Course Description from CCSU Catalog: BUS 548 - Business Decision Models (3 Credits)
Analyzing business data for managerial decision making and solving business problems. Topics include optimization (linear and non-linear models), queuing, Monte Carlo simulation, spreadsheet modeling.

Prerequisites:
1. BUS 538 or permission of MBA Director

Course Objectives: At the conclusion of this course, a student will be able to:

• Analyze business data for managerial decision making.
• Gain a solid understanding of prescriptive analytics.
• Demonstrate skills using spreadsheet modeling for business analysis.
• Solve business problems using quantitative methods.
• Apply written communication skills.
• Demonstrate oral communication skills.
• Develop linear optimization models for business decision making.
• Evaluate non-linear optimization models for the real-life business applications.
• Develop queuing models for increasing the efficiency of business process.
• Run Monte Carlo simulation models for risk management in business.
## Assurance of Learning (AOL) for MBA Program

<table>
<thead>
<tr>
<th>Learning Goals</th>
<th>Learning Objectives</th>
<th>Level* in BUS 548</th>
<th>Learning Activities in BUS 548</th>
</tr>
</thead>
</table>
| **Thinking Skills**  
MBA graduates use thinking skills and knowledge of business theory and practice to make effective decisions. | **TS 1**: MBA students will gather, analyze, and synthesize relevant data and information in order to solve problems and arrive at appropriate decisions. | 5 | Group projects, assignments, tests |
| **Communication Skills**  
MBA graduates exercise effective written and oral communication skills. | **CS 1**: MBA students will prepare and deliver an effective business document.  
**CS 2**: MBA students will prepare and deliver an effective business presentation. | 5 | Group projects, Group presentation |
| **Leadership Skills**  
MBA graduates demonstrate leadership skills appropriate for a variety of business contexts. | **LS 1**: MBA students will evaluate how leadership traits and behaviors affect key stakeholders. | 5 | Business case studies |
| **Specialized Knowledge**  
MBA graduates demonstrate competence in the core curriculum’s shared areas of business knowledge - lean management, business intelligence, and globalization. | **SK 1**: MBA students will utilize quantitative analysis methods to identify salient information and trends in data.  
**SK 2**: MBA students will analyze the impact of organizational decisions on stakeholders. | 5 | Assignments, tests, group projects, Group projects |

*Levels  
1 = Not covered in course  
3 = Course introduces the concept/topic.  
5 = Reinforced in course (has been introduced elsewhere in curriculum)  
7 = Course emphasizes objective and promotes a level of mastery.
Textbook Information

- **Required** - Students must have this textbook.
- Textbook Information:
  - Author: Anderson et al.
  - Title: An Introduction to Management Science, 15th Edition
  - Publisher: Cengage

Course Instructor, Office Hours, Course Delivery Mode

**Instructor:**
C. Christopher Lee, PhD
Professor of Management & Organization
School of Business
Central Connecticut State University
1615 Stanley Street, New Britain, CT 06050-4010, USA
E-mail: christopher.lee@ccsu.edu
Office: Vance Academic Center Room 434
Office Phone: (860) 832-3288 | Department: (860) 832-3275
Webex: https://ccsu.webex.com/meet/christopher.lee

To schedule an online meeting with Chris via Teams, please click [here](https://ccsu.webex.com/meet/christopher.lee).

Office Hours | Vita | Google Scholar | Research Gate | Linkedin
---|---|---|---|---

**Office Hours:**
- **Monday to Friday 2:00 to 3:00 pm**
  ➤ Please make a call via MS-Teams during the office hours.
- **Other times are available upon request.**
  ➤ To schedule a meeting at other times, go to
  https://outlook.office365.com/owa/calendar/CentralConnecticutStateUniversity4@my.ccsu.edu/bookings/
  ➤ You do not need to email or call me for the appointment confirmation.

