



Program Plan for the Business School - Revision

University of Colorado Denver
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I. Overview

a. Executive Summary

From its inception, the Business School at the University of Colorado Denver has focused on providing working professionals with graduate and undergraduate education. The School of Business features the largest accredited graduate school of business in the region, with over 1,000 graduate students. In addition to the many areas of concentration available in its traditional degree programs, the non-traditional programs of the Business School (The 11-Month MBA Program, the Bard Center for Entrepreneurship) and affiliate partners (The Executive MBA Program) offer unique formats for business education.

The existing programs of the Business School are expected to see continued growth, and there is no room within their existing inventory of space for expansion. In addition, the Business School will soon be launching three new programs-*Bioentrepreneurship, Sports and Entertainment Management, and Global Energy Management*- in response to the following trends that are impacting the global business community and business education:

- Globally Interdependent Economy
- New Information Technologies
- Managing for Sustainability
- Importance of Innovation and Entrepreneurship

A new building is needed to accommodate growth, but is also needed to bring the Business School together in one location. The Business School is currently spread over six physical locations, one of which collectively encompasses the many classrooms being used by the Business School on the Auraria Campus. This alignment makes it difficult for the school to create a strong, clear identity. A new building will greatly enhance the student experience, by providing a central point where students can learn and create in ways both formal and informal. The Business School building will also enhance the visibility of the school and encourage members of the business community and Business School alumni to come to the facility to mentor, teach, and recruit.

This document revises the previous program plan dated October 25, 2007 and approved by the CU Board of Regents on November 29, 2007. This revision outlines a program for the purchase and renovation of the Lawrence Court Office Building for the Business School. Lawrence Court, located at 1475 Lawrence Street in downtown Denver, totals 153,117 gross square feet (GSF) which includes 104,179 GSF of programmable space and 100 underground parking spaces. The building is located in close proximity to other University of Colorado Denver Buildings, the Auraria Campus, Larimer Square and the 16th Street Mall. The facility is of adequate size to accommodate the Business School Program, satisfies all of the site requirements outlined by the Business School, and provides UC Denver the opportunity to accelerate the opening of the new Business School by purchasing an existing building rather than developing an unimproved site. The purchase of the building will cost \$24,550,000. The renovation of the

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building is estimated to cost an additional \$15,000,000. The University of Colorado Denver will own and operate the facility, and the Business School will embark on a capital fundraising campaign to fund the renovation of the facility. Renovation of the building is scheduled to begin in November of 2008, when the building's largest tenant vacates. Occupancy is scheduled to occur at the start of the spring semester, 2010.

b. Description of Academic Programs

The Business School Building will house only the UC Denver Business School and its affiliated programs. A description of the Business School is below. More detailed information is included in the most recent Business School View Book, attached as Appendix A.

i. Mission of the Business School

In today's global business environment of rapid change, accelerating innovation and intense competition calls for a dynamic form of leadership and skill from business professionals. Emerging and mid-sized businesses form the core of the new economy in the West and require leaders who can transform ideas into action, quickly resolve problems, anticipate future challenges and opportunities and know how to partner. To thrive in this fast changing world, business professionals need to be entrepreneurial, innovative and adaptive, and possess a global mindset. Today's graduates will face a more competitive world with more customers, collaborators, and partners. It is a world that demands agility, innovation and entrepreneurship.

The Mission of the Business School is the following:

“Our mission at the Business School is to empower graduates to succeed in this changing global economy. We do this by creating and disseminating knowledge of value. We work in partnership with businesses in the community and around the world.”

The Business School fulfills this mission in the following ways:

“We have strong collaborative partnerships with the business community in the major industry sectors of the region including bioscience, energy, financial services, information technology and sports/entertainment. We provide programs, events, research, interns and employees. Businesses also sponsor professorships, scholarships and events.”

“We create and disseminate knowledge of value to academic and business communities. We focus on knowledge that is current and relevant to students, alumni, colleagues and the business community.”

“We empower graduates to succeed in a changing global economy. Through research, teaching and experience our graduates are prepared with the knowledge, skills and behaviors required in business. Our graduates flourish in global environments, understand global commerce, appreciate cultural diversity and foster a sustainable environment.”

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ii. Vision of the Business School

The vision for the UC Denver Business School is the following:

*Transform Business Education and Denver's Future for the 21st Century:
Engage the Community*

"The Business School will become one of the top global schools recognized for the quality of research, teaching, and unique areas of excellence that benefit the people of Colorado, the nation and the world. We will:

- I. Drive economic growth and vitality in the community by preparing business leaders to compete and work in the global economy.*
- II. Link Denver and Colorado to the world market as a global hub for emerging industries and as a center for business innovation and entrepreneurship.*
- III. Be a magnet for talent and expertise in key industry clusters and centers of excellence in business education.*
- IV. Develop innovative learning and teaching experiences that allow students to learn anywhere they go.*
- V. Empower graduates to succeed in the changing global economy by creating and disseminating knowledge of real value.*

iii. History and Background

The Business School at the University of Colorado Denver is located in downtown Denver, Colorado in the center of the city's business, recreational and commercial districts. Denver has a thriving business community as well as vibrant cultural and sports venues within walking distance of the campus. Denver is also one of the fastest growing job markets in the country.

The Business School started as a branch of the University of Colorado in downtown Denver. In 1975 the University of Colorado at Denver became part of a four institution system of the University of Colorado—Boulder, Denver, Colorado Springs and the Health Sciences Center. In 2004, the University of Colorado at Denver merged with the Health Sciences Center. The consolidated University of Colorado Denver is now a major public urban located research university serving more than 27,000 students annually. With 100 degrees and 11 schools and colleges, UC Denver grants more graduate degrees than any other university in Colorado. Finally, with \$365 million in research funding and 12,000 employees, UC Denver is a major employer with significant economic impact in Colorado.

The Business School is the largest accredited graduate school of business in the region with over 1,000 graduate students. With the recent opening of residence halls downtown, the Business School now has 1,300 undergraduate students. The majority of the undergraduate students are full-time students.

From its inception the Business School has focused on providing working professionals with graduate and undergraduate education. This includes successfully linking theory and practice,

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providing flexible program designs that range from one course to complete degrees. With six MBA options and seven specialized MS degrees, students can tailor the program to meet their career goals.

iv. Organizational Structure

Academic Programs Offered

The following undergraduate and graduate programs are offered by the UC Denver Business School:

UNDERGRADUATE

- Business Administration (B.S.) – including the following primary areas of emphasis
 - Accounting
 - Financial Management
 - Human Resources Management
 - Information Systems
 - International Business
 - Management
 - Marketing

GRADUATE

- Business Administration (M.B.A.) – including the following offerings
 - Professional MBA (evening)
 - Executive MBA – (see Affiliated Centers/Programs below)
 - Executive Health Administration – (see Affiliated Centers/Programs below)
 - Full-time 11-month MBA – (see Affiliated Centers/Programs below)
- Masters of Science Degrees (M.S.)
 - Accounting
 - Finance
 - Health Administration
 - Information Systems
 - International Business
 - Management and Organization
 - Marketing
 - Dual MBA/MS offered in conjunction with the Professional MBA program
- Doctorate (Ph.D.)
 - Computer Science and Information Systems

Affiliated Centers/ D2 Programs

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Executive MBA/MHA

The Executive Masters of Business Administration (XMBA), a program collectively operated by CU's three universities, is managed by the Office Executive Programs on the downtown campus of UC Denver. The Executive Masters of Health Administration (XMHA) program is also administered by the Office of Executive programs. However, this program is a UC Denver program only.

The XMBA and XMHA degrees are offered in an "executive" format, which allows working professionals to continue working while completing the program. This is accomplished by combining full-day class sessions with weekend sessions. The executive format places a premium on students who have significant workplace and managerial experience and focuses on teaching real world business applications.

11-Month MBA

The 11-month MBA offers a traditional MBA degree in a non-traditional format. As the name implies, the program is compressed into an 11 month period. Students attend class much longer in the course of a week than they would in an evening or traditional day MBA program. However, this tradeoff allows them to complete the program in a much shorter time and enter the workforce. The distinctive features of this innovative program include corporate executive partnerships and an international travel and study experience.

Bard Center

The Bard Center for Entrepreneurship is a place where students, faculty and entrepreneurs come together. The center is focused on the teaching and practice of entrepreneurship by accelerating the launch of new start-up companies and driving development of new products and services. The teaching of entrepreneurship includes a graduate course tied to the MBA program. The Bard Center's programs are an integral part of the economic development activities and growth of Denver and Colorado.

Institute for International Business

The Institute works closely with and draws faculty expertise from the Business School. They offer nationally recognized programs in international business, such as the faculty development programs in International Human Resources and International Entrepreneurship.

Program Accreditations/ Distinctions

The Business School at UC Denver, as a whole, is accredited by The Association to Advance Collegiate Schools of Business (AACSB), a distinction bestowed upon less than 15% of all business programs in the world. AACSB accreditation insures the quality of the faculty, curriculum and graduates.

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In addition to this distinction for the Business School, individual programs and affiliated entities in the Business School have been recognized as follows:

- The Accounting programs have earned their own accreditation from AACSB International.
- The Health Administration programs have been recognized by the *Accrediting Commission of Education for Health Services Administration (ACEHSA)*.
- The Health Administration Program was one of the first executive programs in the nation and is the only ranked executive health program in *US News and World Report*.
- The Bard Center for Entrepreneurship is ranked #3 as a regional program in *Entrepreneurship Magazine*
- The Institute for International Business has been nationally recognized as a Center for International Business Education and Research by the U.S. Department of Education for the past 14 years--the only one in Colorado. It is in the company of elite schools such as The Wharton School of Business, and Columbia and Duke Universities.

v. Community Context

The UC Denver Business School is linked to the local, national and global business community in a number of different ways. The Business School has more than 150 executives and community leaders on various boards and advisory councils. These executives and community leaders come from major companies such as Comcast, Ernst & Young, Frontier Airlines, IBM, Molson-Coors, PricewaterhouseCoopers and Wells Fargo as well as midsize and smaller companies like Exempla, Myogen and Pacific Care. These leaders provide financial support, participate in curriculum reviews, serve as guest lecturers, offer internships, participate in placement events and participate in strategic planning activities at the Business School.

Students of the Business School regularly participate in internships and class projects that support businesses, hospitals, governments and other non-profit community groups locally and across the world. Business school graduates are encouraged to participate in community leadership programs such as the Downtown Denver Partnership Emerging Leaders Program and to be leaders in professional associations like the Society for Human Resources Management. Overall, the Business School engages in collaborative efforts with the Denver Chamber of Commerce, the Metro Denver Network, the Downtown Denver Partnership and local and regional offices of economic development.

Several of the UC Denver Business School's academic programs and affiliated centers have ties to the local, national, and even broader global community.

- *The 11-Month MBA* has undertaken partnerships with prominent businesses such as British Telecom, IBM, Molson-Coors and Prologis. These partnerships offer "live cases" where students address key strategic issues and "burning questions" presented by the corporate partners.
- *The Bard Center for Entrepreneurship's* students, faculty, incubator companies, and business plan competitors benefit from extensive involvement from the business community. In addition,, organizations such as Metro Denver Chamber of Commerce, the Downtown Denver Partnership, and the Fitzsimons Bioscience Business Incubator are partnering with

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the Bard Center to support student entrepreneurs through internships, networking connections, advising and mentoring new ideas and companies.

- *The Institute for International Business* The Institute for International Business and the Business School bring top global executives and faculty to speak to the local business community on significant global issues.
- *The Executive Health Administration program* is a joint venture between the Business School and the Network for Healthcare Management, a consortium of 15 top health administration programs which include University of California at Berkeley, University of Michigan, Northwestern University, the University of Pennsylvania (Wharton School) and University of Washington. The program offers a combination of intensive on-campus sessions, computer conferencing and computer-directed case analysis. The faculty are drawn from consortium members and offer a rich perspective on the health care industry.
- *The Center for Information Technology Innovation* is an advisory council comprised of the CIOs of major companies in Colorado. The center provides students and faculty with information on the latest IT technology practices in use in the industry.

c. Relationship to the Facilities Master Plan

In 2007, the Auraria Higher Education Center Master Plan was updated by a consultant team comprised of Sasaki Associates, studioINSITE and U³ Ventures. The master plan was approved by the Auraria Higher Education Center Board of Directors on June 20, 2007 and approved by the Colorado Commission on Higher Education (CCHE) on February 1, 2008. The plan includes five (5) development principles:

1. Expanding the campus to meet the current and future needs of the institutions

The 2007 Auraria Master Plan revealed a current space deficit (including all institutions) of 158,234 asf of classroom facilities and an overall deficit of 732,639 asf. Of the 732,639 asf, approximately 259,564 asf represents UC Denver needs. By 2026, without the introduction of any additional space, the Auraria Campus numbers are projected in the plan to increase to 230,810 asf and 1,179,268 asf respectively. The acquisition of 1475 Lawrence Street for the Business School will narrow the space deficit gap for UC Denver and at the same time for the entire Auraria campus.

2. Enhance the identity of the institutions

One of the specific areas of concern cited in the master plan is a lack of institutional identity for each of the three institutions that share the Auraria campus- University of Colorado Denver, Metropolitan State College of Denver, and Community College of Denver. The master plan addresses this issue by establishing physical neighborhoods for each of the three institutions, with the recommendation that future development reinforce these neighborhoods to create some distinction amongst the institutions. The neighborhood area outlined for UC Denver is on the eastern edge of the campus (bordering Speer Boulevard). Lawrence Court not only lies in close proximity to the UC Denver neighborhood, it is within one block of two facilities already owned and occupied by UC Denver- the CU-Denver Building (1250 14th Street) and the Lawrence Street Center (1380 Lawrence Street). The Lawrence Court site will serve to reinforce UC

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Denver's Auraria Campus neighborhood and strengthen UC Denver's presence across Speer Boulevard in the Central Business District.

- 3. Support the educational objectives of the three institutions, with specific emphasis on the student experience outside of the classroom.*

The Business School will incorporate some of the latest technological and design advances, and provide non-traditional learning spaces such as a trading room and breakout study rooms. It will also provide a consolidated location for students, faculty and members of the business community to gather to exchange ideas and to learn as a community. In this way, the Business School supports the enhancement of the overall learning environment.

- 4. Create strong connections from campus to the core of downtown Denver.*

Creating strong connections from the campus to downtown Denver is a major point of emphasis in the 2007 master plan. Historically, the principal cause of this disconnect has been Speer Boulevard, and the perception that the institutions of the Auraria Campus lie isolated across this roadway and out of reach of the downtown community. The Lawrence Court site will improve downtown connectivity by extending the Lawrence Street spine of the campus further into the fabric of downtown, and frame Lawrence Street (and Lawrence Way) with academic buildings from 15th Street west to the eastern edge of the Auraria campus. Programmatically, the Business School is uniquely suited to connect with the downtown community given the status of Denver as the hub of business for the Rocky Mountain Region.

- 5. Adherence to the principle of sustainable planning and design.*

The building will comply with State of Colorado requirements regarding Leadership in Energy and Environmental Design (LEED) certification.

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II. Justification

a. Existing Conditions

i. Current Program Enrollment

The following enrollment and contact hour data were taken from the fall 2006 semester.

	Undergraduate	Graduate	TOTAL
Headcount	1,382	1,033	2,415
Credit Hours	11,146	6,807	17,953
Contact Hours	9,781	5,298	15,079

Table 1: Business School Enrollment (Fall 2006)

ii. Current Space Inventory

Existing Locations

The activities of the Business School occur in six (6) different locations. These locations are illustrated in Figure 1, located on the following page. Figure 1 is followed by a description of what activities occur in each location as well as the square footage in each location listed by function.

NOTE: The number next to each of the location descriptions correspond to the number shown on Figure 1.

University of Colorado Denver- Downtown Campus

Business School Program Plan

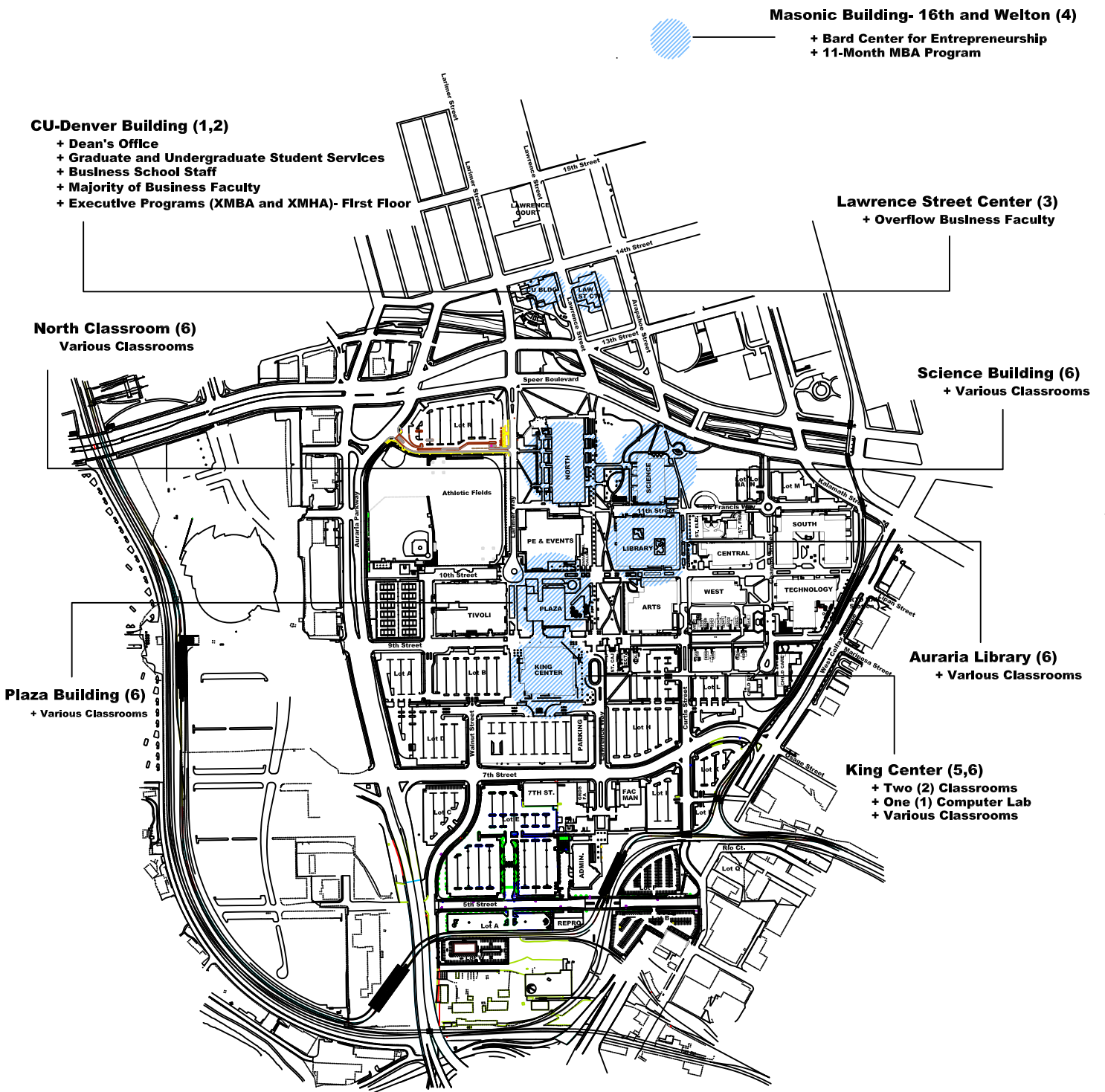


Figure 1: Current Business School Locations

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1. CU-Denver Building 1st Floor

The Executive Master in Business Administration (XMBA) program and the Executive Master in Health Administration (XMHA) program, both managed by the Office of Executive Programs, are housed in the first floor of the CU-Denver Building.

Both programs operate entirely within this suite, without relying on any exterior teaching or meeting space. The CU-Denver Building is at 1250 14th Street, between Lawrence and Larimer. A breakdown of this space by space type is located below.

Executive Programs	ASF	GSF
OFFICE	2,491	4,018
INSTRUCTIONAL	1,283	2,069
OTHER	853	1,376
TOTAL	4,627	7,463

Table 2: Executive Programs Space Inventory

2. CU-Denver Building- 2nd Floor

The heart of the Business School lies in the CU-Denver Building on the second floor. The dean's office, undergraduate and graduate student services, professional staff and a majority of the faculty reside within this space. The Business School occupies the entire second floor of the CU-Denver Building. A breakdown of this space by space type is shown below.

CU-Denver Building	ASF	GSF
OFFICE	13,923	22,456
OTHER	261	421
TOTAL	14,184	22,877

Table 3: CU-Denver Building Space Inventory

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3. Lawrence Street Center

Suite 390 in the Lawrence Street Center is used to house business faculty that do not fit into the 2nd floor space in the CU-Denver Building. The Lawrence Street Center is at 1380 Lawrence Street, between Speer and 14th Street. A summary of the Lawrence Street Center space by space type is shown below.

