President — Paul Jacobs  
Treasurer — Mark Brenson  
Secretary — Robert Jeanette

### S.W.E.

President — Virginia Efros  
Vice President—Anna Franze

Treasurer — Carl Stirble  
Secretary — Millicent Rouso

### TAU BETA PI

President — Jerry Avins  
Vice President — James LaFrieda  
Treasurer — George Vachtsevano  
Recording Secretary — Kenneth Sussman  
Corresponding Secretary — Fred Brodbeck  
Tech Council Reps. — Tony Doleimasco, Bill Stern  
Co-ordinator of Tutoring — Harvey Cohen.

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Co-Editors-in-Chief — Ed Rosenthal, Ira Skurnick  
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## Folk Music

The Finley Board of Managers is interested in arranging a Folk music hour each week to be held in the Finley Student Center. If you can play a guitar or if you like Folk music and songs please leave your name and telephone number in the Finley Board of Managers' mailbox in room 152 Finley.

## WANTED (ALIVE) REWARDS!

### WRITERS

### PHOTOGRAPHERS

### CARTOONISTS

### TYPISTS

### IF FOUND CONTACT

## TECH NEWS

F335

AU 3-0054

## Action Spurs HK Ners

Once again last semester, Beta-Pi Chapter has rendered service to both the school and its own members. At the semi-annual induction dinner held at the end of last term at the C & L Restaurant, Beta-Pi was awarded an honorable mention in the College Chapter Award Competition. Mr. Harlan J. Perlis, President of the New York Alumni Chapter, made the presentation. The award is presented once a year to one outstanding chapter. Although happy in receiving an honorable mention, this college chapter is working towards bringing the first place award to the college this coming year. Also at the dinner, Mr. Dennis Young was presented with an award by Beta-Pi for being the outstanding member of the sophomore class. Professor H. Taub, Chairman of the Electrical Engineering Department, was surprised with a birthday cake in celebration of his birthday. Even with all the time consumed by the presentation of awards, the membership still found plenty of time to laugh at an enjoyable pledge show and displace a couple of hips doing the twist.

The tutoring program sponsored by HKN was expanded. The program includes tutoring in the fundamental operation of the slide rule and in basic electrical engineering courses for those students requesting assistance.

During the spring term HKN expects to have another Student-Faculty bowling night. They are going to try to expand their bowling activities into a bowling league for the school of Technology. Once again this spring the E.E.s will answer the challenge and play the membership of Beta-Pi softball.

## Letters...

(Continued from Page 4)  
represents the school of Technology. Thus if the editorial was referring to the Tech platform, and since Tech News is supposed to represent the students in Technology, the only course of action would be to urge the administration to have a bookstore established on North Campus.

Sincerely yours,

Linda S. Graber

# Your Future in Electronics at Hughes

As the West's leader in advanced electronics, Hughes is engaged in some of the most dramatic and critical projects ever envisioned. Challenges for your imagination and development are to be found in such diversified programs as:

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### CAMPUS INTERVIEWS

**February 28, 1962**

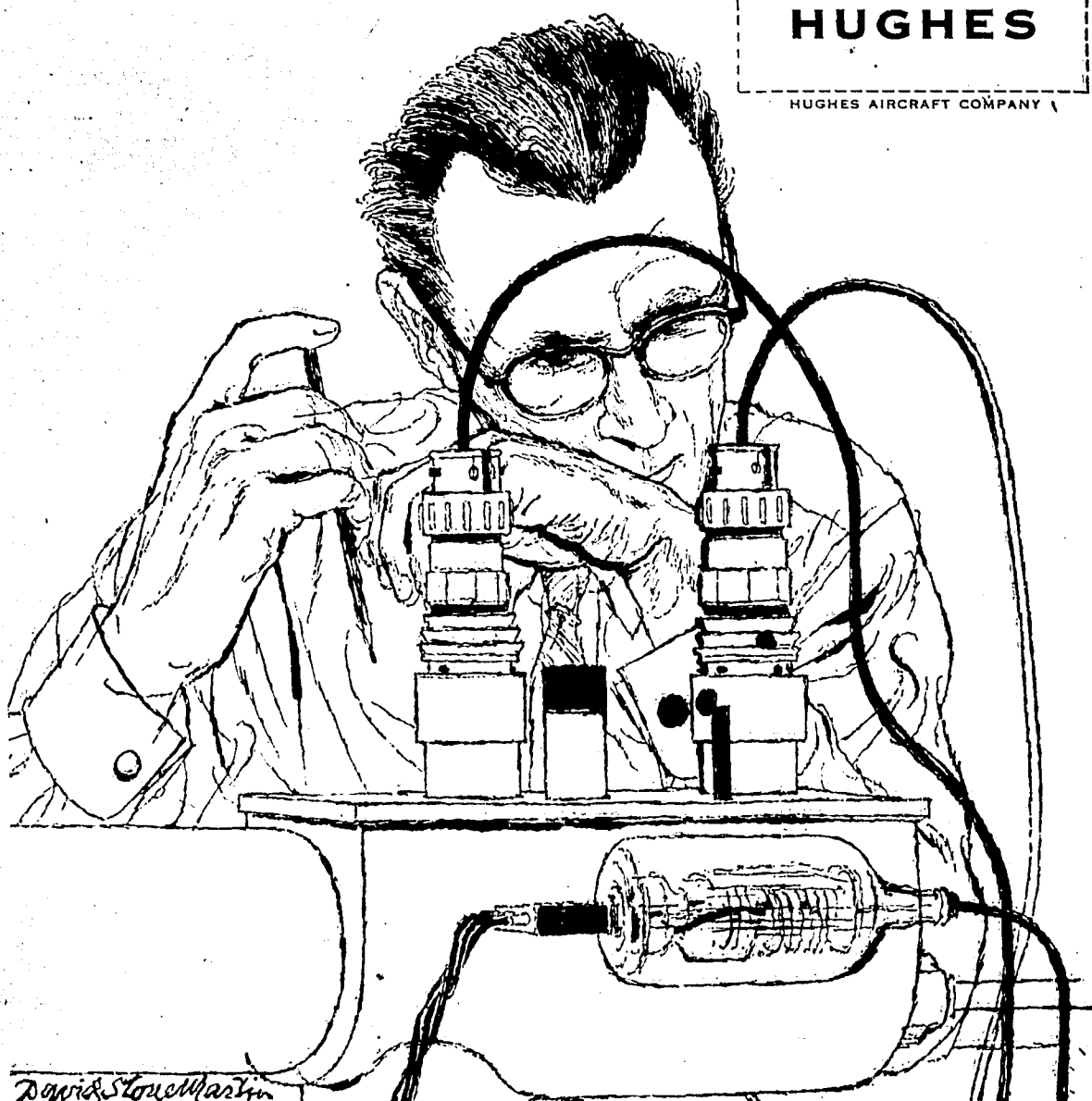
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## Company Changes In Spring Visits

Mr. E. W. Schnaebelle announced that the following changes and additions to the Spring Company visits have been made:

No. 30 U.S. Geological Survey — February 23 — also seeking Biology, Physics and Math majors.

