OUTSTANDING STUDENTS TO RECEIVE AWARDS
Society Members Invited to Participate in Annual Senior Dinner and Awards Night

On May 7, the Society of Tulane Engineers will honor the 1964 graduating class at a buffet supper in the University Center. In addition to informing the graduates of the aims and purposes of the STE, the occasion will be utilized for the presentation of awards to members of the class.

Guest speaker will be Dr. Robert T. Nieset, vice-president for research and development, Kalvar Corporation. Dr. Nieset’s talk is entitled “Information for Engineers.”

The following awards will be presented by Dean Lee H. Johnson to students selected by the faculty: The Leon H. Scherck Memorial Award for the highest scholastic average in the School of Engineering; The James M. Robert leadership award; The Hamilton Watch Company award for interest in the humanities and the social sciences; The American Institute of Chemical Engineers, New Orleans section, award to the senior with the highest scholastic average in chemical engineering; The American Society (Louisiana section) award for excellence in chemical engineering; The Institute of Electrical and Electronic Engineers award; The Frederic H. Fox Activities Award; The American Institute of Chemical Engineers, National Society, award for outstanding scholarship in chemical engineering studies; The American Society of Civil Engineers (Louisiana section) award for outstanding scholarship in civil engineering studies; The William Benjamin Gregory medal, Class of 1918, award for outstanding scholarship in mechanical engineering; The Machinery's (Continued on Page 4)
THE TULANE ENGINEER

THE TULANE ENGINEER
Published by the Society of Tulane Engineers, whose officers are:
President..................John V. Vogt
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APRIL 1964

SOCIETY OF TULANE ENGINEERS
FINANCIAL STATEMENT
November 15, 1962, through April 1, 1964

REGULAR OPERATING FUNDS

Receipts —
Cash on Hand Nov. 15, 1962 ......................... $ 135.52
1961-62 Dues Collected ............................. 102.50
1962-63 Dues Collected ............................. 1,313.50
1963-64 Dues Collected ............................. 102.67
Collected for Directory ............................. 2.00
Collected at Senior Award Banquet .................. 114.00
Interest on Savings Account ........................ 26.44

Total Receipts ........................................ $1,796.63

Disbursements —
Addressograph Service .............................. $ 19.00
American Printing Company ......................... 386.98
Bank Charges ......................................... 4.02
Cheque Returned by Bank — Irregular Signature .... 3.00
Engineers' Club of New Orleans .................. 12.00
Postage .............................................. 1.75
School of Engineering Gift ........................ 500.00
The Tulane Alumni Association ................... 279.59
Tulane University — Senior Award Banquet .......... 321.88

Total Disbursements ................................. $1,528.22

Net Cash on Hand April 1, 1964 ...................... $ 268.41

JAMES H. ROBERT LEADERSHIP
AWARD FUND —

Balance on Hand April 1, 1964 ...................... $1,286.97

April, 1964

D. L. MORRIS, Treasurer

THE SOCIETY OF TULANE ENGINEERS

Dues $3.00 per year

The aims and purposes of this organization are as follows:
1. To keep members of this organization informed of the progress, activities and needs of the School of Engineering.
2. To provide closer contact between former students and faculty by providing information about their whereabouts and activities.
3. To provide employment placement service for prospective graduates and members.
4. To provide a means of raising funds for specific equipment and services.
5. To provide an advisory group whose purpose it is to recommend improvements in curriculum, instruction and classroom procedures.

PROFESSOR TAYLOR HONORED

Dr. Frances McBryde Taylor, Professor of Chemical Engineering, was honored at a reception in December held by Dean and Mrs. Johnson. Dr. Taylor completed twenty-five years on the faculty of the School of Engineering in 1963 and received the gift of a portable television set from his colleagues and friends on the faculty and staff.

Professor Taylor was recognized at the reception for his many contributions to the education of scores of Tulane engineering students. He is directing Tulane's unique practice school in chemical engineering at the Shell Oil Company Refinery at Norco, Louisiana, for seniors in their second semester.

THE TULANE ENGINEER FROM SUAQUE TO SUBLIME
by
John F. Vogt, Jr.

This is perhaps somewhat flowery phraseology, yet it is quite applicable to the power of our Society.

One of the primary aims of the Society of Tulane Engineers is to provide the means for raising funds for specific needs of the School of Engineering.