Lawrence Street Center	ASF	GSF
OFFICE	2,254	3,635
OTHER	237	382
TOTAL	2,491	4,018

Table 4: Lawrence Street Center Space Inventory

4. Masonic Building

The Bard Center for Entrepreneurship and the 11-Month MBA Program collectively occupy the entire third floor of the Masonic Building, located at the intersection of 16th Street and Welton Street in downtown Denver. They share many of the rooms. To reflect that in the space summaries, the square footages of the shared spaces have been divided equally between the two programs. Both programs are D2 programs and, like the Executive Programs, are self contained.

Bard Center

The Bard Center for Entrepreneurship provides both a graduate level academic curriculum and a range of services to help launch and grow entrepreneurial businesses. In addition to teaching entrepreneurship to over 350 students a year, the Bard Center provides space, services and mentorship opportunities for up to 10 companies in its incubator space. The Advisory Council is at the core of the Bard Center and provides funding, guidance, and support to the entire entrepreneurship program. The Bard Center is also benefited by having its own venture fund which allows the Bard Center to provide necessary seed capital to new ventures. The current Bard Center space allotment is below.

Bard Center	ASF	GSF
OFFICE	2,002	3,229
INSTRUCTIONAL	1,497	2,415
OTHER	779	1,256
TOTAL	4,278	6,900

Table 5: Bard Center Space Inventory

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11-Month MBA

The 11-month MBA program is an accelerated degree program where students attend class throughout the day, five days a week in order to complete their degree in a shorter period of time. The current 11-Month MBA space allotment is below.

11 Month MBA	ASF	GSF
OFFICE	302	486
INSTRUCTIONAL	1,011	1,631
OTHER	603	973
TOTAL	1,916	3,090

Table 6: 11-Month MBA Space Inventory

5. King Center

The Business School manages a computer lab and two specialized SMART classrooms in the King Center. The use of the computer lab is restricted to Business students, and it is operated as a drop-in, general use computer lab. It is in room 216. The classroom spaces (KC 113, 205) are scheduled by the Business School only. They are not available for scheduling by any other college or institution. A summary of the square footage of these spaces is provided below.

King Center	ASF	GSF
INSTRUCTIONAL	4,279	6,902
TOTAL	4,279	6,902

Table 7: King Center Space Inventory

6. Auraria Classroom Spaces

Although presented here as a single location, the Auraria Classroom Spaces are actually a collection of spaces located in various buildings throughout campus. Like most other departments and colleges at UC Denver, the Business School teaches its courses in classrooms that are shared not only amongst UC Denver entities, but with Metropolitan State College of Denver (MSCD) and the Community College of Denver (CCD). During the fall semester of 2006, Business School courses were taught in five different buildings (North Classroom, Auraria Library, Plaza Building, Science Building, and the King Center) on the Auraria Campus in a total of 35 different classrooms. A full list of these classrooms and their utilization statistics are provided in Appendix B. The total square footage of these 35 classrooms is listed on the following page.

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Auraria Shared Classrooms	ASF	GSF
INSTRUCTIONAL	25,048	40,400
TOTAL	25,048	40,400

Table 8: Auraria Shared Classrooms Space Inventory

7. Space Totals

The space inventories from all of these locations have been totaled below. This chart represents the total space presently occupied or used by the UC Denver Business School.

Business School and D2/ Affiliates Total	ASF	GSF
OFFICE	16,177	26,092
INSTRUCTIONAL	29,327	47,302
OTHER	498	803
<i>Business School Subtotal</i>	<i>46,002</i>	<i>74,197</i>
OFFICE	4,795	7,733
INSTRUCTIONAL	3,791	6,115
OTHER	2,235	3,605
<i>D2/Affiliates Subtotal</i>	<i>10,821</i>	<i>17,452</i>
TOTAL	56,823	91,649

Table 9: Total Business School and D2/Affiliates Space Inventory

For the sake of comparison, a summary chart of total existing space *by standard* is provided below. Existing Space (Above: Table 9) shows an inventory of *actual* space occupied and used by the Business School and its affiliates. By comparison, Existing Space by Standard (Table 10- following page) shows the amount of space that would be allotted to the Business School and its affiliates if you took the roster and credit hour production and multiplied that by office, instructional and other applicable space standards.

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Business School and D2/ Affiliates Total	ASF	GSF
OFFICE	14,508	23,400
INSTRUCTIONAL	15,079	24,321
OTHER	0	0
<i>Business School Subtotal</i>	<i>29,587</i>	<i>47,721</i>
OFFICE	1,355	2,185
INSTRUCTIONAL	6,573	10,602
OTHER	6,230	10,048
<i>D2/Affiliates Subtotal</i>	<i>14,158</i>	<i>22,835</i>
TOTAL	43,745	70,556

Table 10: Total Business School and D2/Affiliates Space Inventory By Standard

This comparison is useful because it provides a better benchmark for current instructional square footage need. Due to the shared nature of Auraria classrooms (where business is scheduled in many classrooms for sometimes very few hours per week), the actual existing square footage number for instructional space is abnormally high. Table 10 gives us a more realistic number for current instructional space need for the entire college and its D2 and affiliate programs.

iii. Assessment of Space Functionality

Adjacency Concerns

One of the principle drivers for the new Business School Building is the need and desire to bring the school together in a central location. The physically de-centralized model that exists detracts from the student, faculty and staff experience, places the college at a competitive disadvantage, and results in operational inefficiencies. Some specific examples of the harmful effects of the current space alignment are:

- There are currently 14 faculty members that are cut off from the daily life of the Business School because there are no offices for them in the CU-Denver Building.
- There are no opportunities for informal hallway discussions amongst faculty that often lead to productive research ideas.
- There is no space that allows students and faculty to gather informally.
- The lack of a centralized facility makes it very difficult to create a brand for the Business School.
- The current space alignment also makes it difficult to create cohesion amongst the faculty and staff.
- It is often necessary for faculty to travel long distances to teach their courses. This is especially difficult if it is necessary to carry presentation materials, test materials or equipment.

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- Staff face these same complications, often having to travel great distances to oversee lab operations or attend meetings.
- The D2 operations (11-month MBA, Bard Center for Entrepreneurship, Executive MBA) have little to no opportunity to interact with the rest of the college and in some cases, the rest of the institution. These students feel little connection to UC Denver, and in some cases do not have access to the resources on the Auraria Campus that most other UC Denver students do (library, recreation, student union building, and student services).
- Invited guests and members of the business community often have difficulty finding meeting and events locations.

Consolidation of the Business School into a central location will allow the following:

- Better linkage to the business community.
- A greater sense of belonging and collegiality.
- Opportunities for informal meetings, impromptu workshops that often lead to new research ideas.
- Opportunities to invite the Denver community into professional and attractive spaces through forums, meetings and informal events.
- A central location for all outreach efforts undertaken by the business school. Currently these events are spread between the Bard Center and the various locations on the Downtown Denver Campus.
- A venue for professional, continuing education course, which are not presently offered due to a lack of adequate facilities.
- A true home for students- a place that encourages people to come earlier, stay later and builds loyalty in undergraduate and graduate alumni. With the advent of campus housing at UC Denver and the focus on growing undergraduate enrollment, this will become even more critical in the future.

iv. Current Space Utilization by Classroom/Lab Hours of Use and Percent Station Utilization

The numbers below are a summary of the utilization of Auraria Classrooms by the Business School in the fall of 2006. (A more comprehensive chart of utilization by individual classroom is provided in Appendix B). In the fall of 2006, the Business School scheduled courses in 35 different Auraria classrooms.

TOTAL HOURS PER WEEK	490.6
AVG HRS PER CLASSROOM	14
OVERALL STATION UTILIZATION	61%

Table 11: Summary of Auraria Classroom Utilization (Fall 2006)

Several important points need to be made about this information. First, the Business School utilizes the classrooms on the Auraria Campus that are shared amongst UC Denver academic departments and between UC Denver, MSCD and CCD. While there is some consistency in the

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classrooms used by Business from semester to semester, there is also some variation. Therefore, there may be classrooms used by business in other semesters not included on this list. Conversely, some of the rooms on this list might not be used by business every semester.

The second critical point is that the sharing of classrooms effects classroom usage from a college standpoint. When rooms are shown as being occupied by business for less than 30 hours per week, it is important to note that this does not mean they are vacant for the remainder of the week. In fact, it is very likely that they are occupied for 40 hours per week or more. A study recently conducted showed an average utilization for Auraria Campus classrooms of 42.6 hours per week.

The other consideration is that the demand for classroom space and the complexity of scheduling for three institutions does not always result in the optimal pairing of course and classroom. Courses are often scheduled in classrooms that are larger (sometimes substantially) or smaller than the desired enrollment of the course. Therefore, low occupancy rates do not always indicate low course enrollment, but may also indicate an inefficient match between course attendees and classroom capacity.

v. Facilities Condition Index

Facility Condition Index (FCI) information is provided here for the CU-Denver Building only. A majority of the space occupied by the Business School and its affiliates is within this building. Of the other buildings occupied by the Business School, the Masonic Building (location of the Bard Center and 11-Month MBA program) is not a state owned facility and as described above, the locations of classrooms used by Business can vary from semester to semester.

A facilities audit conducted by the Facilities Operations Department of UC Denver in 2006 determined that the FCI of the CU-Denver Building is 55.9%. The most deficient system in the building was HVAC, which was found to have a deficiency rating of 26%. The report identified building structure as the least deficient system at 83%. The replacement value of the entire building was estimated at \$17,495,134.

The entire FCI report for the CU-Denver Building is included in this document as Appendix C.

vi. Specific Health/Life Safety Deficiencies

The facilities audit referenced above identified the following health and life safety deficiencies in the CU-Denver Building:

- An emergency power generator is needed to serve the fire pump and to power emergency lights, which are currently battery operated.
- The elevator recall system needs to be updated to allow greater control by fire personnel in the event of a fire.
- Improvements are needed to establish and maintain the integrity of refuge areas for use by building occupants in the event of a fire.

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b. Changes and Projections

i. Enrollment Projections by Program or Department

Business School

In 2005, the UC Denver Enrollment Projections Committee was charged with preparing detailed projections of main campus (D1) instructional activity from Fiscal Year 2006-07 through Fiscal Year 2011-12. Specifically, the group was asked to express the projections in terms of student credit hours, and to provide two scenarios- constrained and unconstrained. The constrained and unconstrained scenarios are described as follows:

Constrained: This projection estimates future program size based on current, known constraints on growth. These include but are not limited to funding issues, classroom availability, other program space concerns, and availability of funding.

Unconstrained: This projection captures potential growth based on known demand and assuming a modest but somewhat optimistic relaxation of current constraints (e.g. increases in program funding, availability of additional classroom space). This scenario may yield similar projections to the constrained scenario to the extent that few constraints exist for a given program.

In the case of the Business School, the five year and annual growth projections in the constrained and unconstrained scenarios were found to be the same.

From FY 2007 to FY 2012, enrollment and student credit hour production in the Business School is projected to grow 11%, or 2% annually during that period.

The table below is an update of Table 1 (Existing Enrollment- page 9), and shows projected Headcount, Credit Hours and Contact Hours in 2012 using the 2% annual growth factor.

	Undergraduate	Graduate	TOTAL
Headcount	1,534	1,147	2,681
Credit Hours	12,372	7,556	19,928
Contact Hours	10,857	5,881	16,738

Table 12: Projected Business School Enrollment (2012)

Table 13 on the following page shows projected *growth*, or the difference between existing enrollment and the 2012 enrollment projection above.

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	Undergraduate	Graduate	TOTAL
Headcount	152	114	266
Credit Hours	1,226	749	1,975
Contact Hours	1,076	583	1,659

Table 13: Projected Business School Enrollment Growth (2007-2012)

D2 and Affiliate Programs

The leaders of each of the D2 programs were asked to provide their goals for their respective programs over the next five year period.

1. 11-Month MBA

The five year goals of the 11-month MBA include the following:

- To acquire a separate facility or space dedicated specifically to the 11-Month MBA program. This space would include:
 - A Smart Classroom (perhaps two depending on demand)
 - Breakout Rooms and Conference Rooms
 - Staff Offices
- To grow the program significantly. This goal has been hampered by the current shared space arrangement. The 11-Month MBA currently shares space with the Bard Center for Entrepreneurship in the Masonic Building.

Long-Term goals are as follows:

- Increase alumni involvement, including endowing some portion of the program (as well as scholarships and special activities) through alumni gifts.
- Increased involvement from the business community through executive collaborations.

2. Bard Center

The five year goals of the Bard Center include the following:

- To continue to expand its current program of entrepreneurship course offerings.
- Double the amount of available incubator space.
- Grow the Venture Fund.
- New focus on bio-entrepreneurship including a new bio-entrepreneurship certificate program. Much of this will build from the Colorado Bioentrepreneurship Program – a fellowship program for Health Sciences Center PhDs and post-docs. Bioscience internships will expand for Bard Center students and the Bard Center will become the Colorado academic hub for Bioentrepreneurship.

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- New focus on Social Venturing. New courses in this area will be introduced to the Bard Center curriculum along with new means and methods of support for social ventures through incubation, funding, and networking.
- Create an endowed chair or dedicated faculty position in entrepreneurship.

Long-Term Goals are as follows:

- Establish an undergraduate certificate program to complement the existing graduate certificate program.
- Continued growth in the bioscience area with a focus on developing a new MBA degree in Bioscience Management.
- Continued growth in social venturing by building additional support for the creation of new ventures in social entrepreneurship and the non-profit areas.
- Establish a satellite location on the Anschutz Medical Campus in Aurora.

3. XMBA/XMHA

Unlike the Bard Center and 11-Month MBA programs, the XMBA and XMHA programs (known collectively as Executive Programs) have no plans to separate. Their collective five year needs are as follows:

Additional Square footage, including the following needs (this includes their current square footage):

- Two (2) fixed case rooms- capacity 60 each
- Five (5) break out rooms- capacity 10 each
- One (1) large meeting room
- One (1) kitchen- small- prep only
- One (1) reception area
- Access to loading dock
- Outdoor area
- One (1) Secure room for files
- One (1) Copy room
- Storage
- Add one (1) faculty office in addition to the one they already have

In addition, the XMHA program articulated the following specific Long-Term goals:

- Draw more out-of-state applicants
- Examine the feasibility of offering a doctoral degree in health administration delivered in the executive education format

ii. New or Modified Academic Programs/Instructional Methodology

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Trends That Impact Business Schools

Four trends will drive the new economy and have major implications for business schools: [1] the globally interdependent economy; [2] the new information technologies; [3] managing for sustainability; and [4] the importance of innovation and entrepreneurship.

Globally Interdependent Economy

Global interdependence is just that- linking every place in the world. Technologies have collapsed the traditional barriers of time and space, enabling direct access to global markets. The global infrastructure depends on telecom, IT, fiber optics and satellite technologies, many of which were developed in Colorado. These technologies are the enabling forces of globalization and are critical to Colorado's future.

Colorado has identified key industry clusters that will lead the state's participation in the global economy: bioscience, energy, financial services, and information technology-software. The clusters were based on an analysis of industries where there is a clear competitive advantage in the region including potential employees, investment dollars and growth opportunities. Colorado will become more networked with the world over time. The Business School will lead in the development of new initiatives in key industry clusters and will work in partnership with global players.

New Information Technologies

New technology means work will increasingly be done virtually, or in an asynchronous, geographically distributed manner. Current research suggests that many workers spend 40% of their work time at their office, 30% of their work time at home and 30% of their work time in "third places"--client offices, hotels, airports, restaurants and cafes.

The implication is that students should learn how to design and manage distributed work and lead change in organizations to adapt to this trend. It also implies education needs to be delivered in a flexible, virtual manner, and business school facilities must support collaboration, innovation and problem solving, wherever it may occur. The Business School offer excellent online courses in business and will continue to innovate and enhance the programs with the best use of technology. In addition, using the very successful model of the Executive Health Administration program, the Business School will develop new programs that will allow students to learn from outstanding faculty wherever students go to work. The new Business School building will use the best practices of industry with technology to support work and learning.

Managing for Sustainability

With the 2005 Millennium Ecosystem Report finding that 60 percent of the Earth's ecosystems are not sustainable, the need for businesses to manage for sustainability is widely accepted. Sustainability Management recognizes the business case for practices that protect natural resources environment, and positions companies to take advantage of emerging opportunities to

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develop new products and services that reduce carbon emissions and other harmful impacts. Managing for sustainability is also a key concern in business education. As businesses and governments statewide, nationwide and internationally have developed sustainable management initiatives, there is a growing demand for professionals to implement these initiatives.

The Business School has taken a lead in developing a Management for Sustainability emphasis for its Master's in Management and MBA students, offering courses in Managing for Sustainability, Business and the Natural Environment, Accounting and Finance for Environmental Issues, Social Marketing, and Social Entrepreneurship, and developing a course in Sustainable Supply-Chain Management. There is a pressing need for business research to improve sustainable management practices, including ways to account for the cost benefit of sustainable practices in capital budgeting decisions, ensure that practices truly reduce environmental problems, and manage the integrity of sustainable practices across a firm's supply chain.

Importance of Innovation and Entrepreneurship

In addressing how Americans can lead and prosper in a changing world, the Technology CEO Council outlined three structural trends that will impact the economy of the future:

The geopolitical trend recognizes 3 billion residents of nations like China, India and Russia are rapidly integrating into the global economy. These citizens are smart, hard working and will be customers, partners, colleagues and competitors.

The technology trend shows almost any job can be done from anywhere with high quality global communications.

The hyper competition trend among firms in the global marketplace requires that companies constantly improve or reinvent themselves and their products.

This is a very different world than our parents or grandparents entered. Today's graduate will face far more competition, in addition to having more customers, collaborators and global partners. It is a world that will demand agility, innovation and entrepreneurship. The Bard Center for Entrepreneurship cultivates and will expand its programs to undergraduates and non-business majors. In addition, the Business Plan Competition will be extended to an Idea Competition to engage students from other disciplines like engineering and arts and media. Innovation and entrepreneurship are the business of the Bard Center and are fundamental values in the culture of the Business School.

Accreditation Recommendations

During the most recent accreditation visit of the Association to Advance Collegiate Schools of Business (AACSB) in 2006, the following recommendations and observations were made:

- The accreditation team noted the need for a new facility, one that could prepare students for the rapidly changing business climate. They specifically noted a need for more large classrooms and specialized spaces such as discussion rooms, team meeting rooms, and others which are discussed later in this document.

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- The team noted a current shortage of tenure-track faculty, specifically at the undergraduate level where the coverage is currently below average.

New Academic Programs

The Business School is launching programs in three interdisciplinary areas rooted in industry trends and local industry clusters. These programs are ***Bioentrepreneurship, Global Energy Management, and Sports and Entertainment Management***. These areas will be founded on the strength of existing and new faculty, and represent an opportunity for national and global leadership for UC Denver. Each area will facilitate interdisciplinary research and provide experiential learning opportunities for students. The new Business School facility will play a critical role in the success of these programs by providing the space that will allow these programs to succeed. A description of each of these new programs is below.

The Bioentrepreneurship Program Initiative

The Bioentrepreneurship Program Initiative will be a collaboration with the Anschutz Medical Campus of UC Denver (AMC), the associated Colorado Science and Technology Park at Fitzsimons, CU Technology Transfer Office and companies in the Colorado Bioscience Association. The AMC generates \$363 million in external grant support for basic, clinical and translational research. It is the largest world-class academic health center between Chicago, Texas and the West. The Anschutz Medical Campus and affiliates have benefited from \$2 billion in investments to date and will ultimately attract more than \$4 billion in facility-related funds.

Elements of the Bioentrepreneurship program include:

- Courses taught for UC Denver and Anschutz Medical Campus (AMC) students. A certificate of Bioscience and Entrepreneurship will be offered in 2007-2008 and eventually an MBA track in Bioscience and Entrepreneurship.
- A special prize category in bioscience at the annual Bard Center Business Plan Competition. Preceding the annual competition will be an “idea competition” focusing on the AMC and Bioscience opportunities
- The housing of bioscience start-up companies in the Bard Center incubator space
- A bioscience post-doc program for PhD. Scientists
- The inclusion of six representatives from bioscience and medical device companies on the Business School Advisory Board.

The Global Energy Management Program Initiative

The Global Energy Management Program Initiative will be a collaboration between the energy industry and the Business School that will meet the need in the energy industry for leadership and management talent. The program will focus both on renewable energy sources (wind, solar, biofuel, etc) and non-renewable energy sources. Denver is uniquely positioned to be a leader in industry trend of renewable energy and sustainable building. The National Renewable Energy Lab is in Golden and the regional Environmental Protection Agency office is in Denver. Denver is a major energy hub for U.S., Canadian, and global energy companies. In collaboration with

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energy companies, the Business School will launch a series of graduate energy courses, beginning with “Accounting for the Oil and Gas Industry” in the fall of 2007. The Business School will then offer short courses such as “Introduction to the Oil and Gas Industry” and “Introduction to the Renewable Energy Industry” in the Spring of 2008. An MS in Global Energy Management, designed to educate the next generation of leaders in the energy industry, will begin being offered in the Summer of 2008. The curriculum will include topics in energy, the environment, alternative energy and corporate and social responsibility. The Business School will offer joint degrees with major engineering schools in Colorado in the Fall of 2008.