No. 34B Curtiss-Wright Electronics Division — February 23 — seeking E.E.'s for research, design and development in digital computers, radar and communications.

No. 34C Curtiss-Wright Propeller Division — February 23 — seeking E.E.'s and M.E.'s for design and development. On the Job Training (OJT) in Caldwell N.J. Must be U.S. citizen without imminent military commitments.

No. 36 Linde Co. — February 26 — No C.E.'s but seeking Physics majors.

No. 40 Hamilton Standard — February 27-28 — Also seeking ChE's in materials engineering and Math majors as Programmer Trainees. Indicates heavy demand in Missiles and space section.

No. 41 Revlon — February 27 — seeking top Liberal Arts students. High grade standing, extra curricula activity record, interest in business management. Formal training program.

No. 42 National Bureau of Standards — February 27 — will not limit interviews to top 1/4 as previously announced. Research and development.

No. 46 Hughes Aircraft — February 28 — seeking C.E.'s only.

No. 46 U.S. Weather Bureau — February 28 — schedule opened Wednesday, February 14, on first choice basis February 9. Seeking E.E.'s for development, Physics for R & D, math majors as programmers, and meteorology majors — All options, OJT All states, Pacific, Caribbean and Polar regions.

No. 48 Polarad Electronics — February 28 — cancelled.

No. 48A Ciba Pharmaceutical — February 27 — schedule opened February 14, on first choice basis February 9. Seeking Chemistry majors for work in organic and analytical chemistry, Biology majors in microbiology and pharmacology. OJT Summit, N.J.

No. 52A Food Machinery and Chemical Corp. — March 2 — schedule opened February 16, on first choice basis February 13. Seeking ChE's for R & D, Production, Process. OJT U.S. Citizenship. N.J. and other locations. See brochure.

No. 55 Sylvania — March 2 — wants top 1/3 E.E.'s, Physics, Math for R & D. Also indicates limited need for ChE's. U.S. Citizenship.

No. 55A Consolidation Coal — March 2 — Cancelled.

No. 62 General Precision Laboratory — March 6 — Cancelled.

No. 65A Combustion Engineering — March 6 Schedule opened February 20, on first choice basis — February 15. Seeking ChE's and M.E.'s for R & D, Sales, Applications, Field Service. Formal training 1 year. Windsor Locks, Conn. Also Tennessee, Indiana, and Pennsylvania.

**Editor's Note:** In our next issue, in continuance of our policy of keeping the Tech Stu-

dent well informed, we shall continue the changes and additions made by the Placement Office. Our sincere thanks to Mr. E. W. Schnaebelle, Placement Office Director for making these changes available to us.

## Tech Council

(Continued from Page 1)

contacted the School Affairs Committee of Student Government to improve the bulletin board situation on North Campus. Starting February 26, publicity can be registered on North Campus in rooms 117 and 118 Shepard Hall during prescribed hours. This was more work of the Intra-Campus Activities Committee.

At the February 15 meeting of the Technology Council the committees made their reports. The lounge Space Committee reported that it was having trouble finding a room on the North Campus that could be used for a lounge. The only room suitable was the room now occupied by the Military Science Department's Store-room. This room was slated to

be turned into a lounge or a combination lounge and bookstore. Now it seems the committee found out that it may be used to house new IBM machines instead. The council decided to send a letter to Professor D'Andrea, head of the committee that is appropriating rooms, and ask that the Students of the School of Technology be allocated lounge facilities on the North Campus.

There was a motion which asks the Technology Students to go to Knittle Lounge on March 8 at 12:30 as a demonstration against the ridiculous Student-Faculty Cafeteria Committee's regulation that does not permit studying in the Cafeteria between the hours of 11 and 2. This motion was passed and it is designed to show the faculty that we need lounge space badly up North and that the cafeteria is the only place the Technology Students can gather in up North. There was a committee formed to organize this sit-in action, Mike Rukin is chairman and the co-chairman is Uri Sela with Stanley Strauss being member at large.

## Opposition

(Continued from Page 1)

tech school instead of the previously expected lounge.

They spent the next several days together with Mike Rukin, treasurer of the Technology Council, speaking to various faculty members of the tech school and men in the Buildings and Grounds department trying to find out what other rooms were available, what are the merits of each, and why the proposed lounge space was finally chosen.

Among the alternate locations suggested were the strength of materials testing lab in Goethals, the Marlies laboratory and its adjoining rooms in Baskerville, and Steinman Hall. Mr. Demos Eitzer of the Electrical Engineering department had been given the task of choosing the location and he picked the basement of Shepard Hall.

Though discussions with the administration are continuing, mass student action is planned. The Technology Council has already passed a resolution calling for a student sit-in and stand-in in Knittle Lounge to demon-

## COMPUTER

(Continued from Page 1)

would also have to be available 24 hours a day and therefore must be directly accessible to the street. According to Mr. Eitzer, Steinman Hall was not chosen because "The new technology building is set up so that each individual department is located as an entity. To ask any one department to give up 3,500 square feet of floor space would impose severe hardships on that department." The storeroom has only 2,600 square feet, but it has been adjudged adequate anyway.

Computers will be playing an ever increasing part in the work of engineers, and consequently a similar role is planned for computers in the tech curriculum. The college at present has a Royal McBee LGP 30 digital computer and four analog computers.

strate its inadequacy and the need for more lounge space on North Campus. A resolution calling for Student Council to endorse this demonstration is expected to be introduced tonight.

## THE BELL TELEPHONE COMPANIES SALUTE: JOE BOBROWSKI

Although he's been with Bell of Pennsylvania only six months, Joe Bobrowski is already making an important contribution at the Company's Data Processing Center in Harrisburg. He's perfecting a "mechanized" way to speed up payment of monthly invoices from 1700 suppliers who sell to his company. Joe's excellent idea could make

an already efficient payment process even more efficient!

Joe Bobrowski of the Bell Telephone Company of Pennsylvania, and other young men like him in Bell Telephone Companies throughout the country, help bring the finest communications service in the world to the homes and businesses of a growing America.