For the past few years this aim has been fulfilled by contribution to the School of the excess of dues collected after payment of our operating expenses.

The average dues-paying members of the STE are leveled at about 500, of a possible 3,000 Engineering School alumni. This uniform low percentage of active members has seriously hampered your Society in effectively accomplishing its aims and purposes. Should we permit our energies to continue this course, we, of course, must accept the guilt of indifference and complacency.

Certainly every graduate of the Engineering School can look back and feel justifiably proud of the School's high standards and of the marked advantages inculcated in a Tulane education. Surely we were all trained to recognize mediocrity as no measure of prestige and respect. If each of us would but pay the nominal $3 dues each year, our power to fulfill the aims of the STE, of rendering a finer service to the School, and accomplishing many projects of outstanding worth will be put to its full use. Let's complete the development of our professional attitude!
NEW ENGINEERING CURRICULUM

A new curriculum, designated simply as the Engineering curriculum, was inaugurated in September, 1963, in the School. It is sufficiently flexible to enable students to prepare for a multitude of career opportunities and also to accommodate changes that occur constantly in engineering education and practice.

It is also sufficiently basic and broad to produce engineers with requisite education in science, engineering, and liberal studies. There are two major parts:

1) The Core Curriculum
   This consists of mathematics, science, engineering sciences, engineering design and analysis and constitute 55% of the total semester hours.

2) The Special Interest Program
   An individual pattern of courses for each student, including at least 24 semester hours in the humanities and social sciences. This constitutes 45% of the total semester hours. Let us examine each of these parts in more detail. The Core Curriculum consists of 78 semester hours as follows:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Mathematics</th>
<th>Science</th>
<th>Engineering Sciences</th>
<th>Engineering Design and Analysis</th>
<th>Engineering Graphics and Laboratory</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>16</td>
<td>14</td>
<td>27</td>
<td>16</td>
<td>5</td>
<td>78</td>
</tr>
</tbody>
</table>

The courses in engineering science include the mechanics of solids, mechanics of fluids, thermodynamics, engineering materials, electrical and magnetics circuits, and electronics.

The engineering design and analysis group is a four-year sequence of courses, one each semester. These are courses requiring individual creative thinking in designing new products, machines, devices, or processes. These are courses in engineering as contrasted with science. These courses represent the latest thinking in engineering education, the crowning of a strong base in mathematics and science with a new kind of engineering course.

Real engineering involves dollars and cents, judgment, imagination, and ingenuity as well as mathematics and science. These design courses are to engineering what creative writing and critical analysis are to English. They are interdepartmental and represent the best thinking of a cross section of the engineering faculty.

The engineer's major problems are seldom 100% mathematical. Most of them have more than one answer. An engineer does not necessarily succeed by building an automobile engine which runs smoothly and efficiently. He fails if the mechanic in the garage down the street has to tear the motor apart to change the spark plugs. If he designs a bridge, he fails if it is too low to allow ships to pass, or if the bridge approaches are too steep and dangerous for automobiles in wet weather.

The design sequence requires the student to perform as an engineer.

The Special Interest Program consists of 64 semester hours, of which 24 must be elective courses in the humanities and social sciences. The remaining 40 semester hours are used for unrestricted elected courses. The pattern of these courses will differ from student to student and will cross departmental and divisional boundaries. A student has in effect the course offerings of the entire University from which to make up his special interest program.

In this respect, the new ENGINEERING CURRICULUM provides greater flexibility than is found even in colleges of liberal arts. In summary, the ENGINEERING CURRICULUM provides greater flexibility than is found even in colleges of liberal arts. In summary, the ENGINEERING CURRICULUM consists of the

<table>
<thead>
<tr>
<th>Semester</th>
<th>Core Curriculum</th>
<th>Special Interest Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>78</td>
<td>64</td>
<td>142</td>
</tr>
</tbody>
</table>

May a student select his unrestricted electives at random? The answer is No! Students will be counseled and guided by individual faculty counselors.

There will also be set up a program committee for each particular field of interest with committee members chosen from engineering faculty, other faculties such as Arts and Sciences, Medicine, Business Administration, from engineers and scientists in industry, and from industrialists.

To see how this is working, let us look at the special interest programs selected by engineering students at Tulane in the fall of 1963.