The Sports and Entertainment Management Program Initiative

The Sports and Entertainment Management Program Initiative will develop leaders who will drive business excellence in the sports and entertainment industries. The initiative will feature an MBA track in Sports and Entertainment Management, which will include four core classes: Management and Law, Contracts and Negotiation, Marketing, and Finance. The program will bring together people who love sports, have a passion for the arts and are very good at the business practices associated with each. The program has an advisory council of 20 top executives who will advise on the curriculum, offer internships and connections and support fundraising efforts. The program will provide a comprehensive business case, cover industry dynamics in core disciplines and maintain a special focus on real estate development, new media, and the convergence of sports and entertainment. Denver is the nation’s top sports city based on the number of professional teams, quality of the facilities, and per capita attendance. The Business School will be in the heart of the sports and entertainment complex: five venues are located within a one mile radius.

The program goals for the first five years are to:

- *establish the MBA track*
- *launch an Undergraduate emphasis, maintaining strong revenue-generating executive short programs*
- *launch a dedicated MBA in Sports and Entertainment Management.*

The Long-Term program goals are:

- *Achieve a top five national ranking for all three programs (Undergraduate, Graduate and Executive)*
- *Create a powerful alumni network that keeps the program cutting edge.*

c. Total Space Requirements

i. Planned Program Space Utilization

In summary, the total space requirements for the Business School can be attributed to these core areas:

- *Growth in Enrollment*

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As shown in the enrollment projections (11% over the next five years), the Business School is projected to grow. This will drive an additional need for office, instructional and other spaces. There are no opportunities for growth in the spaces currently occupied by Business.

- *Consolidation of the Business School*

Consolidation of the Business School into a central location is critical to its future success and will improve the student, faculty and business community experience dramatically.

- *Growth in D2 and affiliate Programs*

In addition to the growth in the core Business School programs, the D2 and other affiliate programs are growing to meet the demands of those seeking non-traditional instructional formats.

- *New Academic Programs*

The three new programs being launched by the Business School will require space to operate in the new Business School.

- *The Need for Dedicated Academic Spaces*

The new Business School will feature instructional spaces designed for the specific needs of Business Education, and will allow for informal interaction when classes are not in session. At present, there are no spaces available to Business School students to allow for and encourage such interaction.

- *Specialty Spaces*

Specialty spaces are critical to the function of the Business School and are very identifiable to students, the business community and donors. These are spaces that are unique to schools of business, such as a trading room, or an executive case study room. None of these specialty spaces are available to the Business School at the moment.

ii. Space Planning Assumptions

The program for the occupancy of 1475 Lawrence Street by the Business School is based on the following assumptions:

1. The baseline data used to project office and instructional space in the program is Existing Space by Standard, NOT actual existing space. Existing Space by Standard reflects the square footage that would be allotted if each space were built to the campus standard for that space type (ex. current office space allotment is calculated by taking the number of office staff and multiplying by the campus office standard of 120 assignable square feet, rather than taking the actual office space occupied by that group).

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2. To reflect existing shortages of space, two adjustments were made to the Existing Space by Standard (ESS) total for the Business School prior to applying the growth factor. The first change is that 17 FTE faculty have been added to the ESS to reflect the current shortage of full-time tenured faculty as per accreditation standards. Secondly, four FTE staff offices have been added to the ESS to reflect the current shortage of staff in the undergraduate and graduate advising areas.
3. The overall space need was then calculated by applying the 2% annual growth number to the baseline data. The growth percentages are applied in the following manner:
 - o With office space, the growth factors are applied to the staff *numbers*, and rounded off.
 - o With instructional space, the growth factors are applied to the assignable square footage numbers.
 - o The spaces listed as *other* are those which are not driven directly by program growth, and are thus projected using qualitative data or by assuming a baseline need. They represent spaces required in a business education environment and in some cases required in any office environment. *Note: Many of these needs were taken directly from an earlier program exercise conducted by RNL Design, and last updated in June of 2006. The remaining spaces in this category were derived from meetings with Business administrators, staff and faculty.*
4. Instructional square footage is based on contact hour production. One assignable square foot of instructional space is allotted for every Contact Hour, or Student Station Period Occupied (SSPO). The contact hour number used is 16,738. (taken from Table 12, Page 18)
5. The Business School will continue to use King Center 113 and 205 and other various Auraria Campus classrooms to teach *undergraduate* business courses. This is convenient for the undergraduate students, as they take their general education course on the main Auraria campus.
6. The program and floor plans shown in this program plan revision do not account for any changes to the restroom facilities, elevators or other building components that may be necessary due to a change in use from general office to more intensive academic use.

iii. Total Space Requirement

Table 14, shown on the following two pages, shows the total space requirement for the Business School by organizational group and space type.

**University of Colorado Denver
Business School Program Plan**

	ASF Subtotal	#	ASF
SCHOOL OF BUSINESS			
Office	24,215		
Dean		1	270
Associate Dean		2	360
Assistant Dean		1	180
Dean's Assistant		2	160
Waiting		1	60
Reception		1	270
Tenure/Tenure Track Faculty & Prof/Technical		77	12,620
Industry Initiatives		4	
Office Support		1	512
Budget & HR		4	608
Part Time Faculty		1	480
Instructor		21	3,400
Advising		8	1,144
Advising Reception		1	180
IT Office		2	286
Student Study		1	1,432
Circulation		1	2,253
Instructional Space	14,488		
25 seat Seminar		6	4,562
45 seat Discussion Classroom		7	8,246
60 seat Discussion Classroom		1	1,680
Other	15,289		
Breakout Rooms - 16		7	2,626
Breakout Rooms - 10		4	1,064
Trading Room		1	1,900
Faculty/Staff Interaction Space		1	0
Student Lounge		2	0
Informal Interaction Spaces		6	0
Eating Commons		1	1,088
Catering Kitchen		1	432
Library		1	500
Grad Student Lounge		1	432
Staff Lounge/Break Room		1	432
30 Seat Conference Room		1	900
20 Seat Conference Room		1	462
Computer Lab		1	700
Server Room		1	200
Entry Lobby		1	1,200
Showers		2	200
IT Equipment/Storage		1	230
Program Office Reception		1	240
Storage Room		3	715
File Room		1	288
File Room - Budget & HR		1	144
Career Center Office		1	624
Admissions/Records Office		1	384
Supply Room		1	528

	ASF Subtotal	#	ASF
SCHOOL OF BUSINESS Total			53,992
D2 PROGRAMS			
Bard Center			
Offices	1,215		
Program Director		1	195
Professional/Technical		4	600
Reception		1	420
Instructional Space	2,442		
50 Seat Classroom		1	1,508
Computer Lab		1	234
Group Study Area		1	700
Incubator	2,500		2,500
Other	522		
Copy Room		1	130
Break Room		1	
Storage		1	112
Conference Room 10		1	280
Bard Center Total			6,679
11 Month MBA			
Offices	938		
Program Director		1	308
Professional/Technical		4	630
Instructional Space	1,790		
50 Seat Classroom		1	1,050
Computer Lab		1	240
Group Study Area		1	500
Other	264		
Storage		1	264
11 Month MBA Total			2,992
International Business			1,228
First Floor (Future Development Area)			7,028
TOTAL ASF			71,919

Table 14: Business School Space Program

iv. Specialized Space Requirement

Trading Room

The first trading room was built in the Sloan School of Management at MIT in 1996. Now, more than 60 business schools nationwide feature trading rooms. The educational benefits of trading rooms are many, and include: Giving students a glimpse at what a trading environment entails, allowing students to learn specialized trading software, and providing a base of operations for student-managed funds and faculty research. Trading Rooms typically feature multiple projection screens, access to the latest in communication technology and special trading software. A picture of a trading room is provided below.



Figure 2: Trading Room

Breakout Room

Breakout rooms are rooms designated for individual groups or for small meetings. Each room would feature a wallboard for writing, a computer terminal for access to the internet, and a central table and chairs to facilitate discussion. A picture of a breakout room is provided below.



Figure 3: Breakout Room

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Executive Case Study

Executive Case Study Rooms are commonly used for lecture, community events and other group gatherings. They typically seat 100 executives/students, and feature computer access at each station, and dual projection that can be either synchronized or driven by separate output devices. An Executive Case Study Room is pictured below.



Figure 4: Executive Case Study Room

v. Alternate Scenarios

Several development scenarios were considered for the Business School. Those that were considered and rejected are described below.

Leasehold Relationship- Existing Structure

One possibility that was considered for the Business School was to lease all of or some portion of an existing building. The university would enter into a lease agreement for the space, with the renovation of the space funded up front in gift money or financed into the terms of the lease and amortized over the period of the lease. General operating funds or gift funds would have to be identified to cover the ongoing occupancy costs. Depending on the length of the lease commitment and the building, it may be possible to negotiate the right to name the building or some portion of the building. The naming rights for interior spaces might also be negotiated into the lease agreement.

Positives:

- Less up front cost
- Faster Timeline (assuming space could be identified quickly)

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Negatives:

- No equity position
- Less Control over operation of the facility.
- Could lose opportunity to make a statement with the Building- Naming and branding opportunities could be reduced or altogether lost.
- Challenge of finding a building close to the campus with the necessary gross square feet available. (In a study conducted by Frederick Ross Company in 2006, four Class A buildings were presented as options for the Business School. None of these had enough vacant space to accommodate the full program for the Business School)

Leasehold Relationship- New Build

Another possibility that was considered was to lease all of or some portion of a newly constructed or soon to be constructed building. The arrangement would be the same as that of leasing space in an existing building. Given the many developments underway downtown or in the early planning stages, leasing part of a new or yet to be constructed facility might give the university a better chance at acquiring a sufficient quantity of space and would give the university more flexibility and input on the design of the space.

Positives:

- Less up front cost
- Faster Timeline (depending on availability and construction schedules).

Negatives:

- No equity position
- Less Control over operation of the facility
- Could lose opportunity to make a statement with the Building- Naming and branding opportunities could be reduced or altogether lost.
- Challenge of finding a building close to the campus with the necessary gross square feet available.

Construction of A New Facility

The third possibility that was considered by the university for the Business School was to construct a new facility on a vacant or partially developed site.

Positives:

- Possible equity position in the building (off-campus) or no ongoing lease or controlled maintenance costs (on-campus)
- Can be “built to suit” exactly as specified by the Business School.

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Negatives:

- Challenge of finding a site that met all of the site criteria and could be attained for a reasonable price.
- More time consuming than lease options or renovation options

Status Quo

The fourth option that was considered and rejected is for the Business School to continue to operate in its existing spaces. To summarize, the detrimental aspects of this option include:

- The current model of operating in many different locations is a competitive disadvantage for the Business School. It makes it difficult to establish an identity for the college, leads to difficulties in establishing brand loyalty, and is detrimental to the learning experience of the students. .
- There is no room at all for growth in any of the spaces occupied by Business, so the college could not grow and could not launch any of the new programs.
- Business would continue to have to adapt their instructional methodology to match the classrooms they are given, rather than the other way around as is the customary practice.

III. Implementation and Design Criteria

a. Spatial Relationships

General Alignment

Figure 5 below provides a summary of where the various Business School functions are projected to go in the Lawrence Court Building. As noted previously, the two first floor suites are occupied by tenants that do not vacate until 2010 and 2015 respectively. Executive Programs will occupy the first floor suites after the existing tenants vacate.

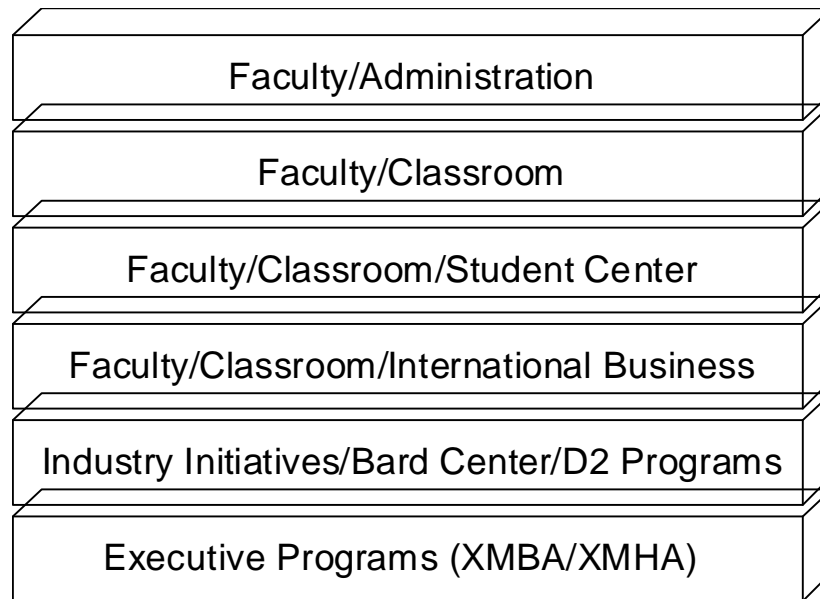
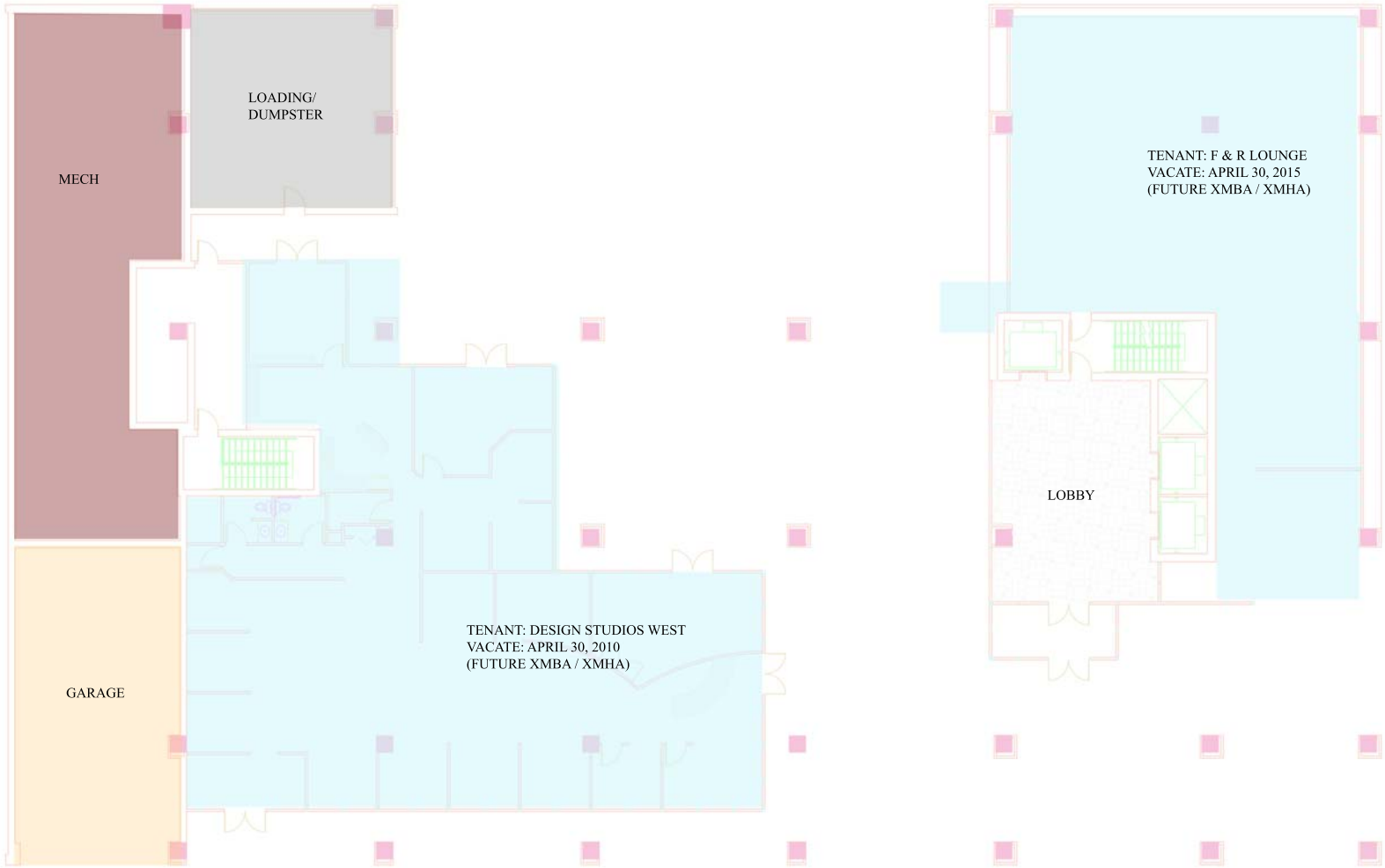


Figure 5: Business School Program Alignment

On the pages that follow, Figure 6 through Figure 11 provide more detail of how each of the floors in the building are programmed.



1st Floor
 1475 Lawrence Street
 Stacking Plan
 2.7.08

Figure 6: Floor 1



2nd Floor
 1475 Lawrence Street
 Stacking Plan
 2.13.08



3rd Floor
 1475 Lawrence Street
 Stacking Plan
 2.13.08

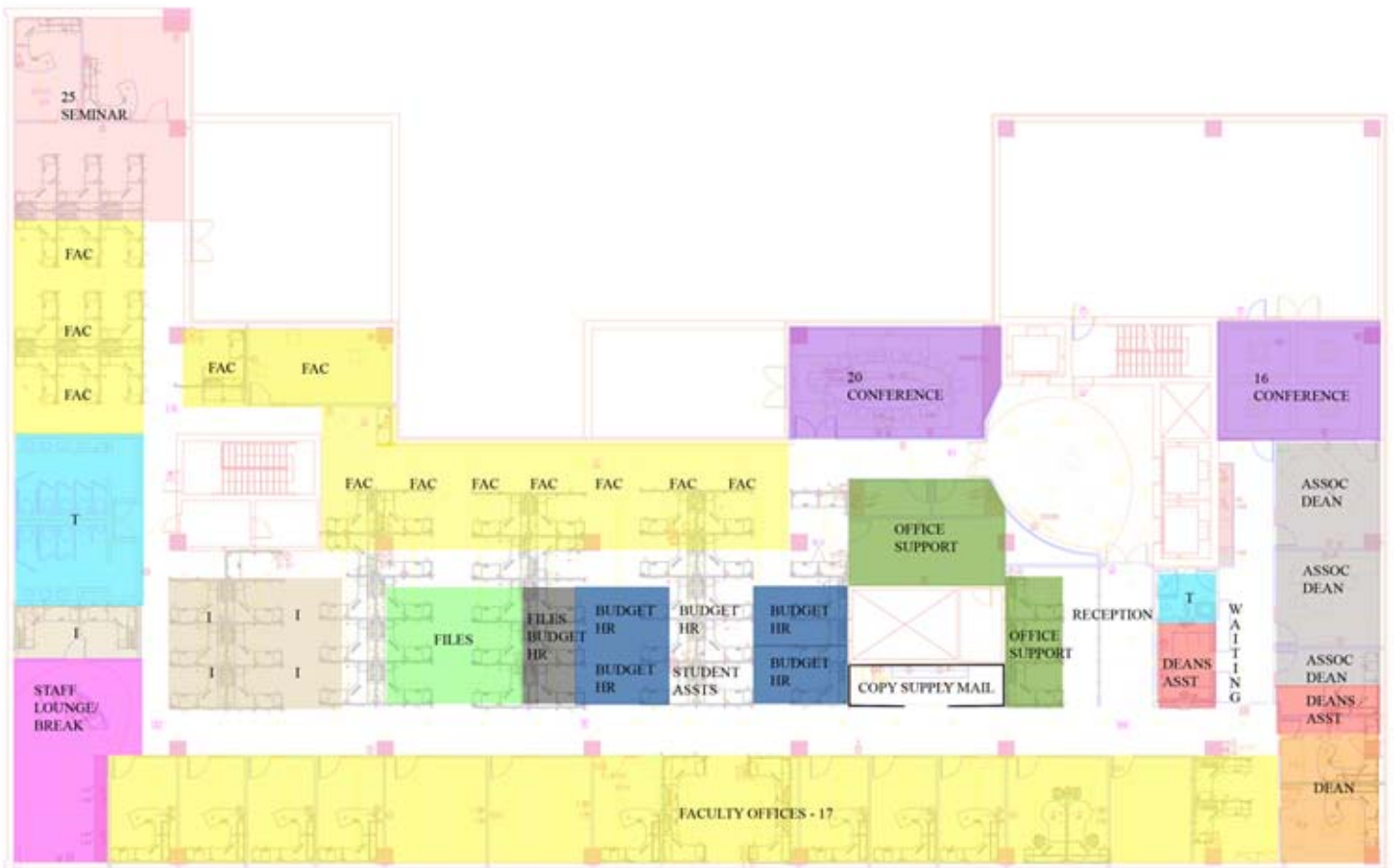
Figure 8: Floor 3



4th Floor
 1475 Lawrence Street
 Stacking Plan
 2.13.08



5th Floor
 1475 Lawrence Street
 Stacking Plan
 2.13.08



6th Floor
 1475 Lawrence Street
 Stacking Plan
 2.13.08

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b. Site Improvements and Requirements

i. Site Requirements and Vision

Site Requirements

The *Business School Building Initiative Committee (BSBIC)*, formed in 2007 to solicit input on the Business School Building from faculty, the CU Foundation and the external design and development communities, established the following criteria for a site for the Business School:

- It must be within the Denver Central Business District or easily accessible to the downtown Denver Business community.
- It must be within a 15 minute walking radius of the UC Denver downtown campus.
- It must occupy a position of high visibility from Speer Boulevard (or some other major roadway), or the downtown community.
- It must allow the Business School to create a space that is distinct and easily recognizable.
- It must be able to accommodate the entire Business School and its affiliated programs.
- The site and related development proposal should respect and relate to the many planning initiatives occurring in Downtown Denver including those recommended in the Downtown Area Plan.