**BELL TELEPHONE COMPANIES**





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Editorial Policy of TECH NEWS is determined by a majority vote of the Editorial Board

## Letters

With the completion of the new Tech building there are going to be some vacant spaces in Shepard Hall. As mentioned in the Tech News issue of February 7, 1962, one of the areas to be vacated is the ROTC store-room located outside the cafeteria. At present there are two main proposals that have gained support and Tech News' proposal.

I personally, along with most Tech leaders, favor converting this area into a bookstore-lounge. Even though this would take away much needed lounge space the many advantages outweigh the disadvantages. Students would be able to browse through the store without having to travel to south campus. With the extension of the Bookstore on North campus it would also be possible for the store to stock more materials needed by students, for which the bookstore has no room at present.

The bookstore has offered to maintain the lounge and also to pipe music into it. If this is done, the North Campus students can look forward to a comfortable lounge more pleasant than the Knittle Lounge.

In the last issue of Tech News the viewpoint of an alternative solution was presented. While this idea might have some merits to the North Campus students, it would hinder the operation of the bookstore. In the Editorial it was suggested that "during the peak periods of activity of the bookstore, namely during and immediately after registration, a part of the lounge be set up as a temporary branch of the bookstore in which students could place orders for their texts." It then proceeds to say that the student could then go south to pick up their books "without having to fight the crowds and Burn's guards."

The only way students would be able to avoid crowds would be if the bookstore never had a crowd. While possibly your suggestion would make it easier for a North Campus student to get his books it would be unfair to South Campus students besides the added expense to the bookstore. The proposed situation would be ideal for the lazy student. Every student would like to walk into the bookstore and have a package of his books handed to him. However, the rest of the student body would still have to hunt for their books. Also, before last fall the bookstore had clerks who got the students' books. This caused a bottleneck which has been lessened since the bookstore has been made self service.

Thus, I cannot see how Tech News could conceive of such a ridiculous proposal. Furthermore, I feel that it is the duty of Tech News to try to obtain a bookstore on North Campus whether in the old ROTC store-room or on some other North Campus facilities.

There was one other point in this editorial which perplexed me. It stated, "it would surely be a shame to waste directly needed lounge space for a semi useless bookstore outlet just to fulfill campaign promises." I would just like to point out that a North Campus Bookstore was the main issue of the slate sponsored by T.I.C. which

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## TECH LIFE

By TED SEMEGHAN



Are you in the market for a summer engineering position? Have you tried before, but unsuccessfully, to obtain a summer job in your undergraduate field? In today's column, I will present some helpful hints on hunting for a job.

In order to be fair, I would like to acquaint you with the fact that an engineering student who is not a junior by this summer has a very poor chance of working as an engineer during the summer vacation period. Even engineering students in the junior and senior years will have to spread themselves around and write to as many companies as possible for an opening in their field of interest.

Here is a list of facts that were obtained from Mr. Richard Nagel,\* the Summer Employment Director at the College on the summer job situation.

1. Of the great number of students (engineering, math, and science) who apply at the summer workshop at the college, only 10% are normally accepted for summer work. Last year, out of approximately one thousand applicants for summer engineering positions, one hundred to one hundred and fifty were placed.

2. Most companies want students in the (a) top 10% and (b) top 1/3. An approximate index for the top 10% is 0.88 and for the top 1/3, 0.83. (Since most departments will give you your index and position in class, check at the respective department offices.)

3. U.S. citizenship seems to be a requisite for many summer opportunities because many companies are working on military and governmental contracts. Since it is much harder to get security clearance for non-U.S. citizens, they usually will be rejected at such positions.

Since the summer employment center at the college is not the only outlet for summer work, I will list a few of the other available choices:

1) Apply at the engineering employment agencies located throughout the city. Though they cater mainly to graduate engineers, you may be lucky.

2) Try the New York City departments who employ engineers. The many vacations taken during the summer months open job opportunities for the student engineer. Apply at:

N.Y.C. Dept of Highways  
N.Y.C. Dept of Traffic  
N.Y.C. Dept of Marine and Aviation  
N.Y.C. Dept of Markets  
N.Y.C. Dept of Health  
N.Y.C. Dept of Water Supply, Gas and Electricity  
as well as many others.

3) There are many engineering concerns in your own neighborhood which you might have overlooked. Since you are living close by, the company may hire you for summer work on the hope that you will work there while going to school in the winter months. Also, Long Island, Queens and New Jersey are saturated with industries that regularly hire engineers. Try these and you may hit on the right one. One advantage that the CCNY student rarely utilizes is his ability to visit the companies in the New York area. Though this may appear unimportant, personal contact with the personnel agency is very highly recommended and has secured many summer jobs where a letter or resume would have been discarded. The company usually has its own employment application form and searches through these long before the resumes and letters are read.

4) Federal tests (look at the bulletin board outside the employment agency in 424 Finley will give you more information) are given regularly for engineering aide and junior engineers. In order to secure the job, Mr. Nagel said that you should take the Civil Service examination at the company which has openings for these appointees. He said that most of the exams taken in the City are filed and take a long time to reach the plant that needs the positions filled.

A calendar of the "Summer Workshop" schedule, which is run by Mr. Nagel, is presented below:

Monday — 10:00 to 11:00  
Tuesday — 1:00 to 2:00  
Wednesday — 1:00 to 3:00  
Thursday — 11:00 to 12:00  
Friday — 11:00 to 12:00

Check the door of room 423 Finley for the Workshop room. Some sources you may use in order to secure the engineering job you desire, within the proper location, and whose products are in your realm of study include:

- the College Placement Annual
- Industrial Research Laboratories of the U.S.  
National Academy of Sciences  
National Research Council (highly recommended)
- Magazines printed by your respective Engineering Associations as "Chemical Engineering Progress," and "Mechanical Engineering."
- Check through the employment wanted columns of the New York Times Financial section.
- See the Tech librarians for further references.

Some final hints which I think are the most important include many items that are often overlooked or thought unnecessary. They are:

1) APPLY TO SMALL COMPANIES SINCE THE BIGGER COMPANIES ARE OVERLOADED WITH APPLICANTS.

2) SATURATE THE MARKET WITH LETTERS AND RESUMES since it is better to have 50 prospects than 5. If possible, do not try to concentrate in one industry (e.g. plastics, auto) but spread yourself around since the one field you choose might not be hiring, while the other industries will.

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## Neither Lounge Nor Book Store . . .

In our last issue we discussed the relative merits of a lounge versus a book store-lounge. Now we hear that instead of using the space for this purpose it will be used to house an impressive computer complex. No one can deny that this is a very important addition to the college. But why must the space for it be had by removing a badly needed lounge? We have been told that the optimum area for the computers is 3,500 square feet; the room in the basement of Shepard Hall has but 2,600 square feet. The room must be centrally located. Is the basement of Shepard Hall central to the School of Technology, the main user of the computers?