**Online Class Meeting:**
- We will meet **Monday, Wednesday, and Friday at 7:00 – 9:00 pm**, from July 7th to August 6th, 2021.
- The meeting will be held online via MS-Teams and recorded. The video will be posted on Blackboard.
- During the online meeting, we will have a lecture session, or Q & A session.
- All the learning materials and assignment submission links will be posted on Blackboard.
**Assessment Criteria (Tentative)**

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams &amp; Quiz</td>
<td>30%*</td>
</tr>
<tr>
<td>Assignments (Homework, Project, etc.)</td>
<td>60%*</td>
</tr>
<tr>
<td>Attendance &amp; Participation</td>
<td>10%*</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The assessment proportions are tentative and are subject to change at the instructor’s discretion. Such changes show in BlackBoard as the class proceeds.

**Grading Scale (CCSU):**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>94 - 100%</td>
<td>A</td>
</tr>
<tr>
<td>90 - 93.9%</td>
<td>A-</td>
</tr>
<tr>
<td>87 - 89.9%</td>
<td>B+</td>
</tr>
<tr>
<td>84 - 86.9%</td>
<td>B</td>
</tr>
<tr>
<td>80 - 83.9%</td>
<td>B-</td>
</tr>
<tr>
<td>77 - 79.9%</td>
<td>C+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Letter Grade</th>
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</thead>
<tbody>
<tr>
<td>74 - 76.9%</td>
<td>C</td>
</tr>
<tr>
<td>70 - 73.9%</td>
<td>C-</td>
</tr>
<tr>
<td>67 - 69.9%</td>
<td>D+</td>
</tr>
<tr>
<td>64 - 66.9%</td>
<td>D</td>
</tr>
<tr>
<td>60 - 63.9%</td>
<td>D-</td>
</tr>
<tr>
<td>≤ 59.9%</td>
<td>F</td>
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</tbody>
</table>

*Note: This grade schema is in compliance with CCSU Catalog

**Course Policy**

- **Presentation:**
  - Each student will make a presentation of the class project via Microsoft Teams at the end of class.
  - The presentation will be shared via Microsoft Teams.
  - One of the best ways to learn about how to deliver polished presentations is to learn from others’ mistakes and successes. In addition, students in this class should demonstrate support and respect for one another by giving constructive feedback to each other.

- **Reading Assignments**
  - Our success as a class depends on everyone’s willingness to read materials before coming to class. Students are expected to read the materials so that we can use class time to focus on discussion and class exercises.

- **Communication with Instructor**
  - Students can contact the instructor via phone or e-mail.
  - E-mail communication will be more effective than phone call.
  - Please expect an e-mail reply within 2 days.
  - However, I may not respond until Monday if you email me during the weekend.

- **Late and Missed Work**
  - Late work will NOT be accepted because it is unfair to your classmates.
  - What if a university-sanctioned event causes you to be unable to turn in an assignment? Notify me in advance, and have appropriate documentation or I will not accept the work.
What if a major illness causes you to be unable to turn in an assignment? The illness must be documented with a doctor’s notes, and you must notify me about the illness as soon as possible or I will not accept the work.

• **Academic Integrity**
  - Violation of academic integrity demonstrates a lack of professionalism and has devastating consequences. An environment that fosters true learning requires mutual respect and trust among faculty and students. When someone violates that trust, it ruins that person’s reputation and damages our university’s reputation.
  - The Student Code of Conduct is available at: http://web.ccsu.edu/studentconduct/codeofconduct.asp
  - The CCSU honor code for Academic Integrity is in effect in this class. Refer to: http://www.ccsu.edu/page.cfm?p=6756.
  - As this policy clearly states, plagiarism and other forms of cheating are forbidden.
  - All writing and other creative work you submit in this class must be your own.
  - You will be punished justly if you use any author’s phrasings or ideas without citation.
  - If I suspect that you violated academic integrity (e.g., cheating, plagiarism, or the like), you will NOT be provided the opportunity to re-do the work.
  - If you are uncertain, or have any questions, about what constitutes plagiarism, please ask me, and I will help you.