Vision

The vision for the Business School Building is that it will provide an opportunity to develop even stronger ties with the Denver business community, students and alumni due to its location and design. The facility will also be a model of sustainability.

ii. Site Selected

The site that is being presented for the Business School is the Lawrence Court Office Building, located at 1475 Lawrence Street in downtown Denver. The location of Lawrence Court and areas of interest that surround the property are shown on Figure 12 on the following page.

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Site Characteristics

The Lawrence Court site was chosen for the following reasons:

1. The Site Satisfies All of the Site Criteria Established by the BSBIC

The Lawrence Court site satisfies all of the site criteria established by the BSBIC (See Site Requirements- page 40).

2. The Site Reinforces a Major Campus Gateway and Axis

One of the most well defined axes of the Auraria Campus is Lawrence Street. Lawrence Street dead ends at the eastern edge campus where it becomes Lawrence Way, the main pedestrian spine of the campus. UC Denver already owns and occupies two properties that frame the 1400 block of Lawrence, one block from the campus. Acquiring 1475 Lawrence will extend the reach of UC Denver further into downtown and strengthen the Lawrence Street axis.

3. The Site is Close to the Resurging 14th Street Corridor

The site lies in the heart of one of the fastest growing sub areas of downtown- the 14th Street Corridor. Two projects that are currently underway (The Four Seasons Hotel and Residences and the Great Gulf Residences), are within one block of the Lawrence Court site. Several more projects that are slated to be nearby are in the planning phases. In addition, portions of 14th Street near the Denver Performing Arts Center Complex have been designated as a theater district, and will be the recipient of new streetscape improvements. All of these projects and initiatives should have the net effect of shifting some of downtown Denver's activity to the area surrounding the Lawrence Court site and UC Denver's other buildings .

4. The Lawrence Court Site Features Fewer Uncertainties and is Less Expensive to Develop than the Other Sites That Were Considered

Two other sites were explored at length for the Business School- the CU-Denver Building annex site and the Lot R site on the main Auraria Campus. Ultimately, building on either of these sites would have been more time consuming and more expensive than the scenario being presented in this program plan revision.

More detail on these alternate sites is provided below in Section II.b.iii (following page).

5. The Site Supports Initiatives That Were Outlined in the 2007 Downtown Denver Area Plan

The City and County of Denver, Denver Civic Ventures and the Downtown Denver Partnership agreed to undertake a significant and comprehensive look at the downtown area and its direction for the next 20 years. The result is the Downtown Denver Area Plan- completed in 2007. Seven Transformative Projects were identified as the most critical steps to advance downtown Denver's

Program Plan for the Business School Building- Revision

development and enhance its livability and economic health. One of those transformative projects is termed “Connection to Auraria”, and the intent is to foster expanded physical and programmatic connections between the Auraria campus and downtown Denver. The Business School site helps achieve this transformative step by expanding the Auraria Campus further into downtown.

iii. Alternative Sites

Two other sites were explored at length for the Business School- the CU-Denver Building annex site and the Lot R site on the main Auraria Campus.

The CU-Denver Building annex site was rejected for several reasons. The first is that the potential floor plate of the annex site is very small, making it difficult to program academic space into the building without connecting to the existing tower. The second reason is the many uncertainties related to connecting to the existing tower (necessary to alleviate the first concern). The CU-Denver Building was built in 1976. Due to the age of the building, many of the mechanical systems of the building have or are beginning to exceed their useful life. Any connection to the tower would necessitate mechanical system upgrades, which would be very expensive.

The Lot R site was the site proposed in the original program plan submitted in October of 2007. The Lot R site presents a more complex development challenge than the Lawrence Court site, due to view plane restrictions that govern the vertical development of the Lot R site. Without any alteration of the existing view plane, any building built on the Lot R site would be restricted to 1-1/2 stories. Any attempt to move the site west to relax the height restrictions would be hampered by the recreation fields located in front of the Tivoli. Options are being explored for moving the recreation fields, but no solution has been proposed and it may be some time until that issue is resolved.

c. Building Information

NOTE: Much of the information provided in this section is taken directly from two due diligence reports conducted on the Lawrence Court Office Building. The first report is entitled “Property Condition Assessment: Lawrence Court Due Diligence Update” and is dated September of 2007 and was authored by Davis and Associates Architects for the building owner- Legacy Partners. The second report is entitled “Due Diligence Report for 1475 Lawrence, Denver, CO” and was commissioned by The Staubach Company and authored by RNL Design for UC Denver . Neither of these reports has been included in the appendix due to their size, but the RNL Design study is available at (http://www.uchsc.edu/instplan/1475_due_diligence).

The Lawrence Court Office Building was designed by W.C. Muchow and Partners, Inc. and constructed in 1982 by Al Cohen Construction Company. The building is located on a 25,000 square foot site and lies within a B5 zoning district.

Program Plan for the Business School Building- Revision

The building is a 6-story above grade office building over two levels of underground parking containing 100 spaces. The square footage is broken down as follows:

Building Gross	104,179
Mech. Penthouse	6,272
Parking Ramp	2,166
Parking Level 2	15,500
Parking Level 3	25,000
<hr/>	
Total Gross SF	153,117

i. Utilities/ Infrastructure

Electrical Distribution

Normal power to the building is provided by Xcel Energy. Xcel energy provides a (3) transformer distribution system to downtown Denver buildings for redundancy. (2) transformers are at all times operational, with (1) on standby. At the utility unit substation, there are relays to transfer the power load to another substation in the event of a power failure at the originating substation. This system is redundant and can limit power interruption to the building but cannot be considered an emergency power source.

Sewer – Sanitary and Storm

This building has both a 5-inch sanitary sewer line and a 10-inch storm water line, each of which is connected to the respective City of Denver systems. The storm drain is routed to the main storm sewer located under Lawrence Street, while the sanitary sewer is routed out the rear of the building into the alleyway and then out to the sanitary sewer under 15th Street.

ii. Parking/Transportation

Lawrence Court features 100 parking spaces located in two levels of underground parking. Vehicle access to the parking is located on the South (Lawrence Street side) of the building. From the interior of the building, all three elevators service both levels of underground parking.

iii. Building Systems

Structural

The building structure is a cast-in-place concrete frame supported by a drilled pier and grade beam foundation system. It is a six-story structure with a steel frame penthouse enclosing the mechanical equipment on the sixth story roof. The foundation drilled piers range from 36 to 54 inches in diameter, with 10 to 24 feet of penetration into firm bearing strata which is located just under the lower level of the garage. The lower parking level is concrete slab-on-grade and the upper level of the parking structure is a 9" concrete post-tensioned concrete flat plate slab. The 1st floor level is 12-inch concrete post-tensioned concrete slab designed for 100 psf live load.

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The upper building floors are 9" post-tensioned concrete slabs with a 50 psf live load, except for the 4th floor which is a 12" concrete post-tensioned slab designed for 125 psf.

Roofing

The roof is a proprietary IRMA system using a Hydrotech monolithic membrane installed directly to the structural concrete deck with rigid Styrofoam insulation, protection mat, and rock ballast on top. This includes the penthouse, cooling tower, and main roof sections. The terrace decks appear to be the Hydrotech monolithic membrane installed directly to the structural concrete deck with a secondary concrete slab and wood deck on top.

Heating/Cooling

Indoor climate control for the building is by a two duct (hot deck and cold deck) system. In the mechanical penthouse is two air handlers. One air handler is connected to only chilled water. This unit provides the cold deck supply air to the core of the building. Fresh air is introduced to the building through this unit. The hot deck unit supplies hot air to perimeter Trane VariTrane VAV boxes. The hot deck unit is also capable of providing additional cooling, as it is equipped with both a hot water and a chilled water coil. Return air for the building is by means of a plenum return through a central mechanical chase. Exhaust fans are constantly operated to ensure the proper amount of fresh air. Hot water is supplied from a hot water boiler. Chilled water is supplied from a 250 ton Trane centrifugal chiller. A Marley cooling tower located on the roof provides the heat rejection for the chiller. Exhaust fans on the roof provide for exhausting the restrooms on tenant floors.

Mechanical/Plumbing

A two-inch water service is tapped off of the six-inch fire line entering the building. The water service is located in the lower level parking area and is routed in a soffit that is heated and crosses the parking structure to the core of the building.

Electrical

The majority of the equipment was manufactured by Western Electric. The original main switchboard, MDC, was installed around 1981. MDC has a (5) integral service disconnects and one external fed from the bus, with the main bus section rated 2000A at 480Y/277V, and (3) sub-sections rated 1200A at 480Y/277V. The mechanical penthouse is fed from an 800A/3P service entrance disconnect in switchboard "MDC". The elevators and fire pump are fed from there own 3-pole disconnect switches located in switchboard "MDC". A 1200A/3P disconnect serves the general power and lighting requirements of all the floors except the mechanical penthouse. There is an addition 400A/3P service disconnect switch that feeds a 400A/3P, 480Y/277V panelboard in the existing test kitchen on the 5th floor. Transient voltage surge suppression does not exist on the main service disconnects.

There are (2) electrical closets on floors 2-6 at opposite ends of the building. 480Y/277V and 208Y/120V panelboards are located at every electrical closet. In many of the electrical closets,

Program Plan for the Business School Building- Revision

additional step-down transformers and 208Y/120V panelboards have been added to supply 120V loads.

Elevators

The building is equipped with three 350 fpm 3,500 lb. capacity geared traction passenger elevators, which serve all six floors and the two parking levels below grade. They were manufactured by the Dover Elevator company.

Fire and Life Safety

The building was originally designed and constructed under the Denver Building code which paralleled the 1974 Uniform Building Code at the time. The following are the assumed code classifications the building was designed and constructed under:

Occupancy B -1: Parking Garage
 B -2: Office

1 Hour Fire separation required between Garage and office

Construction Type	MPE II - FR
Building Area	153,117 GSF
Building Height	6 Stories
Sprinklers	Not provided
Structural Frame	2 Hours
Floor / Ceiling	1 Hour
Roof / Ceiling	1 Hour
Shaft Enclosures	2 Hours
Partitions	1 Hour
Commons	1 Hour

The stairway configuration in the building is based on a minimum separation of one half the maximum overall diagonal.

Fire suppression is supplied from a six-inch fire line tapped into the water main under Lawrence Street. At present the underground parking structures, first floor and the penthouse mechanical room is provided fire suppression with properly spaced fire sprinklers. Two four-inch fire risers are supplied by a 50 HP fire pump and pressure is maintained by a jockey pump. A dry branch line provides suppression for the underground parking structures. Fire extinguishers are installed in each standpipe cabinet on each floor. A new fire alarm system has recently been installed. The system installed is an Edwards EST 3 and is an addressable intelligent system.

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iv. Tenants

At present, there are three tenants in the building. They are listed below with the areas they occupy and their lease expiration dates:

Quiznos	Occupies Floors 2,4,5,and 6	Lease Expiration 11/30/2008
Design Studios West	Occupies Floor 1 Suite	Lease Expiration 04/30/2010
F & R Lounge	Occupies Floor 1 Restaurant Space	Lease Expiration 04/30/2015

v. Due Diligence Findings

RNL Design was hired to conduct a due diligence study on the Lawrence Court Office Building for UC Denver. The following suggestions in the report are being considered:

- Currently only the first floor, parking levels and mechanical penthouse are sprinkled. The report recommends that the remainder of the building be sprinkled.
- Replace the roof.
- Add one air handler for additional ventilation.
- Assess the size of ductwork for additional ventilation.
- Consider adding an external elevator/duct shaft large enough to accommodate two elevators and adding one additional elevator in this elevator/duct shaft.
- Add two ADA compliant bathrooms per floor.
- Create four handicap accessible parking stalls.
- Modernize the three existing elevators.
- Make Repairs to the Exterior Curtain Wall.
- Provide Localized Cooling in the Boiler Room.
- Repair and/or replace the cooling tower.
- Add an additional stairwell serving floors one through six.

vi. Architectural Design Features

The following should serve as the cornerstones of the design of the renovation of Lawrence Court for the Business School:

Professional Development and Alumni Center

This space or core area will cater to business professionals, students and alumni. The space should be attractive to local businesses, mentors and corporate recruiters. It should include well appointed interview rooms and feature the latest technology throughout. In addition to interview and recruitment activities, alumni will use this space to access services and network with students.

Program Plan for the Business School Building- Revision

Knowledge Center- A Market Place of Ideas

This is a place where business executives can come share their expertise with students and faculty. It is also a virtual place where new ideas from faculty research are posted and discussed. Business executives and alumni can subscribe to updates from the knowledge center on pressing topics in business like sustainability of products or health care benefits for employees.

Institutes, Centers and Programs of Excellence

The new building should create a hub for the D2 and affiliate programs of the School of Business, while making sure to integrate them within the fabric of the school as a whole. These programs include: The Bard Center for Entrepreneurship, the Accelerated 11 Month MBA, the Executive Health Administration MBA and the Executive MBA. The area should allow faculty, students and business executives to work together in a professional environment. It should allow the Business School to host seminars featuring visiting business executives speaking on topics of importance to the community. The design should allow sharing of amenities such as study areas, lounges and kitchens. It should also allow dedicated space for team projects and other group study activities.

Unique Spaces for Key Industry Clusters

The new Bioentrepreneurship, Global Energy Management, and Sports and Entertainment Management programs must have spaces for their programs. These spaces should reflect the individuality of the programs as well as their collective entrepreneurial spirit.

Technology Supporting Learning

The new facility must accommodate dramatic changes in how students will learn and how faculty will teach. In the future, time will be at an ever greater premium. Learning collaborators will be global, and learning occasions will increasingly emerge spontaneously, often student driven. Digital learning resources will be massive and learning environments will be increasingly interactive, experiential, and immersive, connect physical and virtual worlds and be available to mobile participants wherever they are, whenever they need them. Space must be more than just flexible, it must enable learning environments to emerge in the moment wherever a learning need or opportunity presents itself with ubiquitous access to high bandwidth worldwide, connectivity, high speed wireless access to everything, high definition image projection, tele-presence video conferencing to include remote participants, and all easily available to students as well as the faculty who mentor them.

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d. Project Schedule, Cost Estimates and Financial Analysis

i. Project Schedule and Phasing

Schedule

The following schedule is projected for the purchase and renovation of Lawrence Court for the Business School

Purchase of Lawrence Court	July 2008
Design	April 2008- December 2008
Construction	December 2008- December 2009
Occupancy	January 2010 (prior to start of spring semester)

These dates assume that all tenants vacate as scheduled and that adequate donor funds are available when they are needed to fund the various phases.

Phasing

When the buildings largest tenant, Quiznos, vacates in December of 2008, construction will begin on floors 2-6. These floors will then be occupied at the same time, prior to the start of the spring 2010 semester.

The first floor will be partially vacated in April of 2010, with the remainder being vacated in April of 2015. A feasibility study will be conducted in the future to determine if Executive Programs can operate for some interim period (2010-2015 assuming that all tenants stay until their lease expiration date) in part of the first floor until all of the first floor becomes available. Until then, Executive Programs will remain in the CU-Denver Building and the first floor space will remain earmarked for their use.

One opportunity for future expansion was discussed during the due diligence period. The opportunity exists to enlarge the footprint of the building by expanding into the courtyard. This expansion could include space for an events center and several executive case study rooms enclosed within a three story addition. This expansion, however, is not part of this program and is not necessary to meet the Business School's program needs.

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ii. Cost Estimates

Table 15 on the following page shows the estimated cost for the Business School Project by year and by funding source. The purchase of the building will cost \$24,550,000. The renovation is estimated to cost an additional \$15,000,000 for a project total of \$39,550,000.

The \$15,000,000 estimate for renovation costs assumes that the project schedule will proceed as anticipated.

iii. Financing Explanation

The funding for this project will come from two sources. The \$24,550,000 purchase of the building will be funded via a 25 year bond financing. Annual debt service on the debt is estimated at \$1,732,000 and will be funded from the campuses unrestricted fund.

The \$15,000,000 in renovation costs for the building will be funded with gift funds raised by the Business School. The School is just beginning to launch its fundraising campaign for the renovation, so gift balances are minimal at this juncture.

		Total Project Costs	FY 2008-09	FY 2009-10	FY 2010-11
Land Acquisition					
Land Purchase Cost		\$ 24,550,000	\$ 24,550,000	\$ -	\$ -
Professional Services					
Master Plan/PP		\$ -	\$ -	\$ -	\$ -
Site Surveys, Investigations, Reports		\$ 50,000	\$ 50,000	\$ -	\$ -
Architectural/Engineering/Basic Services		\$ 920,188	\$ 920,188	\$ -	\$ -
Code Review/Inspection		\$ -	\$ -	\$ -	\$ -
Construction Management		\$ -	\$ -	\$ -	\$ -
Advertisements		\$ -	\$ -	\$ -	\$ -
Other (LEED Consulting)		\$ 115,023	\$ 115,023	\$ -	\$ -
Total Professional Services		\$ 1,085,211	\$ 1,085,211	\$ -	\$ -
Construction					
Infrastructure		\$ -	\$ -	\$ -	\$ -
(a) Service/Utilities		\$ 100,000	\$ 100,000	\$ -	\$ -
(b) Site Improvements		\$ -	\$ -	\$ -	\$ -
Structure/Systems/Components					
(a) New (GSF): 0		\$ -	\$ -	\$ -	\$ -
New \$0/GSF					
(b) Renovate GSF:104,179		\$ 7,415,334	\$ 7,415,334	\$ -	\$ -
Renovate \$ 71.18 /GSF					
Other (Specify): Asbestos		\$ 152,896	\$ 152,896	\$ -	\$ -
High Performance Certification Program		\$ -	\$ -	\$ -	\$ -
Total Construction Costs		\$ 7,668,230	\$ 7,668,230	\$ -	\$ -
Equip. and Furnishings					
Equipment		\$ 1,500,000	\$ 1,500,000	\$ -	\$ -
Furnishings		\$ 2,429,922	\$ 2,429,922	\$ -	\$ -
Communications		\$ 750,000	\$ 750,000	\$ -	\$ -
Total Equip. and Furnishings Cost		\$ 4,679,922	\$ 4,679,922	\$ -	\$ -
Miscellaneous					
Art in Public Places =1% of Total Construction Costs		\$ -	\$ -	\$ -	\$ -
Relocation Costs		\$ 200,000	\$ 200,000	\$ -	\$ -
Other Costs (AD Costs)		\$ 3,001	\$ 3,001	\$ -	\$ -
Total Misc. Costs		\$ 203,001	\$ 203,001	\$ -	\$ -
Total Project Costs		\$ 13,636,364	\$ 13,636,364	\$ -	\$ -
Project Contingency					
5% for New				\$ -	\$ -
10% for Renovation		\$ 1,363,636	\$ 1,363,636	\$ -	\$ -
Total Contingency Requested		\$ 1,363,636	\$ 1,363,636	\$ -	\$ -
Total Budget Request [A(1)+B(8)+C(4)+D(4)+E(4)+F(3)]		\$ 39,550,000	\$ 39,550,000	\$ -	\$ -
Source of Funds					
CCFE		\$ -	\$ -	\$ -	\$ -
CF		\$ -	\$ -	\$ -	\$ -
CFE		\$ 39,550,000	\$ 39,550,000	\$ -	\$ -
FF		\$ -	\$ -	\$ -	\$ -

Table 15: Business School Project Costs

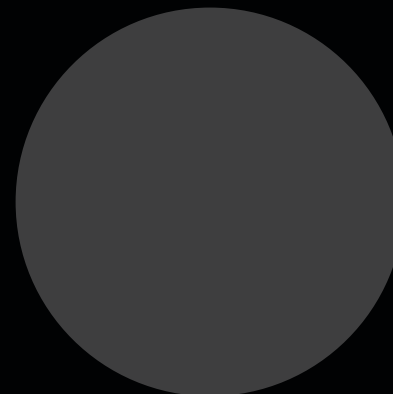
IV. Appendices

- A. Business School View Book
- B. Classroom Utilization by Room
- C. CU-Denver Building Facilities Audit

University of Colorado Denver

Program Plan for the Business School Building- Revision

APPENDIX A: BUSINESS SCHOOL VIEW BOOK



education to business

BUSINESS SCHOOL

UNIVERSITY OF COLORADO AT DENVER
AND HEALTH SCIENCES CENTER

1250 14th Street, Second Floor
Denver, Colorado

MAILING ADDRESS
Campus Box 165
P.O. Box 173364
Denver, CO 80217-3364

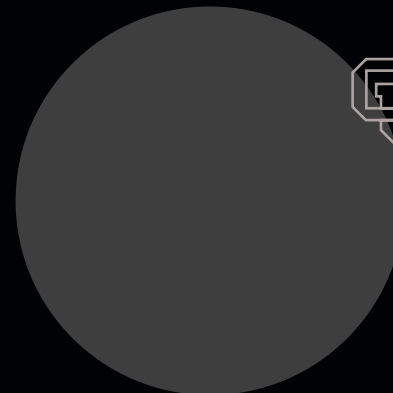
Telephone 303-556-5900
Fax 303-556-5904

www.cudenver.edu/business

BUSINESS SCHOOL

UNIVERSITY OF COLORADO AT DENVER
AND HEALTH SCIENCES CENTER

www.cudenver.edu/business





As the Business School looks to the future, its commitment remains strong for providing a world-class business education. Helping prepare students for tomorrow's business environment is a critical role and they are succeeding through a vibrant collaboration between top-notch faculty, bright students, committed alumni and engaged trustees.