Several other good locations for a computer complex have been suggested: Steinman Hall, the materials testing lab, and the Marlies Laboratory and its adjoining offices. All are centrally located with respect to the tech school and all are accessible to the street. But the new tech building is for the engineering departments, the Marlies lab is for the Chemistry department, and the materials testing lab will go to the Graphics department. The obvious solution is to take a room that the students were supposed to get. It isn't big enough, but we'll make it do.

The students always get it in the neck.

We strongly support the Technology Council's call for a student demonstration in Knittle Lounge on March 8. It will demonstrate the horrible inadequacy of Knittle Lounge and at the same time will make the administration more aware that what we really want is something better than a 74 person lounge to serve several thousand students.

We also urge the Student Council to endorse this demonstration.

What the administration can take away the administration can return. There is an area on North Campus that would make an excellent lounge. The tech library will be moved to Steinman Hall, and Great Hall will become an auditorium. We therefore suggest that the Harris Auditorium be made into a student lounge. Since Great Hall will be an auditorium, the Harris Auditorium can be made a lounge with no loss at all. Furthermore, within two or three years we will obtain still another auditorium when Music and Art High School moves to the Lincoln Center. If student needs other than exclusively academic ones are kept in mind and considered, a way can surely be found to fill them.



# Curriculum Changes...

(Continued from Page 1)

week for "dope sheets" that will advise them of how the planned changes actually effect them after already having taken some of the courses to be dropped.

## Architecture Curriculum

**Drop**  
Phys 110 Mechanics for Engineers

**Add**  
Phys 112 Analytical Mechanics  
Art 32.1 Three-dimensional Design

## Net Change

Credits 0  
Class Hours —2  
Design or lab hours +4  
Total hours +2

Note: There is no change proposed in the number of credits required for the various engineering degrees but the instructional hours are reduced. The extent of the reductions depends upon the students' choice of electives.

## Chemical Engineering Curriculum

**Drop**  
ChE 195 Undergraduate Thesis  
EE 102 Electrical Eng'g. I (for ChE's)  
EE 103 Electrical Eng'g. II (for ChE's)  
EE 143 Electrical Eng'g. Lab.  
Gr 108 Engineering Drawing II  
Math 115 Ordinary Differential Equations  
Phys 110 Mechanics for Engineers

**Add**  
To the present five credits of approved electives in Arts, Languages and Social Sciences  
ChE 195 Undergrad Thesis and Seminar

EE 111 Electrical Eng'g. I (for Ch, C, & ME's)  
EE 112 Electrical Eng'g. II (for Ch, C, & ME's)  
Math 91 Mathematics for Engineers I  
Math 92 Mathematics for Engineers II

Phys 112 Analytical Mechanics  
**Net Change**  
Credits 0  
Class hours +2  
Design or lab hours —6  
Total hours —4

## Civil Engineering Curriculum

**Drop**  
Phys 110 Mechanics for Engineers

Math 115 Ordinary Differential Equations  
Gr 109 Civil Engineering Drawing

EE 102 Electrical Engineering I  
EE 103 Electrical Engineering II  
EE 143 Electrical Engineering Lab.

ME 140 Engineering Thermodynamics  
ME 150 Mechanical Power Equipment  
ME 155 Mechanical Engineering Lab.

CE 101 Elementary Surveying  
CE 215 Reinforced Concrete  
CE 236 Water Supply and Treatment  
CE 237 Sewerage and Sewage Treatment  
CE 242 Structural Design

**Add**  
Phys 112 Analytical Mechanics  
Math 91 Mathematics for Engineers I  
Math 92 Mathematics for Engineers II

EE 111 Electrical Engineering I (for Ch, C, & ME's)  
EE 112 Electrical Engineering II (for Ch, C, & ME's)

ME 101 Thermodynamics I  
ME 111 Thermodynamics II  
CE 105 Surveying I  
CE 216 Reinforced Concrete  
CE 238 Sanitary Engineering I

CE 239 Sanitary Engineering II  
CE 243 Structural Design  
Approved Electives in the Arts, Languages and Social Sciences

## Net Change

Credits 0  
Class hours +3  
Design or Lab hours —9  
Total hours —6

## Electrical Engineering Curriculum

## Drop

CE 112 Materials of Engineering  
\*(CE 212) Structural Planning and Design

EE 138 Engineering Electronics Lab. IV  
Gr 8 Descriptive Geometry  
Gr 108 Engineering Drawing II

Math 115 Ordinary Differential Equations  
ME 120 Applied Kinematics (for EE's)

ME 130 Production (for EE's)  
ME 140 Engineering Thermodynamics (for C, EE's)

ME 150 Mechanical Power Equipment (for Ch, C, & EE's)  
ME 155 Mechanical Engineering Lab. (for C, EE's)

Phys 110 Mechanics for Engineers  
\*CE 212 may, with departmental approval, be substituted for Physics 120 or for 3 credits of Electrical Engineering courses.

**Add**  
Approved Electives in Arts, Languages and Social Sciences.  
CE 114 Materials of Engineering Lab.

Math 91 Mathematics for Engineers I  
Math 92 Mathematics for Engineers II

Math 93 Mathematics for Engineers III  
ME 101 Thermodynamics I

ME 111 Thermodynamics II  
Phys 112 Analytical Mechanics  
Phys 119 Atomic Properties of Matter

Phys 120 Electric and Magnetic Properties of Materials  
**Net Change**

Credits 0  
Class hours +7  
Design or lab hours —20  
Total hours —13

## Mechanical Engineering Curriculum

**Drop**  
Math 115 Ordinary Differential Equations

Phys 110 Mechanics for Engineers  
Gr 108 Engineering Drawing II

CE 112 Materials of Engineering  
CE 212 Structural Planning and Design

EE 102 Electrical Engineering I (for Ch, C, & ME's)  
EE 109 Electrical Engineering II (for ME's)

EE 143 Electrical Engineering Lab. (for Ch, C, & ME's)  
EE 178 Electrical Engineering III (for ME's)

EE 179 Electrical Engineering Lab. II (for ME's)  
ME 124 Mechanics of Machines I

ME 134 Mechanics of Machines II  
ME 160 Engineering Thermodynamics I

ME 165 Thermodynamics and Instrumentation Lab.  
ME 170 Engineering Thermodynamics II

ME 180 Engineering Thermodynamics III  
ME 206 Engineering Economy

ME 208 Metallurgy  
ME 218 Production I  
ME 224 Machine Design I

ME 228 Production II  
ME 234 Machine Design II  
ME 247 Mechanical Engineering Lab. II

ME 260 Heat Power I  
ME 265 Heat Power Lab. I

(Continued on Page 6)

## INTERESTED IN G.E.? E.E. and M.E. June and August 1962 graduates:

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- **Planning Engineer**—Programming plant growth to meet communication requirements five years ahead.

