Dr. Franz Brotzen, Rice Dean of Engineering, told an Autry House audience last Wednesday night that the real task of a university is to help its students synthesize knowledge in an age primarily geared to specialization.

Continuing the Autry series on “The University and Its Work,” Dean Brotzen characterized the Rice engineer as an integral, active member of the student body and called for the faculty to keep pace with the increasing sophistication of the students by offering more stimulating courses.

The attitude of the liberal arts and of engineering toward each other have changed, he said, paving the way for an educational process including work in both disciplines.

Dr. Brotzen began by posing the fundamental question: does engineering have any place at all in the university’s curriculum? Considering three points of view—historical, philosophical, and practical—he said that, while the first two viewpoints produce negative answers, the third is positive and most important.

Historically, he said, the technological fields have been considered apart from the intellectual endeavors of the universities. Philosophically, the engineer is not the “ideal” university student seeking all available knowledge with no interest in practically or specific goals.

Practically speaking, however, the engineer is at the university. The important question, then, is how he fits into its progress, its spirit, and its goals.

Quoting College Entrance Examination scores of the Rice freshman class, Dean Brotzen indicated that the freshman science-engineer is rated above academic students in liberal arts achievement.

From this evidence he concluded that “the engineers do not categorically obstruct university progress because of low verbal aptitudes.”

He added that each college has had at least one engineer as president and that the percentage of engineers in the Rice band exactly equals the percentage of engineers in the student body—despite, he added, the engineer’s heavy lab loads.

Therefore, he said, the engineer does not stand apart from other students; he has become an integral part of the academic community.

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These new pictures of the Rice engineer, considered in light of the fact that engineering is not a historical university function, convince Dr. Brotzen that there has been a fundamental change in attitudes to fit the engineer into the school's educational picture.

PART OF THIS change is the engineer's "new respect for intellectual values as opposed to purely utilitarian endeavors." Engineering curriculum now includes highly sophisticated research courses and many more liberal arts requirements, both of which serve to bring engineers into closer contact with other disciplines.

At the same time, he said, the attitude of the liberal arts community has been altered by the realization that an educated person in today's world must recognize "not only the author of 'Volpole' but also the significance of the Van Allen radiation belt."

DEAN BROTZEN sees the classical intellectual discipline as arbitrary administrative divisions of what is, philosophically, the whole realm of human endeavor.

However, he commented, specialization today is necessary for achievement. But this does not relieve the entire university of its responsibility to challenge the student in all areas, with special "terminal" courses in fields outside the focus of his own general studies.