Bill Easter, Business School Board Member
Chairman, President & CEO, Duke Energy Field Services



THE FIRST CHOICE of Business Professionals

In today's highly competitive business environment, those with the right knowledge have access to a world of opportunities. The Business School at the University of Colorado at Denver and Health Sciences Center (UCDHSC), with Colorado's largest MBA program, is the school many people turn to for the advantages they seek to get ahead in their business careers.

We provide a variety of AACSB accredited degree programs for both undergraduate and graduate students. Each offers a challenging curriculum designed in close partnership with an advisory board composed of top local, regional and national business leaders, and taught by professional educators with real-world business experience. Students benefit from a blend of classroom learning and field projects which work together to create an advanced business education with the perfect balance of theory and practice. And what better place to learn than in downtown Denver, the center of business in the Rocky Mountain region.

Through flexible course and scheduling options, undergraduate and graduate students can build the ideal way to further their own education. Daytime, evening and online programs can be pursued full-time or can be tailored for the busy schedules of working professionals. Those looking for a fast track can take

advantage of the 11-Month MBA program, which provides an intense, full-time option during the day. In addition to the general management expertise the MBA programs provide, a range of Master of Science programs are available to those looking for more in-depth fields of study in a particular business discipline.

The Business School also provides a number of specialized resource centers to equip students for business in a changing world. The Bard Center for Entrepreneurship furnishes specialized coursework and operates an incubator and venture fund for students wishing to turn ideas into a reality. The Center for Information Technology Innovation (CITI) offers IT education for students, faculty and area business leaders. The Institute for International Business extends opportunities for students looking to master the complexities of doing business on a global level. And the Center for Health Administration provides health needs assessments and benefit studies to hospitals in the community.

Regardless of the program they choose for their focus, students end up with a highly respected University of Colorado degree, the support of an alumni network composed of thousands of working professionals and the tools to help them stay competitive in the future.

The Business School provides motivated students a top-quality, individualized education combining core knowledge and highly relevant practical application.

Sueann Ambron, Business School Dean



Our Advantages Give You the Edge

A Direct Connection to Business

Business advisory board members contribute to curriculum development, sponsor and support events, provide internship opportunities for our students, engage our faculty in research projects, and participate in our learning centers. This board is composed of more than 160 corporate advisors from companies such as Ball, Duke Energy, Frontier Airlines, Lockheed Martin, Molson-Coors, Price Waterhouse Coopers and Wells Fargo.

A Faculty of Leaders

With doctoral degrees from prominent universities such as Harvard, Yale, Stanford, UC-Berkeley, UCLA and MIT, our professors are teaching professionals. Many are also former high-level business professionals bringing years of business experience with them to their classrooms. In addition, the faculty remains highly involved with the business world through boards, associations, research and consulting.

A Cutting Edge Curriculum

Through constant interaction with the business community, course offerings at the Business School are tailored around the skills businesses need most. Case studies, computer simulations and real-world projects place an emphasis on active learning. In addition, senior executives from leading area businesses and civic organizations contribute input and ensure the curriculum is always relevant.

A Diverse Student Body

The school attracts intelligent, highly motivated students from all over the country and around the world – almost half of which are women. And with a graduate student body averaging 10 years of business experience, students bring with them a wide range of skills helping foster poignant, spirited class discussions, and enhance cultural awareness.

A Wider Range of Choices

Being the largest graduate school in the Rocky Mountain Region, the Business School offers students a more complete choice of programs. Undergraduate disciplines include accounting, entrepreneurship, finance, information systems, international business, management and marketing. Graduate programs include: five MBA choices (a Professional MBA, an 11-Month MBA, an MBA with a Health Administration emphasis, an Executive MBA and an Executive MBA in Health Administration); seven Master of Science programs; and one PhD program. Students also benefit from a greater number of core classes and a large selection of elective coursework and specialized tracks for an added advantage and more flexible scheduling alternatives.

A Spectacular Setting

The Business School is advantageously located in downtown Denver, providing students opportunities to not only expand their knowledge, but to explore life outside of school. The dynamic energy of the area has attracted the offices of Fortune 500 companies as well as many other successful professional businesses. The area is also the cultural heart of Denver, offering the best in sporting events, theatre, dining, shopping and nightlife. Add to the mix more than 300 days of sunshine a year and recreational opportunities, both around town as well as an hour or so away in the Rocky Mountains, and it's no wonder more than 2.4 million people embrace Denver as the perfect place to live, learn, work and play.

A Quality Accredited Education

The exceptional educational experience of the Business School is well recognized. It has earned accreditation by the Association to Advance Collegiate Schools of Business (AACSB). This elite distinction has only been granted to the top business programs in the United States and only to those which meet rigorous standards for curriculum, faculty, library and computer resources.





The Business School is a clear innovator, with ground-breaking academic programs and leading-edge research centers. The commitment to innovation can be seen in every aspect of the school, from the faculty, to the students, to the alumni, serving as a foundation for great success in the future. This innovation leads the way in educating our future business leaders for companies both locally and globally.

Robin Thurston, Business School Board Member
Vice President, Global Director of Research, Media and Marketing, Lipper

Undergraduate DEGREE PROGRAMS

Broad-Based Curriculum

The undergraduate degree program is designed to give students a well-rounded educational foundation for success in a future business career. Students have the option of earning a BS or BA with an area of emphasis in Accounting, Finance, Human Resources Management, Information Systems, International Business, Marketing or Management, or a general business degree with a non-business minor.

Faculty Who Bring More to the Classroom

Business School faculty are selected for their strong academic knowledge as well as the real-world insights developed through successful business careers. Through research and private consultancies, they keep current with the latest business issues and trends. With their range of knowledge, it isn't uncommon to find the same instructors teaching both undergraduate and graduate level classes.

Enriched Learning Environment

The distinguished quality of the undergraduate program is further enhanced by the student body, which enters with strong academic credentials and a high level of motivation. Advisors assist students in planning their course of study to meet specific career goals. They also help students locate internships, mentorship opportunities and student organizations to broaden their experiences and strengthen their resumes.



Our students know what they want and are very committed to their education. Involving students in the research process is an important teaching tool and they find the experience invaluable. Most of our students are “in the trenches” and are able to take what they learn on Wednesday evening and use it on Thursday morning at work.

Herman Aguinis (pictured left)
Mehalchin Term Professor of Management

Graduate DEGREE PROGRAMS

Advanced Degrees That Advance Careers

Some graduate programs teach primarily from the academic perspective—educating on the theories of business. Others teach using current working professionals—educating through their own personal experiences. The Business School curriculum provides a balance between both theory and practice. Professors are experts and among the most sought after consultants in their fields, while class projects regularly involve solving real problems faced by businesses in the region.

The emphasis on active learning — through case studies, real-world group projects and interaction with area businesses — ensures graduates have both the understanding of business practices and solid proof they can turn them into working solutions. Whether students pursue the generalized knowledge base of a Master of Business Administration (MBA) degree or the specialized focus of a Master of Science (MS) degree, they benefit from this uniquely relevant approach. In addition, graduates get the strong respect afforded a University of Colorado degree earned in Denver’s business hub.

MBA PROGRAMS

11-Month MBA
Executive MBA
Executive MBA –
Health Administration
MBA – Health Administration
Online MBA
Professional MBA

MS PROGRAMS

MS in Accounting
MS in Finance
MS in Health Administration
MS in Information Systems
MS in International Business
MS in Management
MS in Marketing

PhD PROGRAM

PhD in Computer Science
and Information Systems

Dual Degree Programs: The Best of Both Worlds

Through the dual degree program, students can combine the career advantages of the MBA’s broad knowledge base with the sought after skills of a specialized MS degree or blend the knowledge of two MS degrees to expand their career options. Pursuing the dual degree program requires additional coursework tailored to fulfill each student’s individual needs.



My MBA has opened many doors for me and provided a wealth of opportunities for growth, both as a person and as a professional. I have met a number of outstanding students, influential people and many healthcare leaders who have become my mentors. These people have become more than just my colleagues, they have instilled in me a great pride in the pursuit of my healthcare career.

Cassandra Moore
Administrative Resident, Health One/Medical Center of Aurora

Master of Business Administration PROGRAMS

The Right Balance

The Master of Business Administration (MBA) program is designed to meet the needs of business professionals. The curriculum combines established business theory with practical knowledge gained by working closely with businesses. Maximum flexibility lets students design their MBA degree around their schedule and career goals. Choices include an intensive full-time program requiring only 11 months of daytime coursework, full or part-time evening programs and flexible online options. The MBA program does not require prerequisite coursework or an undergraduate business degree.

11 MONTH MBA (FULL-TIME)

This innovative accelerated program provides the complete curriculum and knowledge base of a MBA in less than a year. Classes meet during the day at the state-of-the-art Bard Center in downtown Denver and provide an intense, highly productive learning atmosphere. Over the course of the 11-Month program, candidates move through the curriculum as a group. The curriculum includes nine core, one international business, one information technology and five special topic courses. The international course includes an overseas component and is taught by international professors to provide an especially insightful experience.

PROFESSIONAL MBA (FULL- OR PART-TIME)

The ultimate in flexibility, this program lets students complete an MBA at their own pace and at times which are convenient to regular work schedules. Students take anywhere from one to five classes per semester, allowing them earn an MBA in as little at 16 months or as long as five years. Specialized learning tracks also are available.

ONLINE MBA (FULL- OR PART-TIME)

Online courses represent a valuable extension of the Professional MBA program, with the same faculty and the same learning outcomes. Students who choose this option are not required to attend classes on campus, freeing them to pursue their studies anytime, anywhere during the semester. The entire MBA core curriculum and a wide variety of electives are available online. With courses designed to be equivalent, it is easy to combine online and on-campus classes. Students can complete one course or their entire MBA online.

MBA, HEALTH ADMINISTRATION EMPHASIS (FULL- OR PART-TIME)

Recognized by the Commission on Accreditation in Health Management Education (CAHME), this is the only accredited graduate program of its type in the Rocky Mountain region. The program offers an MBA with an emphasis in Health Administration. The curriculum combines general business management

concepts and techniques with tools specific to health services systems. In addition, Colorado is a center for many health care organizations, providing students extensive opportunities to apply their classroom learning.

EXECUTIVE MBA (PART-TIME)

With the increasing need for business leaders to interpret critical information important in long-term decisions for their organizations, the Executive MBA Program is specifically designed to provide the knowledge for strategic decision makers. Executive MBA coursework provides experienced business professionals with a broader business perspective, improves their ability to think and make decisions strategically, and creates an environment where participants apply the techniques and tools learned in class to challenges specific to their current job.

The program is structured so Executive MBA participants attend classes one full day each week, on alternating Fridays and Saturdays, and they can complete their MBA in 21 months, including a three-month summer break, while continuing to work at their careers.

EXECUTIVE MBA, HEALTH ADMINISTRATION (PART-TIME)

For candidates with healthcare management experience, the Executive MBA in Health Administration program provides an opportunity to earn an MBA without career interruption. The Executive Program at the Business School is the most established of its kind in the country and is accredited by the Commission on Accreditation in Health Management Education (CAHME). It is offered in partnership with the Network for Healthcare Management, a consortium of 17 leading universities throughout the United States and Canada. The program consists of two intensive one-week on-campus sessions each year combined with computer conferencing for the remainder of the time. A 24-month program, the Executive Program grants the same strong MBA with an emphasis in Health Administration as the full-time program, but within a framework designed for experienced healthcare professionals.





Teaching at the University of Colorado at Denver and Health Science Center (UCDHSC) is an incredibly exciting challenge. My goal is to see the knowledge and experience students gain in my classes add value to their busy lives. Incorporating leading-edge research in my field and engaging in research projects for local companies lets me take students well beyond textbook learning. Thanks to a very supportive business community, we've had the opportunity to conduct customer satisfaction, service quality, and other marketing projects for more 100 Colorado companies. The interaction between the business community and the university makes this a stimulating place to teach and learn.

Sue Keaveney
Wells Fargo Term Professor of Marketing

Master of Science PROGRAMS

The Master of Science degree is ideal for students looking to gain in-depth knowledge in a chosen area of business. These graduate programs emphasize a balance between theoretical learning and practical application gained through project work. In fact, many of the assigned projects require students to work directly with area businesses in addressing a current challenge or issue they are facing. As with the MBA program, a number of MS program courses can be taken online. Students who have completed an undergraduate business degree program from an accredited University can petition to waive the Common Body of Knowledge coursework. In some cases, this reduces the MS requirements by three to seven courses.

MASTER OF SCIENCE IN ACCOUNTING

The MS in Accounting is highly respected for the breadth of knowledge it provides. The program has earned an additional accounting AACSB accreditation. While students who complete the program consistently do well in passing the CPA exam, the accounting curriculum is designed from a broader perspective, arming students with knowledge which focuses on issues beyond the CPA exam such as IS processes and controls, fraud examination and tax planning.

MASTER OF SCIENCE IN FINANCE

The MS in Finance is one of the few graduate finance programs in the country. The curriculum embraces a unique course selection providing in-depth knowledge and the analytical skills needed for a career as a financial manager or finance specialist. The program builds a theoretical foundation and then augments it with a choice of four specialized electives. This program is excellent preparation for the CFA exam and provides specialized knowledge to help students advance in a finance profession.

MASTER OF SCIENCE IN HEALTH ADMINISTRATION

The MS in Health Administration provides a path of learning which addresses the special challenges of the health care industry. The program also offers specialized tracks which provide additional knowledge focused on specific areas within the health care industry including international health management and policy, financial management, and health information technology. The specialized tracks allow students to better understand global health issues, financial aspects of the industry and the technology needed to support major health care institutions.

MASTER OF SCIENCE IN INFORMATION SYSTEMS

The MS in Information Systems (IS) is Colorado's largest and one of the most comprehensive graduate IS programs in the West. The curriculum, covering a fundamental core of knowledge as well as specialized learning tracks, is regularly updated to meet the changing technology needs of business. It also integrates the Association of Computer Machinery (ACM) coursework recommendations.

MASTER OF SCIENCE IN INTERNATIONAL BUSINESS

The MS in International Business is an elite program which prepares students for the opportunities and challenges businesses face while operating in a global arena. Students build an understanding of international business environments, cross-border movement of goods, people and technology, as well as management of organizations in global markets. Students also develop skills regarding managerial aspects of global business, such as entering foreign markets, managing a multicultural workforce and coordinating multinational operations.

MASTERS OF SCIENCE IN MANAGEMENT

The MS in Management prepares students for upper level managerial positions in the public and private sectors. They learn to manage interpersonal dynamics, effectively design organizations, implement planned change and organization transformations, and create effective strategies for today's complex business environment. A special Human Resources track provides specific knowledge, tools and techniques used in recruiting, hiring, developing, motivating and rewarding managerial and non-managerial employees. A Communication Management track allows students to

develop skills in managing, creating, assessing, and delivering communication services within organizational contexts. Coursework also includes technology solutions such as designing and delivering online training and staff evaluation programs.

MASTER OF SCIENCE IN MARKETING

The MS in Marketing builds its strength on relevance. The curriculum provides comprehensive exposure to all aspects of marketing, preparing students for significant marketing management responsibilities in both private and public sectors. Students gain and apply theoretical marketing knowledge in a practitioner context, led by a research-based faculty who bring sustained experiences to the classroom. Close ties to the business community add to this unique learning opportunity.



Global perspective is important to the area's success, and the Business School is the principal source of this value-added education. The Business School prepares talented individuals to run future businesses and trains graduates to understand and be able to function successfully in what is an ever-expanding global business world.

Tony Bolazina, Business School Board Member
President, Northern Trust Bank of Colorado



Doctor OF PHILOSOPHY

PhD in Computer Science & Information Systems

A joint program between the Business School and the Computer Science and Engineering Department at UCDHSC, the Doctor of Philosophy degree in Computer Science and Information Systems (CSIS) was designed to meet the demand for advanced education in the areas of computer science and information systems related to information technology. The program blends computer science and information systems knowledge with strong industry interaction and targets students with a master's level education in either computer science or information systems who seek research training which combines CS and IS coursework along with strong industry interaction. This degree provides training for successful careers in academia, industry, research or consulting.



My degrees from the Business School have helped me open new horizons. I discovered a number of ways to improve today's businesses by applying techniques and procedures learned in class, including analyzing and solving problems, using teamwork to meet important business objectives and the importance of ethics in the business environment.

Jesica L. Sandoval
General Manager, Comercializadora Medica Farmaceutica (CMF-Mexico) and Representative for Mexico and Latin America, BrandSavvy Inc.

Expanding Opportunities BEYOND THE CLASSROOM

Just as business is as much about experience as it is knowledge, the Business School maintains strong associations with a number of active learning centers. These centers provide students and faculty access to local, regional, national and global business professionals, allowing them to gain first-hand insight and experience with current local and world business issues.

BARD CENTER FOR ENTREPRENEURSHIP

The Bard Center for Entrepreneurship was created in 1996 as an educational center devoted to promoting economic vitality and entrepreneurship in the region. The Bard Center provides classes designed to deliver practical knowledge in conceiving, launching and operating new businesses.

Students at the Bard Center are offered courses in opportunity and risk evaluation, new venture design, financial structuring and business plan creation. They also have the opportunity to participate in the Business Plan Competition, access the Rutt Bridges Venture Capital Fund and receive mentoring from the Bard Center Advisory Council comprised of top business leaders from the Rocky Mountain region.

CENTER FOR INFORMATION TECHNOLOGY INNOVATION

The Center for Information Technology Innovation (CITI) provides a forum for information interchange, specialized educational programs, research, and management of technology initiatives aimed at assisting major Denver area businesses as they plan, design, implement and manage information systems.

Students and faculty of the Business School can tap into this "living laboratory" environment and gain knowledge as well as practical experience through internships and externships at CITI member companies. The active CITI involvement of the business and academic communities creates a direct pipeline to the classroom for the most current technologies, concepts and business methods.

INSTITUTE FOR INTERNATIONAL BUSINESS

The Institute for International Business (IIB) is dedicated to the continual improvement of globally-focused education, research and outreach initiatives. Through the IIB's efforts UCDHSC was granted the prestigious Center for International Business Education Research (CIBER) designation by the United States Department of Education. Congress established CIBERs to help United States companies prosper in an international economy by marshaling the resources of select universities and enhancing their abilities to provide highly effective, internationally oriented educational, research and outreach initiatives.

The IIB and CIBER offer a number of programs to support students and faculty interested in mastering the complexities of global level business. These programs include the Global Executive Forum—bringing together senior executives in global business; Faculty Development in International Business Programs which enable national and international faculty to expand their knowledge; International Business Conferences offering topic specific conferences and seminars; International Executive Roundtables where students and faculty can interact informally with senior international business executives; leading business delegations to emerging market areas; and awarding faculty grants to fund research on global business related topics.

CENTER FOR HEALTH ADMINISTRATION

The Center for Health Administration provides health needs assessments and benefit studies to hospitals throughout the state of Colorado. They also conduct strategic planning and management education programs for individual physicians, as well as for hospital boards of directors.

Housed in the Business School, the Center provides graduate students in Health Administration programs the opportunity to gain valuable knowledge by assisting with the research and reports involved with these studies.

STUDENT ORGANIZATIONS

At the Business School, students' education only begins in the classroom. A wide variety of academic and professional organizations provide opportunities for self-development, career networking among members and practicing professionals, and developing a sense of ethical, social and public responsibility. These organizations also regularly host speaker functions and career panels where students can expand their knowledge and establish beneficial relationships with local, regional and national members of the business community.