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## ME Labs...

(Continued from Page 5)

ME 270 Heat Power II  
ME 275 Heat Power Lab. II  
ME 280 Heat Power III  
Add  
Approved Electives in the Arts, Languages & Social Sciences  
Math 91 Mathematics for Engineers I  
Math 92 Mathematics for Engineers II  
Phys 112 Analytical Mechanics  
CE 114 Materials of Engineering Lab.  
EE 111 Electrical Engineering I (for Ch, C, & ME's)  
EE 112 Electrical Engineering II (for Ch, C, & ME's)  
ME 101 Thermodynamics I  
ME 102 Fluid Dynamics I  
ME 103 Metallurgy I  
ME 104 Kinematics of Machines  
ME 108 Manufacturing Processes  
ME 110 Theory of Experimentation  
ME 111 Thermodynamics II  
ME 113 Metallurgy II  
ME 114 Dynamics of Machines  
ME 121 Heat Transfer  
ME 144 Machine Stress Analysis  
ME 190 Systems Analysis  
Technical Electives from among:  
CE 212 Structural Analysis and Design  
EE 178 Principles of Feedback Control Systems  
ME 200 Numerical Solution of Engineering Problems  
ME 202 Fluid Dynamics II  
ME 204 Machine Design  
ME 205 Energy Conversion  
ME 207 Project and Report  
ME 216 Engineering Decision Theory  
ME 248 Production Engineering  
**Net Change** (Depending on amount of technical electives)  
Credits 0  
Class hours +1 or +4  
Design or Lab hours -2 or -11  
Total hours -1 or -7

### New courses —

#### Civil Engineering

CE 105. Surveying I. Theory of errors and its application to horizontal and vertical control. Use and adjustment of instruments.

The field work in this course consists of a set of problems illustrative of the topics studied in the class room.

2 class hrs., 3 field hrs. wk., 3 cr. Prereq.: Trigonometry, Lab. Fee \$3.00

CE 216. Reinforced Concrete. The principles of reinforced concrete as applied in the main to building construction. Proportioning of concrete mixtures by the water-cement ration theory. Rectangular beams, T-beams, doubly reinforced rectangular beams, continuous beams. Slabs reinforced one-way, rectangular slabs. Hooped, spiral, composite, and combination columns, bending and direct stress in columns. Flat-slab construction.

2 class hrs. 3 design hrs. wk., 3 cr. Prereq.: CE 232

CE 238. Sanitary Engineering I. Hydrology: the hydrologic cycle, rainfall, runoff, data analysis and processing. Ground water. Wells. Reservoirs. Estimating water needs and quantity of liquid wastes. Collection, transport and distribution. Analysis of closed conduit and open channel systems. Pumping. Occasional field trips are required.

2 class hrs. 3 design hrs. wk., 3 cr. Prereq.: CE 120, 218.

CE 239. Sanitary Engineering II. Composition of water and sewage; interpretation and significance of laboratory analysis. Water pollution control criteria; deoxygenation and reoxygenation. Physical, chemical and

(Continued on Page 7)

## Editorial:

# Should Auld...

The following statement, by Dr. Harry Rivlin on his acceptance of the post of City College President, we feel summarizes the current situation aptly.

Statement by Dean Harry N. Rivlin on May 16, 1961

As one who has long been a member of The City University faculty, I feel obligated to accept the invitation of the Board of Higher Education to serve as acting president of The City College until the new president is selected. I have accepted on condition that my name not be included among those considered for the post.

My reason for setting this condition is that these are critical days for those engaged in teacher education. Unless we get for our schools teachers of the quality we need and in the numbers we need, our educational system simply cannot meet its ever increasing responsibilities. For us at the Division of Teacher Education of The City University, this is an exceptionally crucial period. The opportunity to grant the doctorate brings with it the challenge to develop doctoral programs as outstanding as are the undergraduate and graduate teacher education programs we now conduct. It is understandable, therefore, that I should be reluctant to leave, even temporarily, the responsibilities and the opportunities that are mine as the dean of Teacher Education of The City University of New York.

I am torn between two loyalties — my responsibilities for the education of teachers and my gratitude to City College. As a graduate of the college, I am indebted to it for the education that would otherwise have been unavailable to me. I hope to repay part of this debt by helping out while

the board finds the new president — which I hope will be within a year.

With the cooperation of the faculty and students at the college and with the support of the Board of Higher Education, I hope to carry on the traditions of The City College until the new president is found. Then I shall return to teacher education, the field to which I have dedicated my professional life.

Dr. Rivlin has done an excellent job of carrying on the traditions of The City College and has repayed a great part of the debt he feels he owes us. We wish Dr. Rivlin the best of luck as he returns to the field to which he has dedicated his professional life.

## Tech Life...

(Continued from Page 4)

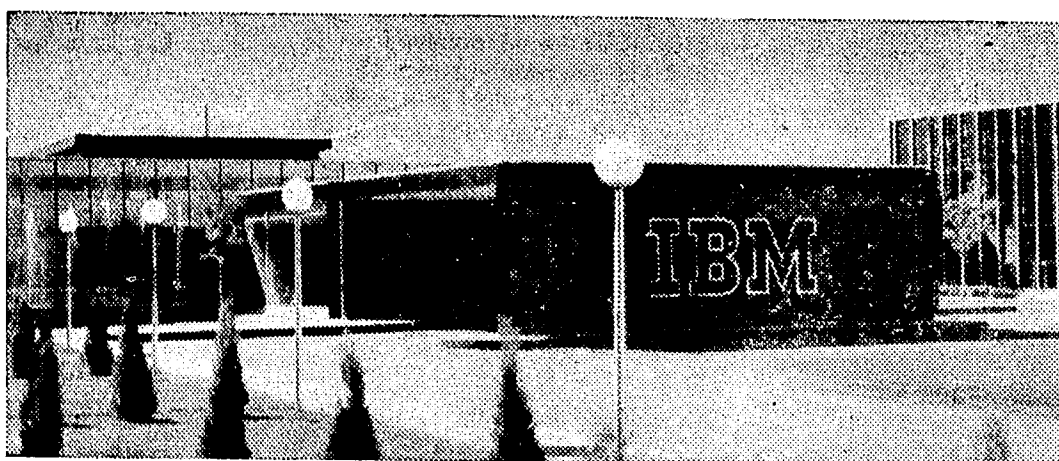
3) Write a resume that does you credit. **THIS IS NO PLACE FOR EXPERIMENTATION**, so be conservative and follow the format for resumes that may be found in any book on applying for a job.

