The first major revision of the program was instituted in 1953 with the addition of four graduate seminars and limited funds for fellowships. In 1957 the supervision of the graduate program was delegated by the chairman of the department to the editor of The William and Mary Quarterly, a regular member of the department who, by his interest, facilities, and contacts, was admirably suited for this responsibility. The next significant development in the program came in 1959 with the introduction of the Apprenticeship Program in Historical Administration. Recognizing the need of combining academic studies on a professional level with practical training in the application of the historian's knowledge, the College, in cooperation with the Institute of Early American History and Culture and Colonial Williamsburg, Inc., established in 1959 a combined master's degree and five months of practical training in one of three fields of apprenticeship: The Editing of Historical Books and Magazines; the Operations of an Historical Library; and the Interpretation of <u>Historical Sites</u>. In 1962, the graduate course offerings were changed so that presently six seminars dealing with the literature, methods, and periods of American history are offered.

Seventy students have enrolled in the program since 1953. The department now has thirteen students enrolled. Less than half of those who have entered the program have received degrees, largely because of the failure to complete a thesis; and, though generally competent, they have not measured up to the department's better concentrators who have gone on to universities. The scholarly attitude and productivity of the department have probably been affected little by the graduate program because the decisive factors here are the individuals' interest in research and the opportunity to do research as determined by teaching student load. Because the College has given the graduate program adequate support and because the Institute and the Research Department of Colonial Williamsburg share the burden of graduate instruction, the graduate program has probably not worked to the detriment of undergraduate instruction by overloading the instructors and it may in fact have contributed to a minor degree to the strengthening of the scholarly approach in undergraduate courses.

Mathematics: The first two degrees were awarded in June 1963, and 21 students, full or part time, are presently enrolled. The program serves to support those in physics and biology and like them benefits from the presence of technological organizations in the area. Four full-year courses at the graduate level are offered along with reading courses carrying one or two credits.

<u>Physics</u>: The master's program of the physics department is designed to provide advanced professional training in physics for students wishing to become scientists, engineers, or mathematicians. Its most important objective, however, is to prepare students to continue their work at a university for the Ph.D. degree. The program consists of basic physics courses as well as advanced nuclear physics, astrophysics, and physics of ionized gases. These courses, which reflect the research interests of the staff, present the specialized material in such a way as to emphasize the basic physical content.

Ten or so full-time, on-campus students ordinarily work on theses associated with the research projects of a staff member. Approximately thirty students drawn from nearby government installations do most of their research for a thesis at Langley Research Center at NASA under the direction of a department member. The research activities of the staff which make possible graduate training also make possible good undergraduate instruction. To keep up with his field, a physicist must be engaged in research, and competent physicists could not be brought to the College or held here if the department had no graduate research program.

Psychology: The graduate program in psychology was begun largely in response to the wish of Eastern State Hospital for some kind of close association with the College whereby the mutual educational advantages of the two institutions would be exploited. The hospital created for graduate students four internships in abnormal psychology which can be occupied half-time at the rate of \$115.00 a month. The educational program is designed to create a rare and distinctive rich combination of experimental and abnormal psychology of a kind possible in very few places in America for those students most likely to benefit from a fifth year of schooling as a first leg on doctoral studies. It is not a terminal M.A. degree program but rather a vestibule to graduate school for promising students whose record or preparation at the end of four years makes immediate matriculation in a university either inadvisable or impossible.

The graduate program of study includes an introduction to research, seminars, and an introduction to abnormal psychology and clinical techniques, especially diagnostic testing, under the direction of the chief clinical psychologists at Eastern State Hospital.

The psychology department has a well-qualified staff and research equipment to conduct a limited graduate program— which has proved to be highly successful. The pressures of undergraduate teaching in terms of teaching and student load are such that to continue the graduate program in its present state will adversely affect the quality of undergraduate instruction in the department unless the staff is increased.

TOTAL GRADUATE REGISTRATION FOR 1963-64

Biology	7	(estimated)	Mathematics	21
Education	500		Psychology	7
History	13		Physics	<u>42</u>
			Total	590

Faculty

There is no separate graduate faculty, the graduate instructors being regular members of the various academic departments. There are 48 faculty members teaching graduate courses of whom 40, or 83%, hold doctorates. The remainder have the master's degree and most of these

have done considerable advanced graduate study. A list of publications and significant research by this faculty is given as an appendix to this report.

The names of members of the faculty engaged in graduate instruction are listed below, by departments, with their highest earned degrees. It is impossible to give a meaningful figure, in most instances, for the percentage of time an instructor devotes to graduate teaching. Most instructors teach courses in which graduates and undergraduates are combined as well as courses entirely for graduates; they also supervise research and theses which cannot be exactly equated with classroom hours. For most of the faculty engaged in graduate instruction, teaching loads have been reduced below the normal undergraduate load.