Student organizations include the African American Business Student Alliance, the Aggressive Allegiance of Competitive Marketers (a sub-chapter of the American Advertising Federation), Beta Alpha Psi, Theta Sigma Chapter (a national scholastic and professional finance fraternity), Beta Gamma Sigma (honor society for AACSB International business programs), the Financial Management Association International, the Golden Key International Honor Society, the Health Administration Student Organization, the Information Systems Association, the Auraria Marketing Club, the MBA Student Organization, Phi Chi Theta, Gamma Iota Chapter (national business fraternity) and the Society for Human Resource Management. Details on specific organizations can be found under Campus Life on the Business School website.

EXECUTIVE EDUCATION

Through the Business School Executive Education program, area companies can leverage the same innovative research, real-world experience and effective teaching methods of the school's degree programs to get customized certificate programs, workshops and courses for senior management level individuals and teams. Program details can be obtained from the Business School website or by contacting the dean's office at 303.556.5802.



Admission

The curriculum of the Business School is rigorous and focused. The school admits highly motivated applicants who show a potential for business success. Detailed information and application forms are available on the Business School website. (Note: there are separate forms for undergraduate, graduate and international applicants.) Consideration for the undergraduate program requires a high school diploma or a High School Equivalency Certificate (GED). The school bases admission on several factors, the most important being grade point average, high school rank, scores on the ACT or SAT, and courses taken. Transfer students are evaluated based on the grade point average of their college-level work.

Graduate admission requires a bachelor's degree from a regionally accredited college or university, or an equivalent foreign degree, however it does not have to be an undergraduate business degree. Applicants must also submit Graduate Management Admission Test (GMAT) scores, their previous educational record and work experience, and answers to specific essay questions.

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Tuition

Tuition is based on a student's state of residency and the level of degree, undergraduate or graduate, he or she is pursuing. Specific tuition costs can be found under Admissions on the UCDHSC Downtown Denver Campus website at www.cudenver.edu or in the academic catalog.

Financial Aid and Scholarships

More than \$30 million in financial aid is awarded to UCDHSC students each year. Scholarships funded by members of the Colorado business community, the State of Colorado and private donors are available for both academic accomplishment and for financial need. Visit the UCDHSC Downtown Denver Campus website at www.cudenver.edu for details on individual awards programs.

Advising

The Business School curriculum is designed to be extremely flexible regarding the specific courses students can take. Undergraduate and graduate advisors help students sort through the options and select the best program to fit their career goals. Appointments may be arranged by calling 303.556.5800 for undergraduate advisors and 303.556.5900 for graduate advisors.

Through the opportunities afforded by campus activities, clubs, and associations, the Business School fosters students' growth beyond classroom knowledge. Joining the Financial Management Association, I received a great deal of real-world knowledge from leading experts in such fields as venture capital, idea conception and market adoption, innovation, SEC regulatory and accounting practices, and much more. These leading speakers were able to connect what I learned in the classroom to a more hands-on experience.

Paul Wise
Global Mobility Specialist, Thompkins, LLC

University of Colorado Denver

Program Plan for the Business School Building- Revision

APPENDIX B: CLASSROOM UTILIZATION BY ROOM

CourseID	CourseLevel	CRS_TRM_TITLE_DESC	ACTIVITY TYPEDESC	CombEnr I	CombSC H	MeetStart Date	MeetEnd Date	MEETING DAYS	STARTTIME	ENDTIME	BLDG	ROOM	duration_ho ur_adjusted	StuConta ctHours	SISRoom Capacity	PctOccup ied	
ACCT3054002	Undergrad	MARKETING RESEARCH	LECTURE	29	87	21AUG06:00	16DEC06:00	M	0655PM	0935PM	KING CENTER	103	3.2	92.8	48	60%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													60%				
ACCT2200001	Undergrad	ACCOUNTING SYSTEMS AND DATA PROCESSING	LECTURE	41	123	21AUG06:00	16DEC06:00	MW	0100PM	0215PM	KING CENTER	113	3	123.0	44	93%	
ACCT2200002	Undergrad	ACCOUNTING SYSTEMS AND DATA PROCESSING	LECTURE	45	135	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	KING CENTER	113	3	135.0	44	102%	
ACCT2200003	Undergrad	INFORMATION SYSTEMS INTRO TO BUSINESS	LECTURE	45	135	21AUG06:00	16DEC06:00	MW	1000AM	1115AM	KING CENTER	113	3	135.0	44	102%	
ACCT22000L1	Undergrad	INFORMATION SYSTEMS INTRO TO BUSINESS	LECTURE	44	132	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	KING CENTER	113	3	132.0	44	100%	
ACCT2220001	Undergrad	PROBLEM SOLVING INTRO TO BUSINESS	LECTURE	44	132	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	KING CENTER	113	3	132.0	44	100%	
Subtotal Hours Per Week													15				
Subtotal % Occupied													100%				
ACCT2220002	Undergrad	DATABASE MANAGEMENT AND APPLICATIONS	LECTURE	17	51	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	KING CENTER	205	3	51.0	36	47%	
ACCT22200L1	Grad	SERVICE ORIENTED ARCHITECTURE	HYBRID	9	27	21AUG06:00	16DEC06:00	W	0655PM	0935PM	KING CENTER	205	3.2	28.8	36	25%	
Subtotal Hours Per Week													6.2				
Subtotal % Occupied													36%				
ACCT2220003	Grad	DATABASE MANAGEMENT SYSTEMS	LECTURE	12	36	21AUG06:00	16DEC06:00	R	0655PM	0935PM	KING CENTER	211	3.2	38.4	54	22%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													22%				
ACCT3054001	Grad	ADVANCES IN MANAGEMENT INFORMATION SYSTEMS	SEMINAR	7	21	21AUG06:00	16DEC06:00	M	0600PM	0840PM	KING CENTER	315	3.2	22.4	24	29%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													29%				
ACCT3220001	Grad	FUNDNTLS OF HLTH INFO TECHNOLOGY MGMT	LECTURE	6	18	21AUG06:00	16DEC06:00	W	0655PM	0935PM	LIBRARY & MEDIA CENTER	4	3.2	19.2	27	22%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													22%				
ACCT6510001	Grad	ST: FRAUD EXAMINATION	LECTURE	27	81	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1202	3.2	86.4	72	38%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													38%				
ACCT6340001	Grad	CURRENT ISSUES IN PROFESSIONAL ACCOUNTING	LECTURE	13	39	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1204	3.2	41.6	72	18%	
BUSN6521001	Grad	LEGAL AND ETHICAL ENVIRONMENT OF BUSINESS	LECTURE	23	69	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1204	3.2	73.6	72	32%	
BUSN6540001	Grad	MARKETING MANAGEMENT	LECTURE	26	78	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1204	3.2	83.2	72	36%	
Subtotal Hours Per Week													9.6				
Subtotal % Occupied													29%				
INTB6000001	Grad	STMARKETING IN THE CHINESE ENVIRONMENT	LECTURE	24	72	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1207	3.2	76.8	96	25%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													25%				
ACCT6250002	Grad	SEMINAR: FINANCIAL ACCT	SEMINAR	27	81	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1311	3.2	86.4	42	64%	
ACCT6350001	Grad	ADV TAX FOR BUSINESSES	LECTURE	7	21	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1311	3.2	22.4	42	17%	
Subtotal Hours Per Week													6.4				
Subtotal % Occupied													40%				
FNCE6350001	Grad	HUMAN RESOURCES MGMT: TRAINING	LECTURE	6	18	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1312	3.2	19.2	36	17%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													17%				
ACCT6420001	Grad	ACCOUNTING & INFO SYSTEMS PROCESSES & CONTROL	LECTURE	17	51	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1314	3.2	54.4	36	47%	
Subtotal Hours Per Week													3.2				
Subtotal % Occupied													47%				
ACCT3230002	Undergrad	INTERMEDIATE FINANCIAL ACCOUNTING I	LECTURE	42	126	21AUG06:00	16DEC06:00	MW	1130AM	1245PM	NORTH CLASSROOM BUILDING	1315	3	126.0	49	86%	
ACCT3320001	Undergrad	INTERMEDIATE FINANCIAL ACCOUNTING I	LECTURE	34	102	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1315	3	102.0	49	69%	
ACCT3320002	Undergrad	INTERMEDIATE FINANCIAL ACCOUNTING II	LECTURE	44	132	21AUG06:00	16DEC06:00	MW	1000AM	1115AM	NORTH CLASSROOM BUILDING	1315	3	132.0	49	90%	
ACCT4410001	Undergrad	INTERMEDIATE FINANCIAL ACCOUNTING II	LECTURE	45	135	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1315	3	135.0	49	92%	
BLAW30000L1	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSI	LECTURE	24	72	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1315	3	72.0	49	49%	
FNCE3100001	Undergrad	INTRODUCTION TO BUSINESS	LECTURE	25	75	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	NORTH CLASSROOM BUILDING	1315	3	75.0	49	51%	
FNCE3200003	Undergrad	INTRO TO HUMAN RESOURCES	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	0400PM	0515PM	NORTH CLASSROOM BUILDING	1315	3	135.0	49	92%	
FNCE4330002	Undergrad	ORGANIZATION DESIGN	LECTURE	47	141	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	NORTH CLASSROOM BUILDING	1315	3	141.0	49	96%	
DSCI2010002	Grad	INTERNATIONAL FINANCIAL MANAGEMENT	LECTURE	21	63	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1315	3	63.0	49	43%	
DSCI3000003	Grad	TRANSNATIONAL LEADERSHIP: INTERNATIONAL MANAGEMENT	LECTURE	7	21	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1315	3.2	22.4	49	14%	
DSCI3000004	Grad	INTERNATIONAL HEALTH POLICY AND MANAGEMENT	LECTURE	19	57	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1315	3.2	60.8	49	39%	
Subtotal Hours Per Week													33.4				
Subtotal % Occupied													65%				
FNCE4370003	Undergrad	HUMAN RESOURCES MGMT: STAFFING	LECTURE	23	69	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1316	3.2	73.6	36	64%	
ACCT6250001	Grad	SEMINAR: FINANCIAL ACCT	SEMINAR	24	72	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1316	3.2	76.8	36	67%	
Subtotal Hours Per Week													6.4				
Subtotal % Occupied													65%				
ACCT6024002	Grad	ADV FINANCIAL ACCOUNTING	LECTURE	28	84	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1323	3.2	89.6	42	67%	

														Subtotal Hours Per Week		3.2	
														Subtotal % Occupied		67%	
ACCT3220002	Undergrad	FINANCIAL ACCOUNTING AND FINANCIAL STATEMENT ANALYSIS	LECTURE	46	138	21AUG06:00	16DEC06:00	MW	1130AM	1245PM	NORTH CLASSROOM BUILDING	1325	3	138.0	49	94%	
ACCT6840900	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSINESS	LECTURE	53	159	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	NORTH CLASSROOM BUILDING	1325	3	159.0	49	108%	
BLAW4120001	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSINESS	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	0100PM	0215PM	NORTH CLASSROOM BUILDING	1325	3	135.0	49	92%	
BUSN6630001	Undergrad	PRINCIPLES OF FINANCE I	LECTURE	46	138	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1325	3.2	147.2	49	94%	
BUSN6640002	Undergrad	INVESTMENT AND PORTFOLIO MANAGEMENT	LECTURE	28	84	21AUG06:00	16DEC06:00	MW	1000AM	1115AM	NORTH CLASSROOM BUILDING	1325	3	84.0	49	57%	
BUSN6710002	Undergrad	INTERNATIONAL FINANCIAL MANAGEMENT	LECTURE	26	78	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	NORTH CLASSROOM BUILDING	1325	3	78.0	49	53%	
FNCE3100002	Undergrad	INTRODUCTION TO BUSINESS	LECTURE	47	141	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1325	3	141.0	49	96%	
FNCE4500001	Undergrad	HUMAN RESOURCES MGMT: COMPENSATION	LECTURE	24	72	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	NORTH CLASSROOM BUILDING	1325	3	72.0	49	49%	
BUSN6540OL1	Grad	MARKETING MANAGEMENT	LECTURE	28	84	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1325	3.2	89.6	49	57%	
BUSN6610001	Grad	FINANCIAL MANAGEMENT	LECTURE	23	69	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1325	3	69.0	49	47%	
BUSN6840900	Grad	QUANTITATIVE METHODS FOR FINANCE	LECTURE	29	87	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1325	3	87.0	49	59%	
DSCI6840900	Grad	INTERNATIONAL BUSINESS NEGOTIATIONS	LECTURE	19	57	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1325	3.2	60.8	49	39%	
FNCE6310OL1	Grad	INTERNATIONAL HUMAN RESOURCES MANAGEMENT	LECTURE	17	51	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1325	3	51.0	49	35%	
														Subtotal Hours Per Week		39.6	
														Subtotal % Occupied		68%	
BUSN6620001	Undergrad	BUSINESS STATISTICS	LECTURE	35	105	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	NORTH CLASSROOM BUILDING	1402	3	105.0	48	73%	
BUSN6630002	Undergrad	PRINCIPLES OF FINANCE II	LECTURE	48	144	21AUG06:00	16DEC06:00	MW	1000AM	1115AM	NORTH CLASSROOM BUILDING	1402	3	144.0	48	100%	
FNCE4330001	Undergrad	CONFLICT & CHANGE IN ORGANIZATIONS	LECTURE	30	90	21AUG06:00	16DEC06:00	MW	0100PM	0215PM	NORTH CLASSROOM BUILDING	1402	3	90.0	48	63%	
FNCE6420001	Undergrad	APPLIED MARKETING MGMT	LECTURE	39	117	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1402	3	117.0	48	81%	
FNCE6430001	Undergrad	APPLIED MARKETING MGMT	LECTURE	32	96	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	NORTH CLASSROOM BUILDING	1402	3	96.0	48	67%	
FNCE6480001	Undergrad	APPLIED MARKETING MGMT	LECTURE	36	108	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1402	3	108.0	48	75%	
HLTH6055001	Undergrad	CUSTOMER RELATIONSHIP MANAGEMENT	LECTURE	22	66	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	NORTH CLASSROOM BUILDING	1402	3	66.0	48	46%	
ACCT6260001	Grad	SEMINAR: MANAGERIAL ACCOUNTING	SEMINAR	14	42	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1402	3.2	44.8	48	29%	
BUSN6520002	Grad	DATA ANALYSIS FOR MANAGERS	LECTURE	42	126	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1402	3.2	134.4	48	88%	
BUSN6520003	Grad	DATA ANALYSIS FOR MANAGERS	LECTURE	41	123	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1402	3	123.0	48	85%	
BUSN6530001	Grad	LEGAL AND ETHICAL ENVIRONMENT OF BUSINESS	LECTURE	31	93	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1402	3	93.0	48	65%	
BUSN6550001	Grad	INFORMATION TECHNOLOGY MANAGEMENT	LECTURE	18	54	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1402	3.2	57.6	48	38%	
BUSN6560003	Grad	FINANCIAL MANAGEMENT	LECTURE	22	66	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1402	3.2	70.4	48	46%	
														Subtotal Hours Per Week		39.8	
														Subtotal % Occupied		66%	
ACCT3220OL1	Undergrad	FINANCIAL ACCOUNTING AND FINANCIAL STATEMENT ANALYSIS	LECTURE	49	147	21AUG06:00	16DEC06:00	MW	0100PM	0215PM	NORTH CLASSROOM BUILDING	1408	3	147.0	56	88%	
ACCT6020001	Undergrad	INCOME TAX ACCOUNTING	LECTURE	32	96	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	NORTH CLASSROOM BUILDING	1408	3	96.0	56	57%	
FNCE4350001	Undergrad	ORGANIZATION DESIGN	LECTURE	48	144	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1408	3.2	153.6	56	86%	
FNCE6290001	Undergrad	BUSINESS POLICY AND STRATEGIC MANAGEMENT	LECTURE	36	108	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1408	3	108.0	56	64%	
BUSN6530OL1	Grad	ANALYZING & INTERPRETING ACCOUNTING INFORMATION	LECTURE	35	105	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1408	3.2	112.0	56	63%	
BUSN6550003	Grad	APPLIED ECONOMICS FOR MANAGERS	LECTURE	28	84	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1408	3.2	89.6	56	50%	
DSCI3000001	Grad	HEALTH CARE SYSTEMS	LECTURE	28	84	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1408	3.2	89.6	56	50%	
														Subtotal Hours Per Week		21.8	
														Subtotal % Occupied		65%	
BUSN6640003	Undergrad	INVESTMENT AND PORTFOLIO MANAGEMENT	LECTURE	35	105	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1511	3	105.0	56	63%	
FNCE3200001	Undergrad	MANAGING INDIVIDUALS AND TEAMS	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1511	3	135.0	56	80%	
FNCE3200002	Undergrad	MANAGING INDIVIDUALS AND TEAMS	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	NORTH CLASSROOM BUILDING	1511	3	135.0	56	80%	
BUSN6530003	Grad	ANALYZING & INTERPRETING ACCOUNTING INFORMATION	LECTURE	23	69	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1511	3	69.0	56	41%	
BUSN6560OL1	Grad	FINANCIAL MANAGEMENT	LECTURE	20	60	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1511	3.2	64.0	56	36%	
DSCI6822OL1	Grad	CROSS-CULTURAL MANAGEMENT	LECTURE	27	81	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1511	3.2	86.4	56	48%	
FNCE6330OL1	Grad	DESIGNING EFFECTIVE ORGANIZATIONS	LECTURE	17	51	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1511	3.2	54.4	56	30%	
FNCE6370001	Grad	BARGAINING & NEGOTIATION	SEMINAR	18	54	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1511	3.2	57.6	56	32%	
														Subtotal Hours Per Week		24.8	
														Subtotal % Occupied		51%	
BLAW3000001	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSINESS	LECTURE	43	129	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1515	3.2	137.6	58	74%	
BUSN6631002	Undergrad	PRINCIPLES OF FINANCE II	LECTURE	45	135	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1515	3.2	144.0	58	78%	
FNCE3100OL1	Undergrad	MANAGING INDIVIDUALS AND TEAMS	LECTURE	43	129	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1515	3	129.0	58	74%	
BLAW4120002	Grad	MANAGING INDIVIDUALS AND TEAMS	LECTURE	44	132	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1515	3.2	140.8	58	76%	
BLAW4120003	Grad	MANAGING INDIVIDUALS AND TEAMS	LECTURE	21	63	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1515	3	63.0	58	36%	
BUSN6610OL1	Grad	STRATEGIC MANAGEMENT	LECTURE	16	48	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1515	3.2	51.2	58	28%	
														Subtotal Hours Per Week		18.8	
														Subtotal % Occupied		61%	
ACCT4410002	Undergrad	INTERMEDIATE COST ACCT	LECTURE	29	87	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1602	3.2	92.8	48	60%	

