



Virginia Department of Planning and Budget
Project Request Justification

2006-2008 Biennium Date: July 22, 2005

A. General Information

- 1. Agency name: Virginia Tech
- 2. Agency code: 208
- 3. Project title: Construct Classroom Building
- 4. Agency priority: 15
- 5. Contact Person: M. Dwight Shelton, Jr.
- 6. Contact's telephone number: (540) 231-8775
- 7. Contact's e-mail address: mdsjr@vt.edu

B. Proposed Project

1. Project Cost:

General Fund/General Fund supported debt	18,500,000
Nongeneral fund	
9 (c) revenue debt	
NGF supported 9 (d) revenue bonds	
Total request	18,500,000

2. Project cost changes:

NONE.

3. Description:

- This is a new project on the university's capital plan and is included in the first biennium as a high priority to increase the number of quality general assignment classrooms that are in high demand and short supply. This project proposes to construct a 61,000 gross square foot building housing about 26 large-size classrooms and support spaces for state-of-the art instruction practices expected by our students.
- The project scope was established using a consultant to conservatively estimate the optimal configuration of instructional classrooms for the university's enrollments and course schedules.
- The life expectancy of the project is 80 years with proper maintenance.
- The classroom building is 100 percent support for the Educational and General program and thus the proposed funding plan calls for \$18.5 million of General Fund support.

4. Project scope change:

- The original scope as describes in the H-1 form included 32 classrooms with 80 seats each at 15 square feet per seat (table and chair seating type). This totaled 32 classrooms @ 80 seats x 15 square feet each = 38,400 net square feet, serving 2,560 students.
- Subsequent preliminary planning of classroom needs has identified the following program spaces that need to be added to the building program to improve classroom instructional technology delivery to students: classroom support space housing A/V systems and equipment and educational support materials, and dedicated classroom storage space for flexible arrangements of classroom furniture.
- The review work developed a solution that improved that number of students that could be served in the same overall amount of gross square feet and budget.
- The proposed revised program will accommodate more students with 26 classrooms, 14 with tables and chairs and 12 with desks. This includes 14 classrooms @ 90 seats x 15 square feet each= 18,900 net square feet, serving 1,260 students and 12 classrooms @ 135 seats x 10 square feet each= 16,200 net square feet, serving 1,620 students. This solution combines to total 35,100 net square feet serving 2,880 students, an increase of 320 students served.

5. a. Approved Master Site Plan:

Yes No

If not, explain:

b. 2004-10 Capital Outlay Plan:

Yes No

If not, explain:

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6. Equipment for a previously funded project.

NONE.

7. Supplement to a previously funded project.

NONE.

C. Project Justification

1. a. Existing condition:

- The university, as of fall 2005, currently has 168 general assignment classrooms in its inventory, scattered among 27 campus buildings. The inventory ranges from approximately 30 classrooms that can support state-of-the-art instructional technologies to a large portion of out-dated, ill-sized classrooms.
- A portion of the most used, medium-sized classrooms are being renovated with funding from the 2002 General Obligation Bond program and this is a critical step in the right direction; however, no new classrooms will be provided in the 2002 program. Further, the 2002 renovation program will result in the loss of classroom seats – capacity – as existing classrooms are brought into code compliance and seating is adjusted to improve classroom instructional technology performance.
- The university, in preparation for the renovation program, has recently completed a classroom utilization study prepared by a nationally recognized higher education planning consultant. The consultant’s study concluded Virginia Tech’s general assignment classrooms are on average scheduled at a 130 percent utilization rate, using a national 45-hour calculation standard which measures the peak instruction times. This is the highest utilization the consultant has seen at any institution of Virginia Tech’s size, which indicates the university is scheduling classes very efficiently during the traditional classroom day.
- The university’s unmatched high utilization of classrooms can not be improved further, which has led the university to conclude that new classrooms are needed to schedule a growing number of course offerings that are necessary to meet the demands of our students.

Higher Education Only

b. Facility Condition Index:

FCI _____

c. Space deficit:

Yes **No**

2. Programmatic information:

- The university has recently completed a classroom utilization study prepared by a nationally recognized higher education planning consultant. The consultant’s study concluded Virginia Tech’s general assignment classrooms are on average scheduled at a 130 percent utilization rate, using a national 45-hour calculation standard which measures the peak instruction times.
- The consultant helped the university reach five critical conclusions related to its ability to achieve its undergraduate academic strategic plan.
 1. The university needs to provide its faculty more flexible learning environments – classrooms – as the use of technology expands through the institution’s curricula. Virginia Tech needs more classrooms that can be configured to support group work, to physically support the use of laptop computers in the classroom, and that can adjust to the new instructional technologies now being implemented across the campus.
 2. The existing classrooms need to be “decompressed” to accommodate the modern teaching methods described above. In other words, the number of stations per room

will drop to make way for ADA requirements and technology. This transition is already underway with the implementation of the 2002 GOB classrooms renovation project.

3. The existing inventory of classrooms will not meet existing demands or have capacity to deliver instruction for any potential enrollment changes when renovations for modernizations are complete as a result of the decompression.
 4. Future classrooms will need to be physically larger to handle the same number of stations using modern teaching methods.
 5. The university is having limited success in shifting undergraduate classes to evening delivery because students avoid those schedule times. The university is finding that much of the general assignment classroom inventory is scheduled for informal tutorial and recitations, student organization meetings, and other “spot” assignments that support many of the programs and activities found on its large, residential-based campus.
- The existing inventory of classrooms does not meet the expectations of the students and lack the capacity to sufficiently schedule courses in conjunction with current teaching learning practices. Without the addition of a new classroom building, the university may not have the capacity to schedule a growing number of course offerings that are necessary to meet the demands of our students and assure that students can get the courses needed to complete their degrees on time. As a result, course offerings may be limited and students may need to defer courses to future academic sessions, delaying credits needed for graduating.

3. Alignment to strategic plan:

This project will support Virginia Tech’s strategic plan in the areas of Graduate Education and Undergraduate Education. When completed, the Classroom Building will alleviate constraints placed on course offerings due to the current shortage of modern, general assignment classrooms on campus and, thus, support the following university goals:

Graduate Education:

1. Increase the quality of the graduate programs.

Undergraduate Education:

1. Maintain a current, relevant, and comprehensive undergraduate curriculum.
2. Strengthen the quality of undergraduate instruction.
3. Create learning experiences for undergraduate students that maximize the benefits of attending a large research university.
4. Expand the university’s leadership role in the effective integration of instructional technology and pedagogy.
5. Manage the undergraduate enrollment to ensure a quality undergraduate experience and fiscal responsibility.

D. Options Considered

Other options considered but not selected include leasing facilities, renovating existing space, or delaying the project entirely. Constructing a new classroom building is the

selected option because it is the most cost effective solution to the shortage of modern instructional space.

Leasing is not a feasible option as a permanent solution because it is not financially favorable long-term to enter into a capital lease for this project, particularly when the scheduling difficulties of students and faculty commuting to an off-campus location are considered.

Renovating an already existing facility is not a viable option because the University currently operates with a shortage of instructional space. Furthermore, the majority of classroom space on campus does not include adequate levels of essential infrastructure support and would be less economical to develop as opposed to new construction. Thus, no appropriate existing space is available to allocate for renovation to accommodate this expanding program.

Delaying the project to a future biennium is not a viable option because without the addition of a new classroom building, the university may not have the capacity to schedule a growing number of course offerings that are necessary to meet the demands of our students. As a result, course offerings may be limited and students may need to defer courses to future academic sessions, delaying credits needed for graduating.

E. Project Schedule Changes:

NONE.