URGENT!

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Department Chairman Reviews Conditions of Science Building

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The Department of Science and Mathematics has been housed in Green Hall since the fall of 1956. The building was designed to house the science and mathematic courses for a total student body of 400. In the fall of 1956 the college enrollment was about 350—with the department's enrollment at 212 broken down as follows: 73 in biology, 40 in chemistry, 4 in physics, and 95 in mathematics. Due to an increase in enrollment, the mathematics section of the Department was moved to Marks Hall in 1965; and the building had major renovation of its interior to increase its capacity for science courses. At the present, Green Hall has three lecture rooms, one general chemistry lab, one organic chemistry lab, one physics lab, two biology labs, one small dark damp storage room for physics apparatus, and six faculty offices.

In the fall of 1970 the college enrollment stands at 1472 full-time students with the Department's enrollment at 1636, broken down as follows: 451 in biology, 160 in chemistry, 30 in physics, and 1025 in mathematics.

Although the present building was adequate in 1956, the eight-fold increase in the department's enrollment of 210 in 1956 has put much strain on the building's capacity, has separated the department into two sections, has scattered the math faculty (only three now have offices in Marks Hall where most math classes are taught), has adversely affected faculty morale, has been an adverse factor in the recruitment of faculty and students, and has rendered it physically impossible or effectively stifled attempts to improve and expand the couse offerings of the department. It is a credit to the faculty that they have continued to perform with such excellence.

The facilities available for the biology program consisting of four different courses include two small laboratories and three classrooms shared with physics and chemistry. Note that two biology labs serve 450 students and four different courses. There is very little space to maintain, and none to properly maintain live material—certainly a necessity in biology! Plans for strengthening the Medical Secretarial Administration program will add another lab course.

The facilities available for the chemistry program include two small, seriously overcrowded laboratories and the three classrooms shared with biology and physics. Very close supervision by the faculty is the substitute for the fail-safe aspects of proper modern laboratory design. The laboratory furnishings and many important pieces of apparatus are outmoded.

The facilities for physics include one small lab and a dark, damp storage room. Physics share a common problem with the rest of the department—lack of space. The present lab is so small that only 12 students can enroll in one lab section. This means that a normal lecture section must carry an extra lab section. Now, I am not against a small teacher-student class ratio, but this is carrying things a little too far.

The lack of space is our most serious need. The faculty has no space for setting up demonstrations and for developing new lab procedures. The lack of proper storage areas has caused improper care of apparatus and in some cases actual damage. Some equipment and models have to be left out in the open to collect dirt and to be subjected to improper use. There is not a single place in the whole building where a student can set up apparatus for individual work without interfering with a regularly scheduled class. All but two faculty offices are crowded, dual-occupancy spaces. This puts a severe limit on the amount of counseling one can do.

Teaching by lecture method alone is no longer wise, either pedagogically or technologically; but we must continue to lecture almost exclusively because the lecture and lab rooms were not designed for efficient use of modern teaching materials. The building is too small and too antiquated for the teaching of modern university parallel courses in science.

These facilities are obviously inadequate for the present program and make it difficult to support any changes necessary to improve the science program at Chowan College. Until the planned new science building becomes a reality, the inadequacy of the existing facilities will frustrate the best efforts of the faculty.

I have mentioned some of the physical aspects of the over-crowding of the science building, but there exists a more fundamental problem. At the present, neither time nor facilities are available to support faculty research. While research in the traditional publishable sense may or may not be necessary, the pursuit of continuing study is clearly a requisite of a creditable teacher. One can hardly be a teacher of science without being a doer of science. The setting of the laboratory molds the role of the teacher. If he is unable to do science, his students soon become bored with the output of data. The ability to maintain the attitude of "constant curiosity" is the motive power of both creative science and creative teaching. The college must offer its faculty an opportunity to be creative in their teaching. They must be more than teachers of science, they must be doers of science. Therein lies the difference between just another educational mill and an outstanding college. The quality of the student is not a major factor in the quality of the education they receive. Science cannot be taught only from books, charts, pictures and drawings. It must be taught by the manupulation of material things. The student that learns science must be placed in an appropriate enviroment—an environment where people do science. Students will not study science if their teachers do not. It is the obligation of the college to provide this environment. We need the new building so that the teacher can do this better job of teaching the student—be it to use a meter stick or to study nuclear magnetic resonance spectra.

We now have the nucleus of a good faculty; but unless we construct a new building, it will be difficult to attract new faculty of high quality. As it is now, we may lose some of our better teachers unless the building is soon constructed. It is difficult enough to be a good teacher, but to have to face the inadequacy of our present facility makes the task even more difficult.

Chowan College has numerous obligations to its students. One important obligation is that we prepare the student for transfer to a senior college. This means, among other things, that we must offer the student exposure to modern scientific instrumentation. Some instruments and techniques commonly used by the senior colleges in their first two years are not here at Chowan, but we are adding to our inventory. There is real problem as to where we can install some of this much needed instrumentation. If I invest $3,000 of the college's money in an infrared spectrophotometer, I must be sure that there is an appropriate place to install the machine. We have just acquired such an instrument. It is in a small room used as a work area for student asset and storage for office supplies. The typing desk used by our student assistants had to be moved out in the hall. We have a machine that allows one to cultivate plants under controlled climates. It is a rather large machine. We have it in an already crowded general biology lab. One of our faculty is working on a herbarium collection. This type of work requires more space than we now have. The department needs an ice machine. When we get the machine we will have to install it in a place that will take up table-top space now in use or in a hall. We may soon run out of hall space.

We need to offer the liberal arts students an opportunity to study physics and chemistry. Most senior colleges now offer such courses for non-science majors. Speaking as a physicist, I think every college graduate should at least have a one semester course in a physical science. We also need to offer the biology major courses beyond general biology. In particular, we should offer the students a course in ecology or environmental science. Without a new building, we cannot hope to do these things.

The College has the plans for a new science building. This new building will be large enough to house the mathematics and science sections of the department. The plans have been studied by members of the Department of Science and Mathematics and the new building has been accepted as a solution to the problems described above. The new building should meet the anticipated growth of the college.

The college must offer its students an opportunity to solve problems in a creative manner. They must be able to apply the concepts they have learned. The new building is essential for this purpose.

If the college is to serve effectively as a private college, it must provide a unique and first rate educational program. This is essential for the continued growth and success of the college. The new building is essential for this purpose.

Although the present building was adequate for the student enrollment of 1956, the laboratories were at that time out of date and lacking even the most modest features of a modern science facility. Students and faculty are operating under abysmally poor conditions.

In my opinion we now offer you an opportunity to support a project of a magnitude of importance equal to that of the founding of the college.