BUSN6620003	Undergrad	PRINCIPLES OF FINANCE I	LECTURE	45	135	21AUG06:00	16DEC06:00	MW	0100PM	0215PM	NORTH CLASSROOM BUILDING	1602	3	135.0	48	94%
BUSN66200L1	Undergrad	PRINCIPLES OF FINANCE I	LECTURE	43	129	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1602	3	129.0	48	90%
BUSN66300L1	Undergrad	PRINCIPLES OF FINANCE II	LECTURE	41	123	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	NORTH CLASSROOM BUILDING	1602	3	123.0	48	85%
FNCE3100003	Undergrad	INTRODUCTION TO BUSINESS	LECTURE	19	57	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1602	3	57.0	48	40%
HLTH5939900	Undergrad	ADVERTISING	LECTURE	42	126	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	NORTH CLASSROOM BUILDING	1602	3	126.0	48	88%
HLTH6010001	Undergrad	INTERNATIONAL MARKETING	LECTURE	29	87	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	NORTH CLASSROOM BUILDING	1602	3	87.0	48	60%
HLTH6040001	Undergrad	INTERNATIONAL MARKETING	LECTURE	35	105	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1602	3	105.0	48	73%
ACCT6024001	Grad	ADV FINANCIAL ACCOUNTING	LECTURE	30	90	21AUG06:00	16DEC06:00	TR	0100PM	0215PM	NORTH CLASSROOM BUILDING	1602	3	90.0	48	63%
BUSN6550002	Grad	INFORMATION TECHNOLOGY MANAGEMENT	LECTURE	24	72	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1602	3.2	76.8	48	50%
BUSN6560001	Grad	MANAGEMENT OF OPERATIONS	LECTURE	31	93	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1602	3.2	99.2	48	65%
BUSN6560002	Grad	MANAGEMENT OF OPERATIONS	LECTURE	17	51	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1602	3.2	54.4	48	35%
FNCE63400L1	Grad	MANAGING PEOPLE FOR COMPETITIVE ADVANTAGE	LECTURE	8	24	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1602	3	24.0	48	17%
Subtotal Hours Per Week													39.8			
Subtotal % Occupied													63%			
ACCT6800001	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSI	LECTURE	47	141	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	NORTH CLASSROOM BUILDING	1603	3	141.0	48	98%
BLAW3000002	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSI	LECTURE	35	105	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1603	3	105.0	48	73%
BUSN66400L1	Undergrad	FINANCIAL MARKETS AND INSTITUTIONS	LECTURE	21	63	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	NORTH CLASSROOM BUILDING	1603	3	63.0	48	44%
FNCE3200004	Undergrad	MANAGING CULTURAL DIVERSITY	LECTURE	34	102	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1603	3	102.0	48	71%
FNCE5939900	Undergrad	BUSINESS POLICY AND STRATEGIC MANAGEMENT	LECTURE	34	102	21AUG06:00	16DEC06:00	MW	1130AM	1245PM	NORTH CLASSROOM BUILDING	1603	3	102.0	48	71%
FNCE63000L1	Undergrad	BUSINESS POLICY AND STRATEGIC MANAGEMENT	LECTURE	44	132	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1603	3.2	140.8	48	92%
DSCI6820001	Grad	INTRO TO INTERNATIONAL BUSINESS	LECTURE	37	111	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1603	3.2	118.4	48	77%
ENTP3000001	Grad	INTERNATIONAL TRADE, FINANCE, MANAGEMENT	LECTURE	29	87	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1603	3.2	92.8	48	60%
Subtotal Hours Per Week													24.6			
Subtotal % Occupied													73%			
ACCT3230001	Undergrad	FINANCIAL ACCOUNTING AND FINANCIAL STATEMENT ANAL	LECTURE	48	144	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1605	3	144.0	48	100%
BUSN68300L1	Undergrad	CORPORATE FINANCIAL DECISIONS	LECTURE	37	111	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1605	3	111.0	48	77%
FNCE4350002	Undergrad	INTRO TO INTERNATIONAL BUSINESS	LECTURE	30	90	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1605	3.2	96.0	48	63%
FNCE6380001	Undergrad	PRINCIPLES OF MARKETING	LECTURE	42	126	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	NORTH CLASSROOM BUILDING	1605	3	126.0	48	88%
BUSN6610002	Grad	STRATEGIC MANAGEMENT	LECTURE	26	78	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1605	3.2	83.2	48	54%
DSCI3000002	Grad	HEALTHCARE FINANCIAL MANAGEMENT	LECTURE	23	69	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	1605	3.2	73.6	48	48%
HLTH6072001	Grad	ADVERTISING & PROMOTION MANAGEMENT	LECTURE	27	81	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1605	3.2	86.4	48	56%
Subtotal Hours Per Week													21.8			
Subtotal % Occupied													69%			
ACCT6020002	Undergrad	INCOME TAX ACCOUNTING	LECTURE	40	120	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	1607	3	120.0	72	56%
BUSN6520001	Grad	MANAGING INDIVIDUALS & TEAMS (HEALTH SECTION)	LECTURE	21	63	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1607	3	63.0	72	29%
BUSN65200L1	Grad	DATA ANALYSIS FOR MANAGERS	LECTURE	39	117	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1607	3.2	124.8	72	54%
BUSN6530002	Grad	ANALYZING & INTERPRETING ACCOUNTING INFORMATION	LECTURE	45	135	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1607	3.2	144.0	72	63%
HLTH6070001	Grad	SERVICES MARKETING	LECTURE	17	51	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	1607	3	51.0	72	24%
Subtotal Hours Per Week													15.4			
Subtotal % Occupied													45%			
BLAW3000003	Undergrad	LEGAL AND ETHICAL ENVIRONMENTS OF BUSI	LECTURE	51	153	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	1806	3.2	163.2	68	75%
BLAW4120004	Grad	MANAGING INDIVIDUALS AND TEAMS	LECTURE	40	120	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	1806	3.2	128.0	68	59%
BUSN6540002	Grad	MARKETING MANAGEMENT	LECTURE	24	72	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	1806	3	72.0	68	35%
BUSN65500L1	Grad	APPLIED ECONOMICS FOR MANAGERS	LECTURE	49	147	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	1806	3.2	156.8	68	72%
Subtotal Hours Per Week													12.6			
Subtotal % Occupied													60%			
BUSN6640001	Undergrad	PRINCIPLES OF FINANCE II	LECTURE	33	99	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	NORTH CLASSROOM BUILDING	2001	3	99.0	48	69%
BUSN6710001	Undergrad	FINANCIAL MARKETS AND INSTITUTIONS	LECTURE	39	117	21AUG06:00	16DEC06:00	T	0655PM	0935PM	NORTH CLASSROOM BUILDING	2001	3.2	124.8	48	81%
BUSN67100L1	Undergrad	INTERNATIONAL FINANCIAL MANAGEMENT	LECTURE	38	114	21AUG06:00	16DEC06:00	R	0655PM	0935PM	NORTH CLASSROOM BUILDING	2001	3.2	121.6	48	79%
FNCE4370002	Undergrad	INTRO TO INTERNATIONAL BUSINESS	LECTURE	15	45	21AUG06:00	16DEC06:00	M	0655PM	0935PM	NORTH CLASSROOM BUILDING	2001	3.2	48.0	48	31%
DSCI2010001	Grad	FINANCIAL INNOVATIONS	LECTURE	15	45	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	NORTH CLASSROOM BUILDING	2001	3	45.0	48	31%
DSCI2010003	Grad	FUTURES AND OPTIONS	LECTURE	20	60	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	NORTH CLASSROOM BUILDING	2001	3	60.0	48	42%
DSCI2010004	Grad	FINANCIAL MODELING	LECTURE	30	90	21AUG06:00	16DEC06:00	W	0655PM	0935PM	NORTH CLASSROOM BUILDING	2001	3.2	96.0	48	63%
Subtotal Hours Per Week													21.8			
Subtotal % Occupied													57%			
INTB6020001	Undergrad	MANAGERIAL ACCOUNTING & PROFESSIONAL ACCOUNTING ISSUES	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	PLAZA BUILDING (FORMERLY ST)	112	3	135.0	48	94%
ISMG6080001	Undergrad	PRINC OF INFO SYSTEMS THEORY & PRACTICE	LECTURE	39	117	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	PLAZA BUILDING (FORMERLY ST)	112	3	117.0	48	81%
ISMG7200001	Undergrad	PRINCIPLES OF MARKETING	LECTURE	45	135	21AUG06:00	16DEC06:00	MW	0400PM	0515PM	PLAZA BUILDING (FORMERLY ST)	112	3	135.0	48	94%
ISMG7840900	Undergrad	PRINCIPLES OF MARKETING	LECTURE	37	111	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	112	3	111.0	48	77%
ISMG64200L1	Grad	BUSINESS PROCESS MANAGEMENT	HYBRID	12	36	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	112	3	36.0	48	25%

ISMG64500L1	Grad	IT INFRASTRUCTURE	LECTURE	9	27	21AUG06:00	16DEC06:00	T	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	112	3.2	28.8	48	19%
Subtotal Hours Per Week													18.2			
Subtotal % Occupied													65%			
INTB6840900	Undergrad	INTERMEDIATE COST ACCT	LECTURE	40	120	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	PLAZA BUILDING (FORMERLY ST)	114	3	120.0	48	83%
ISMG2200001	Undergrad	BUSINESS STATISTICS	LECTURE	32	96	21AUG06:00	16DEC06:00	M	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	114	3.2	102.4	48	67%
ISMG6280OL1	Undergrad	PROJECT MANAGEMENT AND PRACTICE	LECTURE	13	39	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	114	3	39.0	48	27%
ISMG8990900	Undergrad	PRINCIPLES OF MARKETING	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	PLAZA BUILDING (FORMERLY ST)	114	3	135.0	48	94%
ISMG8990901	Undergrad	PRINCIPLES OF MARKETING	LECTURE	47	141	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	PLAZA BUILDING (FORMERLY ST)	114	3	141.0	48	98%
ISMG8990902	Undergrad	INTERNATIONAL TRANSPORTATION	LECTURE	31	93	21AUG06:00	16DEC06:00	T	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	114	3.2	99.2	48	65%
ISMG8990904	Grad	MARKETING RESEARCH	LECTURE	11	33	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	114	3	33.0	48	23%
Subtotal Hours Per Week													21.4			
Subtotal % Occupied													65%			
ISMG3000003	Undergrad	OPERATIONS MANAGEMENT	LECTURE	41	123	21AUG06:00	16DEC06:00	MW	1130AM	1245PM	PLAZA BUILDING (FORMERLY ST)	130	3	123.0	48	85%
ISMG3000OL1	Undergrad	OPERATIONS MANAGEMENT	LECTURE	33	99	21AUG06:00	16DEC06:00	MW	0100PM	0215PM	PLAZA BUILDING (FORMERLY ST)	130	3	99.0	48	69%
ISMG4500001	Undergrad	OPERATIONS MANAGEMENT	LECTURE	34	102	21AUG06:00	16DEC06:00	MW	0230PM	0345PM	PLAZA BUILDING (FORMERLY ST)	130	3	102.0	48	71%
ISMG4700001	Undergrad	OPERATIONS MANAGEMENT	LECTURE	44	132	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	130	3	132.0	48	92%
ISMG6280H01	Undergrad	NETWORKS AND TELECOMMUNICATION	LECTURE	20	60	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	130	3	60.0	48	42%
ISMG2000001	Grad	AUDITING	LECTURE	37	111	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	PLAZA BUILDING (FORMERLY ST)	130	3	111.0	48	77%
ISMG4900001	Grad	PROJECT MANAGEMENT	LECTURE	32	96	21AUG06:00	16DEC06:00	W	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	130	3.2	102.4	48	67%
ISMG6020OL1	Grad	MERGERS AND ACQUISITIONS	LECTURE	16	48	21AUG06:00	16DEC06:00	M	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	130	3.2	51.2	48	33%
Subtotal Hours Per Week													24.4			
Subtotal % Occupied													67%			
INTB6022001	Undergrad	MANAGERIAL ACCOUNTING & PROFESSIONAL ACCT ISSUES	LECTURE	43	129	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	PLAZA BUILDING (FORMERLY ST)	132	3	129.0	48	90%
ISMG3000001	Undergrad	BUSINESS STATISTICS	LECTURE	39	117	21AUG06:00	16DEC06:00	TR	1000AM	1115AM	PLAZA BUILDING (FORMERLY ST)	132	3	117.0	48	81%
ISMG3000002	Undergrad	BUSINESS STATISTICS	LECTURE	38	114	21AUG06:00	16DEC06:00	TR	1130AM	1245PM	PLAZA BUILDING (FORMERLY ST)	132	3	114.0	48	79%
ISMG6240OL1	Undergrad	PRINC OF INFO SYSTEMS THEORY & PRACTICE	LECTURE	14	42	21AUG06:00	16DEC06:00	T	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	132	3.2	44.8	48	29%
ISMG2000OL1	Grad	FINANCIAL STATEMENT ANALYSIS	SEMINAR	40	120	21AUG06:00	16DEC06:00	MW	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	132	3	120.0	48	83%
Subtotal Hours Per Week													15.2			
Subtotal % Occupied													73%			
INTB6024001	Undergrad	MANAGERIAL ACCOUNTING & PROFESSIONAL ACCT ISSUES	LECTURE	33	99	21AUG06:00	16DEC06:00	T	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	213	3.2	105.6	48	69%
ISMG2000002	Grad	AUDITING	LECTURE	45	135	21AUG06:00	16DEC06:00	TR	0530PM	0645PM	PLAZA BUILDING (FORMERLY ST)	213	3	135.0	48	94%
Subtotal Hours Per Week													6.2			
Subtotal % Occupied													81%			
ISMG6040H01	Grad	PRACTICAL EQUITY ANALY & PORTFOLIO MGMT	LECTURE	20	60	21AUG06:00	16DEC06:00	R	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	260	3.2	64.0	53	38%
Subtotal Hours Per Week													3.2			
Subtotal % Occupied													38%			
ISMG8990903	Grad	MARKETING STRATEGY, EVALUATION & DEVELOPMENT	LECTURE	24	72	21AUG06:00	16DEC06:00	W	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	M104	3.2	76.8	41	59%
Subtotal Hours Per Week													3.2			
Subtotal % Occupied													59%			
ISMG6060OL1	Undergrad	PROGRAMMING INTRO TO BUSINESS	LECTURE	11	33	21AUG06:00	16DEC06:00	MW	0100PM	0215PM	PLAZA BUILDING (FORMERLY ST)	M206	3	33.0	47	23%
ISMG6120001	Undergrad	PRINC OF INFO SYSTEMS THEORY & PRACTICE	LECTURE	26	78	21AUG06:00	16DEC06:00	TR	0230PM	0345PM	PLAZA BUILDING (FORMERLY ST)	M206	3	78.0	47	55%
ISMG2050001	Grad	MANAGEMENT OF OPERATIONS (HEALTH SECTION)	LECTURE	24	72	21AUG06:00	16DEC06:00	M	0655PM	0935PM	PLAZA BUILDING (FORMERLY ST)	M206	3.2	76.8	47	51%
Subtotal Hours Per Week													9.2			
Subtotal % Occupied													43%			
MGMT1000001	Undergrad	PRINCIPLES OF ENTREPRENEURSHIP	LECTURE	28	84	21AUG06:00	16DEC06:00	TR	0400PM	0515PM	SCIENCE BUILDING	327	3	84.0	45	62%
Subtotal Hours Per Week													3			
Subtotal % Occupied													62%			
TOTAL HOURS PER WEEK													490.6			
AVG HRS PER CLASSROOM													14			
OVERALL UTILIZATION													61%			

University of Colorado Denver

Program Plan for the Business School Building- Revision

APPENDIX C: CU-DENVER BUILDING FACILITIES AUDIT

Facilities Audit

UCDHSC Facilities Operations Department
Engineering Programs, Prepared by Scott Roen, P.E.
Controlled Maintenance & Facilities Audit Program
Provided for State Buildings & Real Estate Programs

DRAFT

Active Document – includes on-going entry/revision (e-file)

July 2006

CU-Denver Building (DRAVO)
Downtown Denver Campus

Report Content

- Facilities Audit Summary Report
- General Facilities Audit Process
 - Background
 - Audit Methodology
- Facilities Audit Narrative
- Deferred Maintenance Projects
- List of Supporting Documents
 - Problem List (active on-going database)
 - Inspection Forms
 - Calculation Page/Cost Estimates (spreadsheet)
 - Other Appendix Items (typically not attached to this e-document)

Facilities Audit Summary Report

Building Name: CU-Denver Building (DRAVO)
Campus/Location: Downtown Denver
Occupancy Type: office, student auditorium, records storage, computer-server
Gross Space (sq ft): 159,573
Number of Levels: 8
Year Built: 1977
Year Remodeled:
Date Inspected: July 2006

Building Estimated Current Replacement Value (C.R.V.): \$ 17,495,134

Summary: Assessment Rating & Deficiency Cost

Building Component	System Deficiency Rating	Building Component Multiplier	Component Value (C.R.V.)	Estimated Cost of Deficiency
Building Structure	83%	0.31	5,423,492	949,111
HVAC Systems	26%	0.40	6,998,054	5,150,567
Plumbing Systems	71%	0.07	1,224,659	355,764
Electrical Systems	74%	0.15	2,624,270	675,750
Code Compliance & Safety	52%	0.07	1,224,659	590,163

100%=Perfect

Total: \$ 7,721,355

Facilities Condition Index $(1 - (\text{Deficiency}/\text{C.R.V.})) \times 100 = \text{F.C.I.}$

$$\text{F.C.I.} = \frac{\text{Cost of Deficiency}}{\text{C.R.V.}} = \frac{\$ 7,721,355}{\$ 17,495,134} = \mathbf{55.9\%}$$

Percent Change from Previous = -x.x %

Focuses Critical Need:

To achieve the greatest impact, define the Building Component that will be emphasized

Fire Protection/Life- Safety, HVAC – VAV-reheat

General Facilities Audit Process

Background

The Facilities Audit is a building condition assessment process, developed specifically for University of Colorado at Denver and Health Sciences Center facilities, though largely modeled after industry standard guidelines - primarily APPA (“The Association of Higher Education Facility Officers” and from information provided by State Buildings and Real Estate Programs – SBREP). The Facilities Audit is used to rapidly evaluate the physical condition of existing buildings and campus infrastructure.

The Facilities Audit is the starting point for identifying deficient assets that comprise the campus complex. This process starts with fact-finding and quantitative grading that leads to project planning and prioritizing, and then finally project development and recommendation.

There are two main objectives of the Facilities Audit Program. First, a methodical approach for surveying building conditions was necessary to allow comprehensive Controlled Maintenance project planning. This survey process was intended to be broad in nature, generally identifying maintenance deficiencies that could be developed into corrective projects. The audit is completed periodically – generally over a 3 year cycle. Also, the Facilities Audit is intended to produce standardized building condition information, enabling meaningful comparisons within an inventory of similar building types or functions. Comparative grading allows ranking and prioritizing based on relative condition and allows Controlled Maintenance planning based on objectively applied criteria of condition. This comparative approach should lead to an improved ability to prioritize the greatest maintenance needs.

The Facilities Audit will result in quantifiable grading as expressed in an FCI number (the Facilities Condition Index, which is the cost ratio of maintenance deficiencies within the building, divided by the estimated cost of replacement for the building - one minus this ratio allows a large percentage figure to indicate an excellent condition). The FCI number should assist with prioritizing needs.

$$FCI = 1 - \frac{\text{Cost of Maintenance Deficiencies}}{\text{Current Replacement Value}}$$

The second main objective is to develop a list of maintenance problems. The listing of deficiencies will help provide detail for developing potential projects. Then this information is used to prepare a list of top priority deferred maintenance projects. Included in this project database is an estimate of project costs. The projects in this list are then prioritized to identify major maintenance needs. Using consulting services, greater detail will be developed in preparing for future Controlled Maintenance projects.

Audit Methodology

The Facilities Audit assesses building condition to identify a “snap-shot” of maintenance problems in the various campus buildings. The audit draws upon data that basically already exists, though may be in various forms laid out over several years. It relies upon theoretical life spans and broad estimating rates for replacement valuations. Building component condition grades are translated to theoretical costs - comparing the cost of new versus old, expressed as a percentage as expressed in the grade.

Emphasis is placed on site walk-through and visual inspection of condition, interviews and discussion with operating staff, and review of any past consulting reports. Previous projects are reviewed. Current operating and maintenance problems are discussed. The results provide a broad-brush assessment of building sub-component condition.

This information is most valuable when used in a comparative manner. The audit should identify the problems on a building component basis. Then comparing component deficiencies of one building to other campus buildings allows for a quantitative understanding of priority problems.

Building Condition Survey

The Facilities Audit Program uses an inspection team – made up of building trades experts (supervisors, foreman, and work leaders) – who are each responsible for one of the five predetermined major building construction components, these are: Building Structure, HVAC Systems, Electrical Systems, Plumbing Systems, and Code Compliance & Life Safety Systems.

Each building component is broken down into several sub-components. The building sub-component definition remains consistent for each similar building on campus - thereby allowing for comparative evaluation. Each building sub-component is graded using simplistic criteria, such as: Good, Fair, Needs Work, Poor (with graduation between these relative expressions of condition).

The inspection team members complete a building walk-through survey and fill-out a “Facilities Audit Inspection Form” for each building that is audited. This grading form asks questions about life safety issues, potential system failure issues, and asks questions about the condition of sub-components in the building. Also, the evaluator lists observed top-priority maintenance problems (it is emphasized to the audit team to make this list of maintenance problems as detailed and comprehensive as possible – this forms the beginning of the deferred maintenance project database).

There three general approaches to conducting the building inspection. These are generally referred to as: fly-by, walk-through, or crawl through. Each approach has a differing degree of detail and conversely a differing amount of time commitment and money.

Building Component Grade

The building sub-components are graded in a simplistic manner in order to obtain a broad understanding of building condition. These grades, when compared to other buildings, allow for prioritization of need. Greater detail is necessary to develop projects. Generally, each grade is defined as shown:

- **Poor Condition** – Building component should be replaced and/or an extensive renovation project is required to correct obsolescence of a nonfunctioning system.
- **Needs Work** – Building component could be corrected with extensive renovation. The system appears to be working, but modernization is needed to upgrade the system. The component has surpassed its expected useful life.
- **Fair Condition** – Building component is functioning, but is in need of maintenance work. The component is approaching the end of its useful life.
- **Good Condition** – Routine and preventive maintenance should be continued to keep the building component in good working order.

Each building sub-component is graded by the audit team. These grades are discussed during the post-walk-through meeting. Specialists attend this meeting as necessary to comment on unique circumstances or reoccurring maintenance problems. The sub-component grades and maintenance problems are listed and fine-tuned during the discussion. Each grade is assigned a point value, from one to four including fractional amount if applicable, and a weighted-average is calculated and reported as a percentage.

The inspection grade is further modified by additional criteria obtained during the building survey. Specific questions are used to address potential life safety problems, to address the possibility of a major system failure that could result in disruption of building operation, and to address the comparative nature of the condition of this particular sub-component with respect to other campus buildings. This additional criteria is used to adjust the final grade and to assign preliminary cost estimates.