Biology

Black, R. E. Brooks, G. S.	Ph.D. Ph.D.	Pedigo, R. A. Terman, C. R.	Ph.D. Ph.D.
Byrd, M. A.	Ph.D.	Welch, B. L.	Ph.D.
Hall, G. W.	M.S.		

Education

Chesser, R.	M.Ed.	Holland, H.	Ph.D.
Clem, P.	Ph.D.	Ironside, R.	Ph.D.
Copeland, R.	Ed.D.	McCartha, C.	Ed.D.
Galfo, A.	Ed.D.	Riley, P.	M.Ed.
Herrmann, D.	Ph.D.	Sykes, J.	M.Ed.

Mathematics

Reynolds, Thos.	Ph.D.	Lee, J. R.	Ph.D.
Weiler, F.	Ph.D.	Shockley, J. E.	Ph.D.
Cato, B. R.	M.A.		

Psychology

Williams, S. B.	Ph.D.	Harcum, E. R.	Ph.D.
McKenna, V. V.	M.A.	Derks, P. L.	Ph.D.

Physics

Crownfield, F. R.	Ph.D.	McLennan, D. E.	Ph.D.
Lawrence, J. D.	Ph.D.	Smith, R. E.	M.A.
McKnight, J. L.	Ph.D.	Singh, J. J.	Ph.D.

Physics -- Newly added for 1963-64

Funsten, H.	Ph.D.	Siegel, R. (Research Prof) Ph.D.
Ofelt, Ġ.	Ph.D.	Welsh, R. (Res.Asso.Prof) Ph.D.

<u>History</u>

Abbot, W. W. Johnson, L. H. Tate, T. W. Sherman, R. B. McCully, B. T. Cappon, L. J.	Ph.D. Ph.D. Ph.D. Ph.D. Ph.D. Ph.D.	Smith, J. M. Gruber, I. D. Riley, E. M. Selby, J. E. Carson, J.	Ph.D. Ph.D. Ph.D. Ph.D. Ph.D.
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Evaluation

It is difficult to evaluate the College's program of graduate studies, which has grown in a haphazard, uncoordinated fashion. The circumstances under which the several programs have been instituted are so different, existing staff and facilities so varied in quality, and some of the programs so new that despite the existence of standard admissions requirements and supervision by a faculty committee it becomes necessary to evaluate them individually.

The older programs in history and psychology began with the advantage of adequately trained staff and unusual resources in the community. These programs have been continuously re-evaluated by the departments concerned and they have remained closely identified with undergraduate work. The great majority of the students involved are full-time residents in the regular session. In both departments there is encouraging evidence of the success of the programs in the increase in qualified applicants, and in the number of students who go on for the doctorate or are placed in professional positions.

The physics program and to some extent the mathematics program have undoubtedly contributed to the training and technical proficiency of the staff of the NASA Research Center at Langley Field. But to do this it was necessary to make major additions to staff and course offerings. Thus the cost of these programs, even with federal grants, has taxed the limited resources of the College. These observations also apply to the biology department which is operating under very difficult circumstances and now must wait for the new building upon which the program was predicated.

The master of education program is so large and the degree candidates in such different stages of training, including extension and evening college courses, that the department itself hardly knows how many graduate students it has. Furthermore it appears that the minimum standard for admission is waived all too often. Before the department of education became a graduate school of education, its admissions standards were frequently an issue in the graduate studies committee. Under the present arrangement, the M.Ed. program is independent of supervision or control by the graduate studies committee.

The large number of teachers and school administrators engaged in master's degree study in education has been handled by increasing dependence upon part-time teaching personnel, sometimes unqualified, and

additional extension credit in master's degree programs. Moreover the pressures exerted by local school divisions and the state department of education upon public school people to earn master's degrees as a means of improving their classroom performance and increasing their salaries have resulted in the amorphous growth of master of education degree courses of study irrespective of the ability of the School of Education to teach them.

The College has been persuaded to introduce some graduate programs and to consider others not only from pressures within and outside the College but also with encouragement from the Commonwealth. State authorities have endorsed the development of graduate work, particularly in the sciences, but the sad fact is that there is little evidence of the willingness of the Commonwealth to provide adequate resources even after commitment to a program has been made. Thus the College has found itself in the embarrassing position of lacking both funds and buildings for programs already underway or in an advanced planning stage. This has been most disheartening to the administration and to the departments concerned. It is easy to say that the College should not have embarked on such programs in the first place but in all fairness it should be added that it would have been most difficult to abstain, particularly when there was reasonable expectation of adequate support. Could a public institution, located a few miles away, refrain from developing a graduate program in science in conjunction with NASA? More specifically could the College refuse to participate in the Virginia Associated Research Center and once committed where could it stop? One step leads to another, and one graduate program leads to another.

