SINCLAIR COMMUNITY COLLEGE
DAYTON, OHIO

DEPARTMENT SYLLABUS FOR COURSE IN

MAT 1120 – BUSINESS MATHEMATICS
(3 CREDIT HOURS)

1. COURSE DESCRIPTION: Mathematics of finance, mathematics of trade, payroll, taxes, insurance and elementary statistics. Traditional Testing (proctored or in Testing Center) in all online sections.

2. COURSE OBJECTIVES: To provide students with an understanding of the mathematical skills and concepts required to be successful in business.

3. PREREQUISITE: DEV 0035 or DEV 0054 or Satisfactory score on Sinclair Community College English Placement Test.

4. ASSESSMENT Four Tests: Each test accounts for 20% of the final grade.
The instructor will determine the actual allocation of the remaining 20% of the final grade, ensuring that there is a positive allocation for the **MyLab Math homework** and for the **Self-Study & Finals Week Presentation**. There is no final exam for this course.

5. TEXT: **Business Mathematics**, 14th Edition
Clendenen, Salzman
Prentice Hall
Adopted: 18/FA

6. CALCULATOR POLICY: A scientific calculator is required.

The department calculator policy states:
The required calculator for all MAT classes is the TI-30XIIS .

7. PREPARED BY: Business Mathematics Committee.
Committee Members:
Najat Baji (online coordinator), Craig Birkemeier, Patti Bromer, Glen Lobo (chair & ftf coordinator).

Effective: 18/FA

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CLASS SCHEDULE FOR COURSE IN
MAT 1120 – BUSINESS MATHEMATICS
(3 CREDIT HOURS)

CLASSES MEETING TWO TIMES A WEEK

Lecture	Sections	Topics
1	---	Introduction & Review of Arithmetic
	3.1	Writing Decimals and Fractions as Percents
2	3.2	Finding Part
	3.3	Finding Base
3	3.4	Finding Rate
	3.5	Increase and Decrease Problems
4	16.3	Mean, Median, and Mode
5	6.1	Gross Earnings: Wages and Salaries
	6.2	Gross Earnings: Piecework and Commissions
6	---	Holiday/Catch Up
7	---	*Review for Test 1*
8	---	**Test 1**
9	6.3	Social Security, Medicare, and Other Taxes
10	13.1	Property Tax
	13.2	Personal Income Tax
11	13.2	Personal Income Tax *(continued)*
	13.4	Motor-Vehicle Insurance
12	13.4	Motor-Vehicle Insurance *(continued)*
	13.5	Life Insurance
13	---	Holiday/Catch Up
14	---	*Review for Test 2*

Lecture	Sections	Topics
15	---	**Test 2**
16	7.1	Invoice and Trade Discounts
	7.2	Single Discount Equivalents
17	7.3	Cash Discounts: Ordinary Dating Methods
18	8.1	Markup on Cost
	8.3	Markdown
19	9.1	Basics of Simple Interest
	9.2	Finding Principal, Rate and Time
20	---	*Review for Test 3*
21	---	**Test 3**
22	10.1	Compound Interest
	10.3	Present Value and Future Value
23	11.1	Annuities and Retirement Accounts – **Objectives 1 & 2 only.**
24	11.2	Present Value of an Ordinary Annuity
25	11.3	Sinking Funds (Finding Annuity Payments)
26	12.2	Installment Loans
27	12.4	Personal Property Loans
28	12.5	Real Estate Loans
29	---	*Review for Test 4*
30	---	**Test 4**

Lecture	Sections	Topics
31	---	**Finals Week Presentations**
32	---	**Finals Week Presentations**

Self-Study Assignments & Finals Week Presentation

- In lieu of a final exam students will be assigned four self-study assignments (listed below).
  - **Assignment 1:** Section 16.2: Frequency, Distribution and Graphs *(suggested assignment date: Week 1)*
  - **Assignment 2:** Section 5.3: Bank Statement Reconciliation *(suggested assignment date: After Test 1)*
  - **Assignment 3:** Section 6.4: Income Tax Withholding *(suggested assignment date: After Test 2)*
  - **Assignment 4:** Section 12.1: Open-End Credit and Charge Cards *(suggested assignment date: After Test 3)*
- Students are expected to learn the material on their own and turn in *some work* for grading. The *work* that will be graded is determined by the instructor and it can either be a written assignment (a few problems from the exercise at the end of the assigned section in the textbook, for example) or a MyLab Math assignment.
- For each self-study assignment there is a *sample assignment* located in the **MAT 1120 Resources** *folder* under the **Content** *tab* in the **Mathematics Community Group** in **eLearn**.
- During *finals week* each student must give a presentation on *something* from the self-study assignments. The instructor will determine the details for the presentation. *However, since it is possible that a class is still "full" during finals week (32 students), each presentation should be about 4-5 minutes in length (150 minutes ÷ 32). For example, students may be asked to present the solution of a problem that they did in one of the self-study assignments.*