Those students of the Class of 1967 who have elected the engineering curriculum have selected the following areas of special interest:

Aerospace Engineering
Engineering Science
Biomedical Engineering
Energy Sources
Management

A program committee has been appointed for each of these areas. For example, the biomedical engineering committee includes professors of surgery and physiology, as well as an IBM since computers have become very important in this area.

The management committee includes professors from the School of Business Administration in the fields of operations research, production, and management science.

The program in energy sources is a typical example of the opportunity available in this new engineering curriculum. There was one student who declared his interest in nuclear engineering. Discussion with faculty members revealed that he was really interested in a broader study of the many sources of energy. Consequently, his program committee, working with engineering consultants from industry, is developing a unique pattern of courses for him.

To summarize:

Engineering is the artful and economic use of scientific knowledge to build things . . . A CREATIVE PROCESS.

The new curriculum in Tulane's School of Engineering gives free rein and vigorous motivation to students with ideas for careers in engineering.

In a sense, it is a creative curriculum for a creative profession.

From The Mail Bag

George F. Eustis, M&E '28, is now manager of ESSO West Indies, Ltd.
Robert L. Jacks, CE '44, has recently become manager of engineering for the Armour Agricultural Chemical Company in Atlanta, Georgia.
DR. ROSEN HONORED BY AWARD

Dr. Harold Alvin Rosen, BSE, ’47, in Electrical Engineering, has received the Astronautics Engineer Award for 1964 from the National Space Club, along with his colleague, Dr. Donald D. Williams, of Hughes Aircraft Company. The award is for their contribution to the conception and development of the SYNCOM communications satellite program. The Hughes SYNCOM II was the world’s first synchronous-orbit communication satellite launched into orbit on July 26, 1963. Dr. Rosen conceived the basic idea of the spin-stabilized synchronous communications satellite.

He received this award at the Seventh Annual Goddard Memorial Dinner on March 20, 1964, in Washington, D.C. The award also provides an education grant in the amount of $1500 to a university designated by the recipient. Dr. Rosen has designated Tulane to receive this grant. It will be used to purchase equipment for instruction and research in aerospace engineering. Dr. Rosen attended the California Institute of Technology after leaving Tulane and has been awarded M.S. and Ph.D. degrees there.

Weiderecht . . .
(Continued from Page 1)

...recently working on the advanced development and design of nuclear reactor cores for naval application.

His publications in the Journal of the American Society of Mechanical Engineers include “The Non-Isothermal Friction Factor in the Turbulent Flow of Liquids” and “Mass Transfer Cooling in Laminar Channel Flow.”

He received the Master of Science in Mechanical Engineering degree from the University of Pittsburgh in 1959 and the Ph.D. in Mechanical Engineering from that institution in 1961. He was elected to Tau Beta Pi in his junior year at Tulane and stood first in his mechanical engineering class. He has recently been elected a member of the society of Sigma Xi and is currently a part-time faculty member at the Carnegie Institute of Technology.

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Last First Middle Initial
Branch of Engineering……………………………Year
Home Address………………………………………Home Tel.
City ____________________________________________
Business Address……………………………………Bus. Tel.
I am employed by: _____________________________ Firm Name

News about job (type of work):

News about other grads:

Awards . . .
(Continued from Page 1)

Achivement award for excellence in machine design and the Industrial Press Achievement award for excellence in air conditioning, heating and ventilating.

The sponsoring of a luncheon for the seniors by the STE has become an annual event. The purpose of this meeting is to stimulate an early interest in alumni affairs.

All society members are urged to attend this buffet supper, which is scheduled to begin at 6 P.M. in the Kendal-Kram Room at the University Center.

ORTH RECEIVES FELLOWSHIP

Assistant Professor Louis P. Orth has received a fifteen-month faculty science fellowship for advanced study in mechanical engineering from the National Science Foundation. He plans to pursue graduate study in the field of aeronautical engineering leading to the doctor of philosophy degree at Ohio State University during the period 1964-66.

Professor Orth has been primarily responsible for the mechanical engineering laboratories at Tulane and designed and built the first supersonic wind tunnel in the laboratories. He has also had the responsibility for the installation of a high-speed gas turbine and a small rocket engine. Most recently he has been participating in the design of some new fluid mechanics experimental equipment.

SOCIETY OF TULANE ENGINEERS
TULANE UNIVERSITY ALUMNI HOUSE
3319 WILLOW ST.
NEW ORLEANS 18, LA.

Mr. John E. Coles
1600 So.Peters St.
New Orleans, La. 70130