Perhaps the soundest judgment regarding the policy of the College concerning graduate study can be drawn from the fiscal policy of the Commonwealth over the last decade or so. It is not clear that the state authorities will provide adequate support for a strong graduate program at the master's degree level. It is even more obvious that the Commonwealth has no intention of supporting a "second university" in the Tidewater area. The College should determine its policies accordingly.

The creation of graduate programs in some areas puts pressure on other departments to promote similar programs for the sake of the advantages of lowered teaching loads, higher salaries, and greater course diversity associated with graduate instruction. This tends to shift the emphasis throughout the College from undergraduate to graduate education. It is questionable whether the interests of a large and generally superior undergraduate student body should be sacrificed to those of a small and relatively inferior group of graduate students.

Faculty opinion on graduate study is divided; some favor rapid expansion, some oppose one or more existing programs and some are against any graduate offerings whatsoever. The faculty, including some scientists, has been deeply disturbed by the recent announcement of the Ph.D. program in physics, a decision in which the faculty had no voice. The basic fear is that this program will destroy the fundamental character of the College and transform it into an inadequately financed third-rate

university. Even if we assume adequate financial support, presumably in large measure from federal funds, where are we headed? Will the program be limited to physics, will it be conducted at VARC rather than on the campus, and is it possible to have a strong Ph.D. program in only one discipline or will the other sciences press for the doctorate in their disciplines? These are the unanswered questions which raise grave apprehensions among the faculty.

Recommendations

It seems necessary to introduce a master's program in chemistry to supplement those in the other sciences. Beyond this program, we are not convinced that the introduction of graduate programs in other departments is justified. We recommend that none be instituted without the most careful study of their effect on undergraduate education or without a clear understanding of how they will be supported. It may be that the "three year" master's degree, closely related to advanced undergraduate work, is suitable for William and Mary.

We ask the expanded committee on graduate studies to assume greater responsibility and closer supervision over graduate programs. The addition of members of departments not offering graduate work should enable the committee to be more objective and avoid the pitfall of representing vested interests. We urge the committee to raise standards for admission for the master's degree and establish in specific terms the requirements for the Ph.D. in physics according to the standards of the better universities. We do not recommend at this time a dean or director of graduate study. We feel that the present number of graduate students, except in education, does not warrant such an office, the creation of which might contribute to greater separation of graduate and undergraduate study.

When the physical facilities of VARC are complete, all graduate work in physics above the master's degree level should be conducted there rather than on the campus. Undoubtedly the other sciences and mathematics will participate to some extent in the Ph.D. program in nuclear physics but this participation should not be permitted to develop into separate or additional doctoral programs. In short the College should not attempt to introduce other doctoral programs.

We believe that courses in education offered in extension do not offer graduate students the incentive or opportunity to engage in study of the superior quality presumed necessary in their degree programs, nor are these subject to continued review and supervision. Therefore we recommend that extension credit no longer be allowed in graduate degree programs.

We also recommend the abolition of all master of education courses of study which the regular faculty members of the College cannot teach. This will necessarily mean that the practice of offering graduate degree programs hitherto pieced together with transfer, extension, and summer school credits should be abandoned: library science, special education,

distributive education, elementary education, and guidance, to mention a few. This does not mean that certain courses in guidance should not be taught by properly qualified faculty. Entirely apart from the matter of whether increasing the number of guidance counselors is the only or best way to meet emerging problems in the public schools, the School of Education can help provide certificated guidance counselors in a manner consistent with present state policy without making such courses part of a degree program.

This pruning of anomalous courses of study in the School of Education should have the effect of invigorating the courses the school is properly qualified to offer and by means of which it has in fact made a considerable contribution to the state and nation's public schools in the past. These courses are in the areas of public school administration and in secondary school classroom teaching in the subject matters offered in secondary schools.

We recommend abolishing the program and degree of master of arts in taxation (not the master of law and taxation), which has outlived its usefulness.

The financing of the graduate programs should receive careful study. Accurate figures on expenditures for the present programs and costs per graduate student are not now available. Some funds normally devoted to undergraduate purposes have been diverted to the needs of the graduate program. It appears that requests for state appropriations to support graduate work have led in some instances to reductions by state authorities in other items of the budget. All of this suggests that the financial resources of the College are being spread too thin. And federal research grants are by no means the complete solution of the problem because receipt of federal funds inevitably involves expenditure of institutional funds in equivalent or even greater amounts.