4) If possible, have the resume mimeographed to alleviate the burden of typing fifty or more copies. The cost of such a process, though in the range of three to five dollars, is worth the time and labor otherwise involved. **MAKE SURE THE RESUME IS PERFECT BEFORE YOU HAVE IT PRINTED.**

5) Finally, don't give up. **DON'T GIVE UP.** Most of the upper termers who have gotten jobs will tell you they didn't get an acceptance till May, June and even early July.

\* Mr. Richard Nagel, an energetic and magnetic director of this term's play "Guys and Dolls" (to be presented March 2, 3, and 4 at Taft High School in the Bronx) may be your summer saviour since he not only directs plays, but also directs the summer employment center at the College. Mr. Nagel has another career which he also is utilizing the College for — a Master's Degree. You might remember the colorful and successful show, "Where's Charley" which was presented last year. Well, you guessed it. Mr. Nagel directed that also.

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### New Courses

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# Curriculum Changes

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biological unit treatment processes; screening, sedimentation, flotation, filtration, aeration, coagulation, ion exchange, corrosion control, trickling filters, activated sludge, sludge digestion, disinfection. Planning and design of treatment facilities. Occasional field trips are required.

2 class hrs. 3 design and laboratory hrs. wk., 2 cr. Prereq.: Chem. 2 and CE 238.

SE 243. Structural Design. Analysis and design of beams, girders, tension and compression members, and other component parts of structural frames.

2 class hrs. 3 design hrs. wk., 3 cr. Prereq.: CE 232.

## New Courses

### Electrical Engineering

EE 111. Electrical Engineering I (For Chemical, Civil and Mechanical Engineers). Basic concepts of electrical science. Circuit elements, waveforms, phasors and Fourier series concepts. Natural response of simple circuits. The sinusoidal steady state, frequency response, three phase circuits and linear network analysis. Nonlinear resistive circuits.

3 class hrs. wk., 3 cr. Prereq.: Physics 8. Prereq. or coreq.: Math. 91.

EE 112. Electrical Engineering II (For Chemical, Civil and Mechanical Engineers). Introduction to principles of electronics. Vacuum tubes, gas tubes and semiconductors. Introduction to electronic circuits. Electronic measurements, oscilloscope and analogue computer. Introduction to electro-mechanical energy conversion.

2 class hrs. 3 lab. hrs. wk., 3 cr. Prereq.: EE 111.

## New Courses

### Mechanical Engineering

ME 102. Fluid Dynamics I. Basic theory of one-dimensional, steady state, compressible flow; analysis of simple flows such as isentropic, adiabatic, Fanno lines. Rayleigh lines. Applications to nozzles, diffusers, duct flow, jet propulsion, rocket engine. Laboratory experimentation and demonstration integrated with class room work.

2 class hrs., 3 lab. hrs. wk., 3 cr. Prereq.: CE 120, Math. 91 (or Math. 115), ME 110 (or ME 165).

ME 103. Metallurgy I. The properties of metals and alloys in relation to their structure; microscopy; crystal structure; transformation from melt and solid states; phase analysis; plasticity of metals, dislocations; hot working of metals; cold working, recovery, recrystallization and residual stresses; mechanism of diffusion.

3 class hrs. wk., 3 cr. Prereq.: Phys. 114, Prereq. or coreq.: CE 114 (or CE 112).

ME 108. Manufacturing Processes. Study of basic forming processes such as casting, forging, machining, grinding, cold press work, and joining, with emphasis on process capabilities and limitations as related to design and cost; operation analysis. Laboratory for individual machining projects, group demonstrations, and films, integrated with class room work.

3 class hrs., 3 lab. hrs. wk., 4 cr. Prereq.: Gr. 7, Lab. Fee: \$12.00 (covers all ME labs).

ME 110. Theory of Experimentation. Theories and applications of engineering experimentation; characteristics and selection of instrumentation; prediction of errors; non-dimen-

sionalization; dimensional analysis; planning experiments; randomization; factorial designs; replication; data error location; statistical, graphical, and mathematical data analysis. Laboratory for actual applications on engineering instruments and practice in the design of experiments integrated with class room work.

2 class hrs., 3 lab. hrs. wk., 3 cr. Prereq.: ME 100.

ME 111. Thermodynamics II. Thermodynamic systems: fluid, heat and mass transfer, work removal and addition, refrigeration, low temperature, stress, electrical, thermoelectrical; gas mixtures; chemical and nuclear reactions. Laboratory for demonstration and experimentation integrated with class room work.

2 class hrs., 3 lab. hrs. wk., 3 cr. Prereq.: ME 101 (or ME 140 or ME 160).

ME 113. Metallurgy II. Changes in properties by heat treatments such as age and order hardening, diffusion reaction hardening; non-equilibrium transformations; alloys of steel; hardenability; cast iron. Laboratory experimentation on basic principles of structures, hardening, cold working, hardenability, and residual stress integrated with class room work.

1 class hrs., 3 lab. hrs. wk., 2 cr. Prereq.: ME 103, ME 110.

ME 121. Heat Transfer. Steady state and transient heat conduction; solid body and gaseous radiation; heat generation; laminar and turbulent heat convection; analytical and numerical techniques; applications to engineering design. Laboratory integrated with class room work.

3 class hrs., 3 lab. hrs. wk., 4 cr. Prereq.: ME 110, ME 111, Math. 91 (or Math. 115).

ME 190. Systems Analysis. Analysis of linear systems which give rise to first and second order differential equations; response to constant, ramp, periodic, step, and exponential inputs; applications to mechanical, thermal, hydraulic, and electrical models; introduction to analog computer as a tool for solution of dynamic problems.

3 class hrs. wk., 3 cr. Prereq.: Math. 92 (or Math. 115), ME 102 (or ME 180), ME 121 (or ME 170), ME 114 (or ME 134).

ME 200. Numerical Solution of Engineering Problems. Solutions of higher order algebraic equations; difference methods; numerical integration; numerical solution of differential equations; computation methods employing desk and digital computers. Laboratory and computation periods integrated with class room work.

1 class hr., 3 lab. hrs. wk., 2 cr. Prereq. or coreq.: ME 190.

ME 202. Fluid Dynamics II. Flow of fluids external to bodies; potential flow and elementary boundary layer theory; lift and drag at subsonic and supersonic speeds; infinite and finite airfoils; oblique shock waves; expansion waves; experimental demonstrations; applications to heat transfer, aerodynamics, and turbine, compressor, and structural design.