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**Course Schedule (Tentative)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Topics*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Ch. 1, Introduction</td>
</tr>
<tr>
<td>2</td>
<td>• Ch. 2, Introduction to Linear Programming (LP)</td>
</tr>
<tr>
<td>3</td>
<td>• Ch. 3, LP: Sensitivity Analysis &amp; Interpretation of Solution</td>
</tr>
<tr>
<td>4</td>
<td>• Ch. 4, LP Applications in Marketing, Finance, and Operations Management</td>
</tr>
<tr>
<td>5</td>
<td>• Ch. 5, Advanced LP Applications</td>
</tr>
<tr>
<td>6</td>
<td>• Data Envelopment Analysis Model Applications</td>
</tr>
<tr>
<td>7</td>
<td>• Ch. 6, Distribution &amp; Network Models</td>
</tr>
<tr>
<td>8</td>
<td>• Ch. 8, Nonlinear Optimization Models</td>
</tr>
<tr>
<td>9</td>
<td>• Ch. 9, Project Scheduling: PERT/CPM; Ch. 10, Inventory Models</td>
</tr>
<tr>
<td>10</td>
<td>• Ch. 11, Waiting Line (Queuing) Models</td>
</tr>
<tr>
<td>11</td>
<td>• Ch. 12, Simulation</td>
</tr>
<tr>
<td>12</td>
<td>• Ch. 13, Decision Analysis</td>
</tr>
<tr>
<td>13</td>
<td>• Ch. 14, Multicriteria Decisions - Analytic Hierarchy Process (AHP) Model</td>
</tr>
<tr>
<td>14</td>
<td>• Ch. 15, Time Series Analysis &amp; Forecasting</td>
</tr>
<tr>
<td></td>
<td>• Final Exam</td>
</tr>
</tbody>
</table>

*This course plan is tentative and subject to change at the instructor’s discretion; On-line learning activities via BlackBoard Learn are expected each week.*
Student Support Services at CCSU

Statement on Discrimination and Harassment
Central Connecticut State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon age; ancestry, color; gender identity and expression; intellectual disability; learning disability; mental disorder; physical disability; marital status, national origin; race; religious creed; sex, (including pregnancy, transgender status, sexual harassment and sexual assault); sexual orientation; or any other status protected by federal or state laws. Any student who has concerns about should contact the Office of Diversity and Equity (ODE) at 860-832-1652, Student Affairs at 860-832-1601, or his/her faculty member. The ODE is located on the main floor of Davidson Hall, room 102.

Sexual Misconduct, Intimate Partner Violence and Stalking
Central Connecticut State University (CCSU) will not tolerate sexual misconduct against students, staff, faculty, or visitors in any form, including but not limited to: sexual assault, sexual exploitation, sexual harassment or stalking, as defined in CCSU policies. For additional information, please consult the CCSU policy at http://www.ccsu.edu/diversity/policies/BORSexualMisconductFeb2015.pdf. All faculty members and staff have a duty to report incidents of sexual harassment including sexual misconduct, intimate partner violence and stalking to Rosa Rodriguez, Title IX Officer, Office of Diversity and Equity, Davidson Hall, 102.

- To file a report contact: Diversity and Equity (860-832-1652), Student Conduct (860-832-1667) or Student Affairs (860-832-1601).
- For criminal complaints, contact the University Police (860-832-2375).
- For support and advocacy contact: Office of Victim Advocacy at 860-832-3795 or sarahdodd@ccsu.edu;
  Student Wellness Services at 860-832-1945 (confidential); Women’s Center at 860-832-1655; the local
  YWCA’s Sexual Assault Crisis Services Hotline at 860-223-1787 (confidential) and Prudence
  Crandall
  Center for Domestic Violence (confidential) at 888-774-2900 (24-hour hotline).

Wellness Services
The CCSU Student Wellness Center provides a range of mental health, medical, and wellness education services to enrolled CCSU students. Services are free and confidential. Although students can call for an appointment any time there is a need, you are encouraged to seek counseling and health-related services before emotional, interpersonal, behavioral, and/or medical concerns begin to interfere with your well-being or academic success. To make an appointment, please call 860-832-1926 or stop by the Student Wellness Center located in Willard-DiLoreto Hall, W101.