Consideration should be given to providing college housing (perhaps in a college house or in a dormitory unit) for the resident, full-time graduate students. This would not only reduce their living expenses but afford the opportunity for social and intellectual relationships among themselves and with undergraduates. At present they have no sense of belonging, their morale is poor, and they have little opportunity to contribute to the intellectual life of the College.

In conclusion, the College must establish as soon as possible a clear and stated policy on graduate study. This policy must be consistent with the basic aims and purposes of the College; it must be conducted within the limits of available rather than anticipated financial resources; it must conform to the highest standards of academic performance; and it must be understood and accepted by the Board of Visitors, President and faculty.

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APPENDIX

Student Opinion of the College

As part of the organization set up to examine the general area of the academic program, the steering committee of the self-study invited a representative group of students to serve on a committee on student opinion. This committee interpreted its assignment very broadly and in its discussions ranged over many aspects of the College. Its findings on numerous specific topics have been incorporated where appropriate in various sections of this report. But the committee's report touched upon so many facets of the College and reflected so many concerns of the student body that its conclusions deserve to be represented here as a whole.

The committee on student opinion consisted of three members of the faculty and twelve students, seven men and five women. The student members were selected by the steering committee to form a group as representative as possible of student leadership. They had little in common except that each had attained some distinction on campus academically or in some phase of extracurricular activities. Neither the steering committee nor the faculty members of the committee on student opinion made any attempt to steer the discussions of the committee in specific directions. The twelve students do not speak for the entire student body, though they did attempt to sound out campus opinion on many issues. Their views may sometimes show the extremity and even the inaccuracy of youth, but they also have its candour. These views do represent respected opinions among the student body and they should therefore be taken into account.

These students feel strongly that William and Mary should be a quality liberal arts and sciences college of moderate size, by which they mean an enrollment of 2000 to 2500. They are particularly concerned about the size of individual classes, which they recognize can be small within a large institution. The size of classes they believe to be the major problem at William and Mary at the present time. They cite their own experience, as juniors and seniors, of enrollment in classes of 48, 65, 72, or 84 members. It is clear to them that many complaints which students have about mechanized education, regurgitation of memorized facts, no class discussion, impersonal relationships between students and faculty, and lack of seminar courses, are related to the issue of class size. They believe that quality education depends upon the discussion of significant ideas and that education at William and Mary could be first-rate if the student-faculty ratio of 15.5 were

in fact true in actual classes.

Admissions policies and practices come in for criticism. The students are not convinced that all of the top 800 among more than 5000 applicants are in fact being admitted and they feel it is misleading when the College proclaims that 800 have been selected from 5000 with no further explanation. They oppose a policy which they see as favoring a steady decrease in the number of out-of-state and a consequent increase in the number of in-state students, and in support of this view call attention to the predominance of out-of-state students in campus organizations and student leadership. They object to reduction of the number of students from northern Virginia, claiming that such students have had consistently better records both in high school and at William and Mary than those from other areas of the state. They believe that the student body at present has a fair degree of heterogeneity but that this is decreasing as the College goes further in the direction of becoming a predominantly parochial institution. Heterogeneity in terms of social-economic class, geographical origin, race, religion, and style of life is, they hold, educationally valuable. They oppose what they see as an evident practice of admitting male students who, although less qualified, are given preference over female students, both in and out-of-state. Finally, they feel that the admissions policy of the College should be made public to quell the campus-wide feeling, perhaps unfounded, concerning the inadequacies and injustices of current policy and practice.

The students do not regard the present administration as particularly severe or authoritarian but rather feel disappointment over its apparent failure to provide enlightened leadership. They favor the publicly proclaimed emphasis on "excellence" and the "educated man" but see little convincing evidence of concrete actions to advance quality education. They feel that the College has no clearly formulated policy as to what it is and what it should be.

As to the faculty, the students have great praise for some and condemnation for others. They feel that the quality of faculty members is uneven: some are competent and inspiring, others fail on both counts. They feel strongly that there is obvious evidence of incompetence within particular departments. Their central concern is that the turnover among the most competent faculty members seems abnormally high. The students do not pretend to know in detail why this is so, but they do know that it has something to do with salary scale and the conditions under which faculty members work and they realize that other institutions must be offering something better than William and Mary on both points.

By a college of liberal arts and sciences these students mean that the major areas of study should be within the three academic divisions of the humanities, natural science, and social science; and that vocational or applied fields should be limited. They identify these as home economics, secretarial science, speech, radio and television, business administration, and education. They see some value in such fields

and think courses should be available on a limited basis but consider that concentration in these fields is inappropriate in a college claiming to be devoted to liberal education.