3 class hrs. wk., 3 cr. Prereq.: ME 102 (or ME 180).

ME 205. Energy Conversion. Application of thermodynamics, heat transfer, and fluid dynamics to methods and equipment employed in converting atomic, solar, water, and fuel energies

into mechanical and other forms of energy. Laboratory for experimentation and demonstration integrated with class room work.

3 class hrs., 3 lab. hrs., 4 cr. Prereq.: ME 102 (or ME 180) ME 121, or ME 170).

ME 216. Engineering Decision Theory. Fundamentals of decision theory with emphasis on economics of alternates; interest, annuities; and amortization in engineering problems; replacement theory; incremental costs; introduction of mathematical and simulation models including linear programming for production problems; special management problems such as economics of inventory control, economic lot size, plant location, labor, and wages.

3 class hrs. wk., 3 cr. Prereq.: ME 108 (or ME 228).

ME 248. Production Engineering. Advanced problems of production engineering; mass production, advanced operation analysis and tolerance balancing; numerical control and programming; machinability; quality control, process capability studies, plant layout, motion and time study as management control tools. Laboratory for group projects, demonstrations, and films integrated with class room work.

2 class hrs., 3 lab. hrs. wk., 3 cr. Prereq.: ME 108 (or ME 228).

## New Courses

### Mathematics

Math 91. Mathematics for Engineers I. Algebra of vectors and matrices. Ordinary differential equations. Solution of differential equations by infinite series; Legendre polynomials. Bessel functions. Functions of several variables.

3 class hrs. wk., 3 cr. Prereq.: Math. 3, 8, or 73.

Math. 92. Mathematics for Engineers II. Fourier series. Vector calculus. Partial differential equations. Operational methods; Laplace transform.

3 class hrs. wk., 3 cr. Prereq.: Math 91.

Math. 93. Mathematics for Engineers III. Probability. Numerical analysis. Variational analysis. Theory of the functions of a complex variable.

3 class hrs. wk., 3 cr. Prereq.: Math. 92.

## New Courses

### Physics

Phys. 112. Analytical Mechanics. Equilibrium of a particle and of a rigid body. Kinematics of a particle. Dynamics of a particle. Work-energy principle. Impulse-momentum principle. Simple harmonic motion. Moments of inertia, angular velocity and angular acceleration. Dynamics of a rigid body.

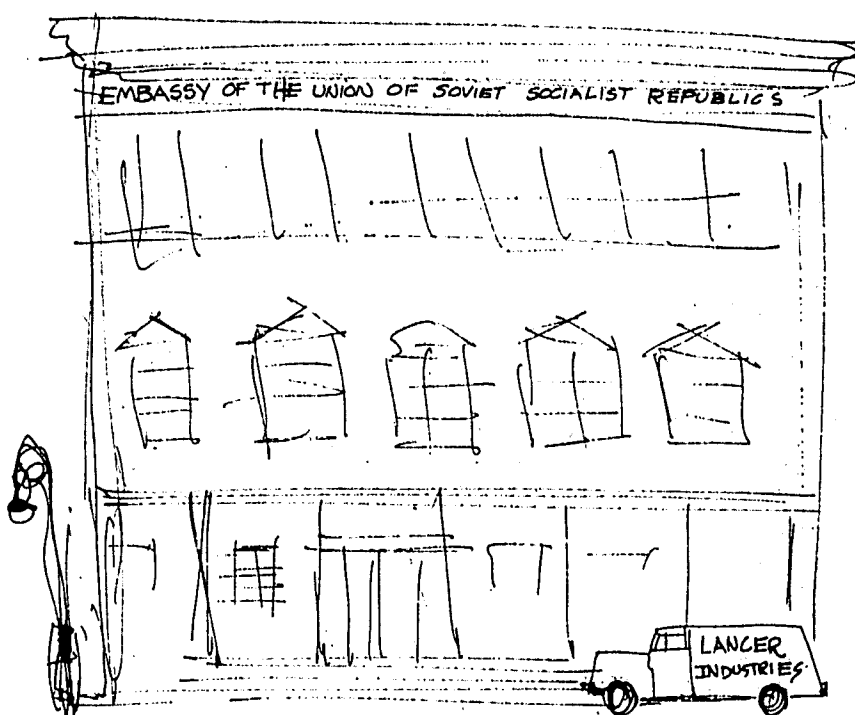
3 class hrs., 3 cr. Prereqs.: Physics 8; Math. 3, 8, or 73.

Phys. 119. Atomic Properties of Matter. Introduction to atomic structure. Elements of quantum theory. Wave-particle concepts. Schrodinger equation. Applications to hydrogen atom and periodic system. Elements of statistical mechanics.

3 class hrs. wk., 3 cr. Prereq.: Physics 111, Pre or Coreq.: Math. 92.

Phys. 120. Electric and Magnetic Properties of Materials. Motion of charged particles in crystals. Application of energy level diagrams and Fermi-Dirac statistics to study of metals, semiconductors and insulators. Semiconductor junctions. Dielectric and magnetic properties of matter.

3 class hrs. wk., 3 cr. Prereq.: Physics 119.



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## Slants on Sports

by Marv Chasen

For the past three and one half years I have diligently read the sports articles presented by the two major publications of City College, but it wasn't until this past term that I became really annoyed with what I had read.

The men who compete on the various teams that represent our school are not here to be mocked at. They are not exhalted heroes who enjoy such extra privileges as early registration or the likes of such. They are ordinary students who are supplementing their academic education by participating in various sports. Very few of these men become champions in the direct sense of the word, but those who do, reflect this achievement upon their entire team, their coach, and the entire school, which brings me to the importance of morale.

Any coach will tell you that the morale of his team is very important to its success as a team. It's nice to have a winning season but losing is endurable if the team knows that it has tried its best.

Since one of the functions of a school newspaper is to convey to the student body the results of athletic events, it becomes their duty to present an accurate account of what occurred without destroying the morale of the team it is writing about in the eyes of the student body. I honestly believe that this is just what is not being done by one of the two major day school newspapers at the college.

I am in close contact with a good number of the athletes of our school and I am a member of a varsity squad myself so I speak for a good many of them. We are not sensitive individuals who are hurt by what we read but we don't like to get the impression that we are being laughed at. I am sure that the swimming team didn't enjoy reading that their pool is a "bath-tub" and that they finally got a chance to lose in an olympic swimming pool. The coach of the wrestling team, Professor Sapora, was very surprised to read that all his team could defeat is "Metropolitan area pushovers." He couldn't understand why our own newspapers give the teams worse write-ups than the papers from the schools we compete with. He further related to me that in his opinion the majority of the athletes do not compete for the college, but for the coach which is quite an opinion. Is the press responsible for such an opinion?