Cost Estimates

The grade is used to arrive at an estimated cost of deficiency. The audit team does not complete project cost estimates in the field – although cost concerns are discussed at the post-walk-through meeting. Cost estimates are obtained indirectly. Knowing the approximate replacement value of the building (estimated on a per square foot basis) and the approximate value of the building component (estimated as a percentage of the overall building value with consideration for occupancy type), then the cost of building deficiencies is determined empirically. Using the component grade and a practical understanding of building component replacement, the cost of the deficiency is estimated. Assuming the relative condition of the building sub-component is directly related to the cost of repairing this sub-component, then an approximate cost of deficiency can be assumed. This cost data does not make up the project cost estimates, which are analyzed separately as individual stand-alone projects (using consulting services when necessary for priority projects). However, this cost data should provide general guidance when identifying the associated cost of all the prioritized deferred maintenance projects within the building. This cost data is used to calculate the Facilities Condition Index (FCI). The

FCI ratio is a useful gage when comparing buildings across campus. Also, the FCI number is used to prioritize potential Controlled Maintenance projects.

Deferred Maintenance Projects

The second main objective of the Facilities Audit Program is to use the audit data to help identify future projects. Each building has a listing of maintenance problems that is developed into a database of top priority deferred maintenance projects. This listing of deficiencies will help provide detail for developing potential projects. Maintenance deficiencies in and of themselves, are not complete projects. Generally, similar maintenance problems are logically grouped together to create potential projects. These preliminary projects are expanded to reflect complete project development requirements, such as: consulting services, contractor mobilization, contractor overhead & profit, project closeout, commissioning, and owner contingency. Initially, an approximate deficiency markup of about 35% is used in preparing for potential projects. High priority projects are further developed by using consulting services. These projects are candidates for inclusion in the Controlled Maintenance Five-Year Plan.

Facilities Condition Narrative

The overall goal of this report is to establish a short list of top priority improvement projects that will begin to correct on-going facilities deficiencies. And to identify the relative condition of the facility - for comparative purposes - as expressed in a quantifiable grade – the F.C.I. number. The State Buildings and Real Estate Programs (SBREP) uses the Controlled Maintenance process to fund facilities improvement projects, and the basis for prioritizing projects is the Facilities Audit.

The CU-Denver Building was recently acquired as an asset under ownership of the CU System, even though this building has been continually occupied by university programs over a long time period. The long term space lease arrangement placed the university as a de facto owner without holding title to the property. Over the long term the university has provided all building operating and maintenance services, including some capital improvements and paying for all required utilities. At this point of transition, long term capital renewal should be considered.

The 1977 constructed, 8 floor building (with associated Annex building) is showing its age and is in need of improvements. An important early consideration is an agreed upon master-plan process for identifying the long term versus short term direction of facilities improvements (this report is unable to fully address this need for “planning direction” nor to provide full detail on all recommended projects).. It is potentially a mistake to undertake quick maintenance projects in a piece-meal fashion without understanding the big picture – thereby requiring removal/alteration of recent work. In some cases work could begin rapidly, such as on Fire Protection/Life Safety projects that need to happen one way or another. On the other hand, space heating and cooling needs as provided through an air-side HVAC system versus a water-side HVAC system need early resolution.

HVAC Improvements: water-side equipment versus air-side equipment

The audit process attempts to consider replacement of deteriorated building components with similar modernized systems. In reality new more advanced technology would make this simple replacement less valuable. The more likely approach to replacing old equipment would be to take advantage of new more energy efficient systems and in some cases systems that better accommodate the current space function.

This is precisely the case for this building and especially for one of it’s the top priority needs - 1st floor heating and cooling improvements. The original space use consisted of tenant-leased retail/restaurant operations. Due to changing needs and poorly renovated changes over the last 30 years, the 1st floor HVAC system is in poor shape. The current unventilated 4-pipe/single-coil fan coil system should be completely replaced (the audit assume replacement with like system – estimate about \$230,000). The preferred replacement project would be for a VAV-reheat air delivery system. To make this type of improvement would require a building wide capital renewal effort driven by a long

term master plan. This first major decision point of water-side HVAC (similar to existing) versus a more suitable air-side HVAC system needs resolution (for comparative purposes, for the 1st floor only, plus additional AHU ductwork/miscellaneous improvements – estimate about \$240,000; however these miscellaneous improvements help to correct other problems in 2nd – 8th floor HVAC; allowing for greater value).

Improvement Strategy

Various maintenance improvement projects will help extend the life of the major building systems – including basic preventative maintenance practice. There are several large scale projects that must be considered as capital improvements. A strategic plan is necessary to define direction for undertaking facilities improvements. The traditional operations and maintenance budget will not be sufficient to correct the large scale nature of the problem. SBREP has a “Capital Renewal” program that could be considered. Generally a Controlled Maintenance project – or any phase of a CM project – that exceeds two million dollars would be a candidate for capital renewal funding. Project requests of this type should first be submitted to CCHE as a capital construction project (including explanation of why this project is “maintenance driven” and not “program driven”).

Performance contracting may also be considered – using future energy savings to obtain funding to pay for major renovation through an ESCO (Energy Services Contractor). It is generally understood that the project loan must be backed by a CU treasure obligation, though no cash outlay is required.

The following information describes facilities deficiencies of the building components.

Building Code, Life Safety, Hazardous Materials

An existing older facility is generally exempt from changing codes and regulation as new understanding changes over time. This is as long as the existing structure remains unchanged. As alterations, renovations, and especially expansion is considered, often time the existing structure must be updated. Also many facilities that serve the general public voluntarily modernize or otherwise attempt to meet existing building code requirements. The CU-Denver Building is in great need of correcting code deficiencies.

Fire Protection & Life Safety

As a priority need, an emergency power generator should be installed to serve the fire pump and should be sized large enough to feed emergency exit lighting (which would allow for the removal of battery operated exit lights – and ongoing O&M cost). Included in this project is a need for ATO switchgear to transfer power in the event of utility power interruption.

Egress problems are another need that must be addressed. At the Annex Building, there is a “stairway to no where”. Apparently there was previous work that may have been done for security reasons. At that time, a metal pan was installed with poured concrete

on top that blocks entry to the first floor, thereby creating a dead-end corridor. This is in violation of fire code and needs to be corrected.

Another fire protection improvement is a required upgrade to the elevator recall system. Upgrades are required per code to improve the current system. Denver Fire Dept defines Phase 1 and Phase 2 improvements. Phase 1, which returns the car to the ground floor has been done; Phase 2 which allows the fire department to control the elevator through use of a fire key may need to be completed in the future.

Public Refuge Area

Providing areas of refuge may be code required, though additional work needs to be done in this area, especially existing conditions investigation. The integrity of fire-rated barriers needs to be maintained. This may include space air pressure control for the refuge area - and/or just the elevator shaft. Apparently a fan/damper system was designed for pressurization of the elevator shaft (there are no fire-rated walls that could allow for pressurization of the elevator lobbies), though the integrity of this system has not been maintained. This problem must be corrected.

Most modern facilities meet code requirements through a sprinkler-system using booster pump pressurization, automatic heat-detected activation, and automatic notification to the local fire protection district serving the municipality. Additional features include pull-stations for hand activated emergency response, audible fire alarming and strobe lights, illuminated exit lights, and specially constructed egress paths (public corridors constructed with floor-to-ceiling structure participations to minimize smoke travel, special fire rated doors, and walls constructed with fire rated gypsum drywall board). These areas must be addressed by design and construction firms specializing in this area.

Miscellaneous

General safety concerns that need ongoing attention include: exit lighting, fire-rated barriers (partitions extending to structure where required, eliminating holes in fire-rated partitions above the ceiling, insuring sprinkler head coverage, maintain egress passage, machine rooms may need to be sprinkled.

ADA Compliance:

Public facilities are required to meet pertinent ADA regulations of the Americans with Disabilities Act to improve access for handicapped individuals. This building appears to have made adequate and reasonable accommodation – though there are several smaller items that need ADA attention and should be further investigated. The facility should make every reasonable attempt to ensure compliance with ADA requirements.

Apparently there is only one ADA accessible bathroom arrangement which is located on the 4th floor – this should be expanded (most bathrooms should be updated).

Hazardous Materials:

Buildings constructed in the early 1970's or earlier often times have problems associated with pipe and duct insulation that has asbestos containing materials (ACM). This building was built in 1977 and consequently there is no evidence of asbestos problems.

Mechanical – HVAC (heating, ventilation, and air-conditioning)

The HVAC building components greatly impact occupant comfort and have large energy consumption consequence. Basic operating strategies may have energy conservation value (simple control strategies should be automated, such as time clocks, thermostat set-back, turning off lights, etc. - this could all save energy dollars).

1st Floor & Annex HVAC

There are approximately 25 four-pipe fan coil units serving this area (each unit consists of only one coil that attempts to provide heating or cooling – not both at the same time – this single coil results in water mixing and poor temperature control with great energy waste). These units are beyond repair and require replacement.

The control valve at each fan coil unit is defective and allows mixing of hot water with chilled water return. This mixing places an artificial load on the chiller increasing energy consumption and affecting occupant comfort. The fan coil units operate continuously and do not shutdown during unoccupied hours. This system must be replaced, though an alternate system should be considered prior to implementing a replacement program.

This area would be better served by an air-side HVAC system and would allow for code required ventilation improvements and energy conservation improvements – including improved temperature control. Air-side equipment refers to an HVAC system that uses air as the primary medium for transferring thermal energy. Central equipment located in the penthouse is used to condition and then distribute air through ductwork. The air-handling-unit (AHU) consists of chilled water coils, heating water coils, fans, etc. Water-side equipment uses piping to distribute chilled water and heating water to many small local units consisting of coils and fans (ventilation air is not distributed and temperature control fine-tuning is accomplished by local hot water reheat coils for each zone).

The area should be served by a VAV-reheat system, though extension of the existing air system serving the floors 2 through 8 may be difficult (further investigation should be considered). The Annex would be best served by its own roof-top mount AHU. Extending the existing system would be preferred but several system components may need to be upgraded (though upgrade may be necessary due deterioration as it is a 30-year old system). If then central system is not expanded, then the first floor will need its own AHU. Location will be difficult – including duct runs to bring in ventilation air from the outside.

As discussed previously, an important decision point is resolution of how to proceed with 1st floor HVAC improvements – air-side HVAC or water-side HVAC. Considering a like-for-like replacement assumes the provision of fan-coil-units (2 coils) – not

recommended. Using a VAV-reheat system is preferred, but more complicated and has greater reliance on building-wide improvements (increased risk due to greater unknown conditions). The first significant consideration involves how to get more air supplies to the 1st floor where needed ductwork does not exist. Additional related concerns are many, including: supply fan capacity and capability (cfm/static-pressure/motor-horsepower), AHU ancillary equipment (chilled water/heating water), access to building shafts/chase allowing for ductwork extension, etc. Additionally, as increase ventilation air is brought into the AHU and then delivered to the space, building pressure relief must be considered.

Ventilation & Outside Air Economizer

Code required ventilation air may not be adequate and is not provided on the 1st floor (original 1st floor function as retail/restaurant). In addition to ventilation for occupant health is the need to consider energy conservation. Using damper arrangements to bring in greater amounts of outside air when its temperature is advantageous to the AHU process can help minimize energy costs (or the opposite of bring in less air if at outside air temperature extremes). This is referred to as the air-economizer-cycle and is non-existent in this building.

The current AHU arrangement has no economizer though there is sufficient wall and louver space for outside air and the relief side of an economizer system. Dampers, actuators/controls, and return/exhaust fans are required. This is a basic energy conservation measure. (Also, water-side at the cooling tower should be considered to enhance the free cooling mode of HVAC operation.)

HVAC Piping

Especially related to the 1st floor fan coil units, but also the existing reheat system on floors 2nd – 8th is the HVAC piping (also any building improvements will be impacted by the piping). The heating water piping and chilled water piping distribution system through out the building is in poor shape – especially on the 1st floor. During a recent maintenance project, isolation and shutoff valves were installed at several locations. This work allowed for a view into the piping that clearly indicated great corrosion problems and piping deterioration (due to mixing of hot and cold water and the failed thermal expansion system, water chemistry has been greatly compromised, lead to corrosion problems). This entire system will most likely need replacement, including ancillary equipment.

2nd – 8th Floor HVAC

Conditioned air from the penthouse AHU is delivered to various zones via a terminal unit configuration referred to as a Z-box. Apparently the Z-box is similar to a VAV-reheat box, though it was a contractor-proprietary device that has been very problematic. These boxes are original equipment and are difficult to maintain due to lack of replacement parts. There have been numerous tenement-finish renovations that were insufficiently designed resulting in inconsistent use of the base HVAC infrastructure and a mixed-match temperature control zoning. Perimeter baseboard hot water convectors are used for perimeter heating loads.

The Z-box terminal units should be replaced with a modern VAV-reheat system including a DDC control system.

Heating Water

The original heating system used electric boilers (1,000 KW) that were discontinued some time ago. Most recently the building has purchased steam from Xcel Energy's downtown Denver district steam plant. They currently use steam-to hot water heat exchangers to provide the building heating. The cost of this utility is rising and it may be desirable for the building to invest in its own heating plant to save on future energy costs.

Approximately March 2005, UCDHSC procured consulting services through Shaffer-Baucom Engineering Consultants to further investigate the feasibility and boiler provision alternatives. The new boiler(s) could be installed in the roof top penthouse after the disassembly and removal of the old disabled electric boilers (including the shut down and removal of the city steam heat exchanger). The new boiler plant, with necessary controls, piping, electrical service, gas service, was estimated have a capacity of 2,000 MBTU/H heat input. The new gas line was to be routed through an abandoned grease exhaust shaft.

Significant findings of this investigation determined that a penthouse boiler retrofit would be unfeasible due to potential code violations. The existing boiler room exits to a refrigeration room and this manner of egress is not allowed by current buildings codes (both the City of Denver and the IBC codes) – additionally the space of the existing boiler room would not accommodate increased capacity boiler size.

Also noted in this feasibility study is that the existing building electrical equipment is located in the chiller room (this is also a violation of both codes). The building codes require that the only electrical equipment that is allowed to be located in this space is the electrical equipment that directly serves the chiller system, not building wide electrical service – this equipment should be in a separate room. Also the refrigeration room must be in a separate fire rated enclosure.

Therefore the study recommended an alter location for the new boiler. The proposed new location resulted in the construction of a new 1-hr fire rated boiler room in a penthouse location currently used as a portion of the building return air plenum. This is a reasonable alternative with an estimated June 2005 simple payback based on current energy use of about 8.3 years.

Air-Handling-Unit & Supporting Ancillary Equipment Replacement

AHU equipment is old but in fairly good working order. An air economizer system should be considered. If the VAV-reheat system is expanded, AHU capacity will likely be impacted. If additional ductwork is added, especially at the far-end of the duct run, then the critical flow path will be altered and thereby change fan static pressure requirements (additional investigation will be necessary).

AHU supporting equipment must also be considered for upgrade. New boiler equipment is considered elsewhere, but additionally the heating water pumping system will need improvements. The system should be upgraded for variable flow and the current cross connection with the chilled water system must be eliminated. Expansion tank volume should be considered in conjunction with an improved water treatment program. Also the chilled water distribution system needs improvement including water-side free cooling provisions made at the cooling tower. Also, variable flow pumping, controls, water treatment must be corrected.

Water cooled chillers and the associated cooling tower may need to be modification - including bypass filtration on the condenser water loop.

Mechanical – Plumbing

The plumbing systems include domestic potable water, water heating equipment, sanitary sewer piping, and roof drains/stormwater.

Miscellaneous

The building needs a domestic water booster pump. Poor water pressure at penthouse is a problem and this makes it a slow process to fill the cooling towers. This may also result in the need to add PRV's at lower floors to regulate water pressure.

Also floor drains and branch sewer piping need to be cleaned out (use jet cleaner).

Electrical

In general, the electrical system providing power to the facility is of sufficient capacity. Emergency power per a standby generator is an important consideration and is addressed in another section.

Miscellaneous

Electrical safety through the use of ground-fault-interruption devices should be considered - put GFI's on the mains. Circuit breakers are all fused as would be expect for a 1970's building. Generally, the electrical system is in fair condition given its age.

There is a roof located transformer room (there is no roof on this enclosure). Xcel has complete ownership of this equipment (with lock& key). Also because the transformers are oil-filled, there is no stormwater drain and consequence a standing water problem.

Annual maintenance must continue including tightening lugs on all electrical connections and using an infra-red scanner as necessary to look for poor connections.

The domestic hot water heaters (qty of 2) use electric heating.

Recently a lighting upgrade project was completed for the 2' X 4' fixture that included electronic ballasts and T8 lamps.

Building Structure

The building is structurally sound and well kept.

Miscellaneous

The windows are in somewhat poor condition and replacement should be considered.

It is likely that all 4 elevators will need to be replaced at some point in the near future.

On the northeast entry to the building, the brick pavers are coming up in many places and present a trip hazard and the general condition of this entry area is somewhat unsightly. Corrective work is necessary in this area.

Ancillary – IT (information technology & security)

To modernize the information systems physical plant, new category 5 cabling improvements are required. This work is straight forward and very necessary to transmit electronic data as required by the occupants of this facility.

The preliminary cost estimate of \$350 per FT of cable and covers about 1,100 FT is generally accurate. Therefore the project cost estimate is \$385,000.

Previous/Recent Improvements

Not as an exhaustive listing, but some previous capital improvements have been completed in an attempt to update the facility. The following list includes some basic projects, but does not include smaller day-to-day operating improvements.

1. T-8 lighting upgrade
2. 8th Floor computer A/C (refrigeration) – split DX system
3. fire detection – “Silent Night” system
- 4.

Deferred Maintenance Projects

List of Potential Priority Controlled Maintenance Projects:

During the inspection and evaluation of the facility condition, several high priority projects were identified. These project suggestions may be further refined using architectural and/or engineering consulting services and then submitted as Controlled Maintenance projects.

Generally as an estimate, to create a stand-alone project definition, the identified maintenance deficiency cost is increased by about 35% to account for consulting services, contractor general conditions, project contingency, and other associated costs.

Potential Project:	Cost Estimate:
Emergency Generator	\$ 185,000

Upgrade the fire protection system to include an emergency power generator, fuel storage, automatic transfer switch suitable to provide backup power in the event of utility power interruption.

Potential Project:	Cost Estimate:
Life Safety Improvements	\$ 227,900

Insure egress pathways, provide fire-rated partitions from structure-to-structure where required by code, insure the integrity of fire-rated barriers by eliminating any holes, provide public refuge areas as required by code, including pressure control if necessary – through the provision of smoke control fans, dampers, and controls. Provide additional sprinkler heads in machine rooms and insure adequate sprinkler coverage throughout the building. Provide elevator recall as necessary and insure fire phones, door magnetic release, exit lighting, and all required fire/safety code provision.

Potential Project:	Cost Estimate:
1st Floor HVAC Improvements	\$ 427,500

Several HVAC improvements are necessary, though may need to be phased. The 1st floor fan coil system should be replaced with a VAV-reheat system. Air-handling-unit ductwork distribution will need to be extended to the first floor (this may be difficult and will need further investigation). This will require shaft/case space and may require AHU retrofit work (potentially a temporary AHU static pressure solution may allow phasing). HVAC piping will need to be replaced.

Potential Project:	Cost Estimate:
HVAC Piping Improvements	\$ 230,000

Several HVAC improvements are necessary, though may need to be phased. The heating water, chilled water, piping, expansion control, water treatment equipment must be replaced.

Potential Project:	Cost Estimate:
2nd - 4th Floor HVAC Improvements	\$ 445,500

Several HVAC improvements are necessary, though may need to be phased. The 2nd to 4th floor Z-box distribution system must be replaced with a new VAV-reheat system.

Potential Project:	Cost Estimate:
5th - 8th Floor HVAC Improvements	\$ 595,000

Several HVAC improvements are necessary, though may need to be phased. The 5th to 8th floor Z-box distribution system must be replaced with a new VAV-reheat system.

Potential Project:	Cost Estimate:
Annex Rooftop Unit Installation	\$ xxx

Several HVAC improvements are necessary, though may need to be phased. The Annex building needs its own rooftop unit to supply the building with a VAV-reheat system.

Potential Project:	Cost Estimate:
New Boiler Installation	\$ 356,250

Provide new hot water boiler in lieu of Xcel provided steam, remove old disabled boilers and heat exchangers, provide new boiler room, and gas service.

Potential Project:	Cost Estimate:
AHU Replacement	\$ 244,950

The air-handling-unit needs to be upgraded to serve the new/expanded VAV-reheat system (new fans may be required), provide air-economizer system with dampers, controls, return/exhaust fan, filtration, miscellaneous improvements.

Potential Project:	Cost Estimate:
AHU Ancillary Equipment	\$ xxx

The air-handling-unit needs to be upgraded, including supporting equipment hot water and chilled water coils, control valves, variable-flow pumping, DDC control system, and other miscellaneous improvements.

Potential Project:	Cost Estimate:
AHU Ancillary Equipment: Chillers/Cooling Towers	\$ xxx

The air-handling-unit needs to be upgraded, including supporting equipment such as chillers, cooling towers.

Potential Project:	Cost Estimate:
IT Cable Replacement	\$ 385,000

Provide new category 5 cable for data network.

Potential Project:	Cost Estimate:
Window Replacement	\$ xxx

Potential Project:	Cost Estimate:
Elevator Replacement	\$ xxx

Potential Project:	Cost Estimate:
	\$ xxx