Students are reasonably satisfied with the content of the curriculum, but criticize the manner of presentation. They say classes are too large, learning is mechanized, discussion of ideas is insufficient, and seminars are a rarity. While the educational material presented is sound, the process, which emphasizes the rote memorization of lecture notes as opposed to the discussion of ideas, leaves much to be desired. They reiterate that over-sized classes at present "represent the main obstacle for the proper pursuit of learning." They find overcrowded laboratory sections in the natural sciences particularly distressing. They express a need for the integration of knowledge and ask why there are not more inter-departmental offerings, courses taught jointly by members of different departments, "great books" courses, courses with a general theme (citing as a model a recent faculty lecture series on "The Good Life and American Society"), and a four-year honors program.

Students view the freshman year as more an extension of high school than the beginning of college. Again the complaint is that classes are too large, mechanized, and routine rather than stimulating, challenging, and provocative. This they say tends to ruin the student's attitude toward learning, which is overcome by some as they concentrate in their junior year, but is never entirely overcome by a large portion of the student body. They suggest a "great books" course in the freshman year. Indeed they recommend that a selected list of about five books be sent to entering freshmen in June, one of which would be discussed with faculty members and student leaders in small groups during orientation week in September; this procedure would give freshmen the notion that college concerns books and ideas rather than administrative procedures and social life.

Orientation week is criticized as too much concerned with administrative procedures and social and other non-academic activities. The only source of information about academic courses is in the hard-to-interpret catalogue; the impersonality of professors and the inadequate knowledge of student sponsors about the curriculum handicaps the freshman in his course planning. Students recommend a faculty advisory board or a system of individual advisors to aid freshmen in course planning. They find little value in orientation speeches to large groups concerning information which can be read in handbooks and recommend instead small group discussions led by faculty members and student leaders. There is a strong feeling that the freshman is lost when he comes to William and Mary: he has no advisor, social life is limited, and in general he finds himself in a very impersonal atmosphere. The concept of "the college community" is for him a catalogue fiction.

Students see the Honor System as one of the finest of the College's traditions and the general feeling is that the honor code works very well. Opinion is that cheating is fairly limited, although certain departments are known to have had more than a fair share. Two problems

are mentioned: plagiarism is not well understood, especially by freshmen, and books "borrowed" from the library are not typically seen as falling under the honor code. The students suggest that the library might consider new control procedures.

The college policy on drinking is an enigma to these students. They point out that although the catalogue flatly forbids alcohol the College each week removes quantities of bottles and beer cans from fraternity row, and they observe "there must be some limits to hypocrisy." They suggest that college policy would be more realistic if it simply conformed to state law; that is, if it permitted the consumption of 3.2 beer only by persons under 21.

College services are generally held in low esteem. The cafeteria is viewed as a typical low-budgeted institutional operation, also overcrowded. Student members of the committee report that there are numerous cases in which their fellows have given up \$200 or \$300 scholarships in order to avoid eating in the cafeteria and they recommend that the requirement that all scholarship students eat there be rescinded. They complain that the bookstore is too small and the choice of books, other than textbooks, too narrow. The infirmary they find simply bad. The competence of the staff has been seriously and consistently questioned. Students would like to feel that diagnoses are accurate and medication is properly prescribed. They do not at present. A competent full-time doctor and a consulting psychiatrist are suggested. As for the laundry, clothing is damaged repeatedly but all appeals are futile.

Students feel that their opinion on college services has always been futilely expressed. The impotence of student sentiment is evidenced by the failure of student government efforts through petitions and letters to achieve any degree of improvement. Students feel very strongly that their suggestions should be given attention, since they are theoretically the beneficiaries of these services.

Big time athletics at William and Mary is not favored by the student members of the committee. Some say the College should be competitive in the Southern Conference; but others would prefer to play against smaller colleges such as Washington and Lee, Haverford, and Johns Hopkins. Perhaps football should be de-emphasized in favor of basketball and track since fewer players are required. Scholarships might also be given to scholars rather than being reserved almost exclusively for athletes.

Students suggest that the intramural athletic program has been expanded to the point that there are more sports to be played than there are people capable of playing them. They also report instances of brutality in games which indicate that referees do not have sufficient authority to enforce the rules or even to maintain order.

It should be reiterated that the opinions reported above are those of a small, though respected, group of students. The steering committee does not necessarily endorse these views. Nevertheless, the fact that

responsible student leaders hold them is part of the total picture of the College at the moment.