In a school where athletics is not emphasized nearly as much as it should be, what little school spirit there is should not be stifled by the press. I can guarantee that very few people will come to see a meet after the press has given the impression that the opponents are "pushovers" or that the chances of winning are practically impossible. I myself have not yet learned the true definition of

pushover, but I have seen plenty of so-called pushovers trounce the favorite team.

What can be done to remedy the situation? One solution is to have all sports writers compete on a team or have only athletes write up the articles; this is prejudicial although it is a good idea. Perhaps if the writers were to analyze write-ups as presented in the publications of other schools, as I have done, this would aid the situation.

In conclusion I hope that my message gets across to the particular publication that I had in mind when I wrote this article, and that in the future the articles presented should contain only the facts.

## Physics Dept. Gets N.A.S.A. Grant

On Sunday, January 14, 1962, Dr. Harry N. Rivlin, acting President of the City College, announced the receipt of a research grant of \$22,380 from the National Aeronautics and Space Administration. City College, along with four others in this area, have received grants. Our college was chosen both by its own reputation of scholarship, and that of the faculty members who will be working on the project. The grant is for a one year period, and may be renewed at the option of the N.A.S.A.

Professor Henry Semat (Chairman, Physics Department) will head a task force of three City College professors. Professors Howard Greenberg, Arthur Bierman, and Adolph

A. Abramson will be working on theoretical research problems. Assisting them in their calculations, will be a hand picked group of honor students from the college. The professors will conduct theoretical investigations into particle orbits and radiation modification in gravitational fields, and high density plasma oscillations.

The money will be used for the purposes of supplying released time so that Professors Greenberg, Bierman, and Abramson can concentrate on the above mentioned project which is of interest both to them, and N.A.S.A.

Part of the funds allocated will also be used to create Assistantships in Physics for graduate students. This year, two assistantships have been filled. Each assistant is paid \$2,000 per

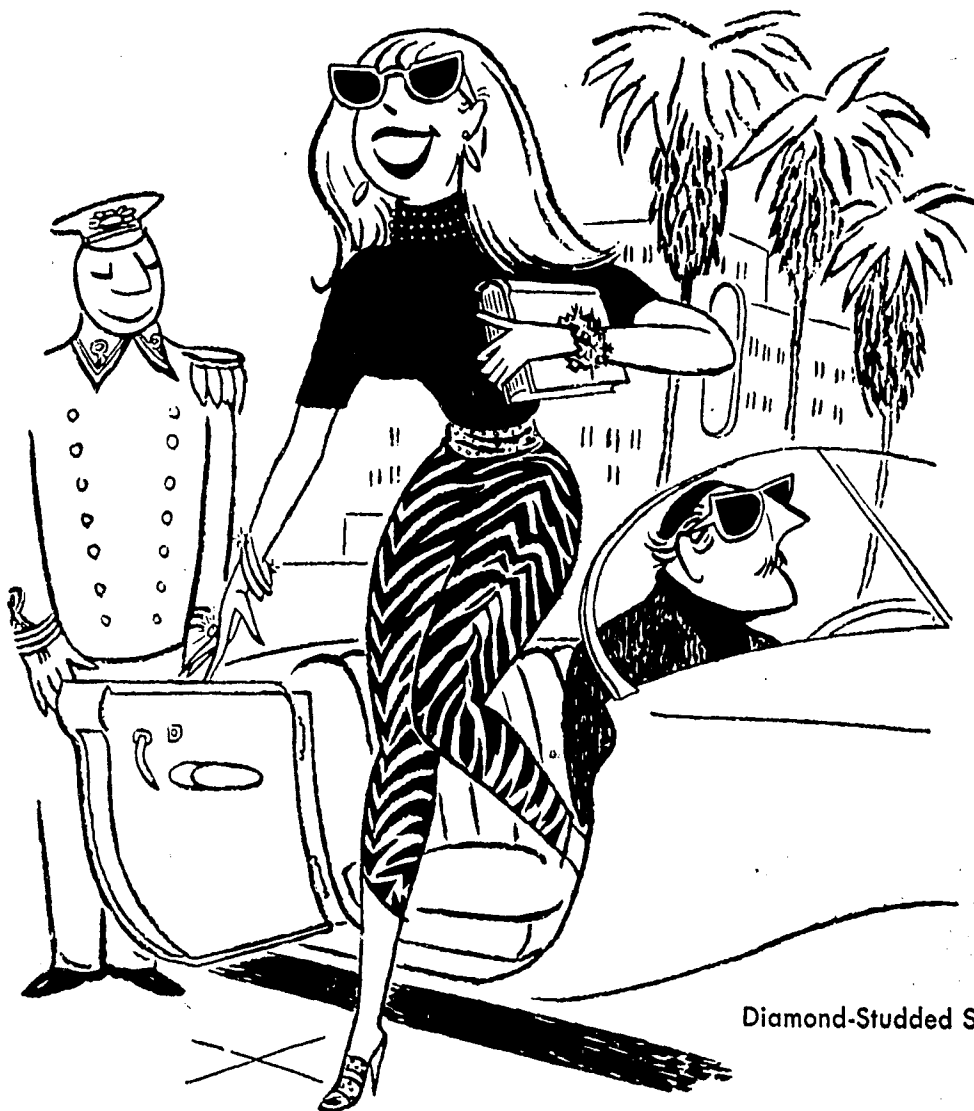
year, plus the cost of tuition. He also spend part of his time doing research at the Institute for Space Studies.

Professor Semat pointed out the benefits this project will have for the college. First, it will "Create an atmosphere of research activity right on campus." Naturally, the work being done will also enhance the prestige of the college. "At the same time, the assistantships awarded will undoubtedly bolster the college's M.A. program." Professor Semat also noted that while working on their research project, Professor Abramson, Bierman, and Greenberg would be available to the college." Lastly, the experience gained by the honor students while helping with the project, will be invaluable.

—Kauffman

## Girl Watcher's Guide

Presented by Pall Mall Famous Cigarettes



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### LESSON 8 - Becoming a specialist

Experienced girl watchers, for whom routine watching has lost some of its excitement, often become specialists. (This is definitely not recommended for beginners. However, it may be practiced as a change-of-pace by more advanced students.) They may spend an entire field trip concentrating on one part of a girl. This tends to step up

activity, since it does not require that the whole girl be beautiful. For example, if you decide to specialize in knees, you watch only beautiful knees. (The doorman above appears to be an ankle specialist.) Whatever your watching specialty, make sure your smoking specialty is Pall Mall's natural mildness—it's so good to your taste.

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