CLASS SCHEDULE FOR COURSE IN
MAT 1120 – BUSINESS MATHEMATICS
(3 CREDIT HOURS)

12-WEEK TERM

Week	Sections	Topics
Week 1	---	Introduction & Review of Arithmetic
	3.1	Writing Decimals and Fractions as Percents
	3.2	Finding Part
	3.3	Finding Base
	3.4	Finding Rate
	3.5	Increase and Decrease Problems
Week 2	16.3	Mean, Median, and Mode
	6.1	Gross Earnings: Wages and Salaries
	6.2	Gross Earnings: Piecework and Commissions
	---	Holiday/Catch Up
Week 3	---	*Review for Test 1*
	---	**Test 1**
	6.3	Social Security, Medicare, and Other Taxes
Week 4	13.1	Property Tax
	13.2	Personal Income Tax
	13.4	Motor-Vehicle Insurance
	13.5	Life Insurance
Week 5	---	Holiday/Catch Up
	---	*Review for Test 2*
	---	**Test 2**
Week 6	7.1	Invoice and Trade Discounts
	7.2	Single Discount Equivalents
	7.3	Cash Discounts: Ordinary Dating Methods
	8.1	Markup on Cost
	8.3	Markdown

Week	Sections	Topics
Week 7	9.1	Basics of Simple Interest
	9.2	Finding Principal, Rate and Time
	---	*Review for Test 3*
	---	**Test 3**
Week 8	10.1	Compound Interest
	10.3	Present Value and Future Value
	11.1	Annuities and Retirement Accounts – **Objectives 1 & 2 only.**
Week 9	11.2	Present Value of an Ordinary Annuity
	11.3	Sinking Funds (Finding Annuity Payments)
	12.2	Installment Loans
Week 10	---	Holiday/Catch Up
	12.4	Personal Property Loans
	12.5	Real Estate Loans
Week 11	---	*Review for Test 4*
	---	**Test 4**
Week 12	---	**Finals Week Presentations**

Self-Study Assignments & Finals Week Presentation

- In lieu of a final exam students will be assigned four self-study assignments (listed below).
  - **Assignment 1:** Section 16.2: Frequency, Distribution and Graphs *(suggested assignment date: Week 1)*
  - **Assignment 2:** Section 5.3: Bank Statement Reconciliation *(suggested assignment date: After Test 1)*
  - **Assignment 3:** Section 6.4: Income Tax Withholding *(suggested assignment date: After Test 2)*
  - **Assignment 4:** Section 12.1: Open-End Credit and Charge Cards *(suggested assignment date: After Test 3)*
- Students are expected to learn the material on their own and turn in *some work* for grading. The *work* that will be graded is determined by the instructor and it can either be a written assignment (a few problems from the exercise at the end of the assigned section in the textbook, for example) or a MyLab Math assignment.
- For each self-study assignment there is a *sample assignment* located in the **MAT 1120 Resources** *folder* under the **Content** *tab* in the **Mathematics Community Group** in **eLearn**.
- During *Week 12* each student must give a presentation on *something* from the self-study assignments. The instructor will determine the details for the presentation. *Depending on the number of students in the class it is reasonable to make each presentation about 4-5 minutes long. For example, students may be asked to present the solution of a problem that they did in one of the self-study assignments.*

Notes For The Instructor

1. A **Review of Arithmetic** worksheet has been prepared by the department for use during the *Review of Arithmetic part of the syllabus* on the first day of classes. Additional material from Chapters 1 & 2 of the textbook may be covered if time permits. The **Review of Arithmetic** worksheet is located in the **MAT 1120 Resources** *folder* under the **Content** *tab* in the **Mathematics Community Group** in **eLearn**.

2. Holiday/Catch-up Days have been included in the schedules to account for lost class days due to Holidays and/or for other unforeseen reason. If these class days are available then the instructor is expected to use the time to either catch-up or reinforce material in the syllabus.

3. MyLab Math is required in all sections of MAT 1120. The department will create MyLab Math Master Course Shells each semester which the instructor can copy, and customize as appropriate for his/her section. The Master Course Shells for the traditional sections will have 29 homework assignments; one *Review of Arithmetic* assignment, and one assignment for each of the 28 sections that make up the syllabus for the course. There will also be four additional assignments for the four self-study sections that will not be assigned (by default). Information about the master shells will be sent to instructors (via email) prior to the start of the semester and will also be placed in the **MAT 1120 Resources** *folder* under the **Content** *tab* in the **Mathematics Community Group** in **eLearn** .

4. There are two packets of *Formulas & Tables* that students must be allowed to use during **Test 2** & **Test 4**. These packets are is located in the **MAT 1120 Resources** *folder* under the **Content** *tab* in the **Mathematics Community Group** in **eLearn.**   Printed copies of these packets will also be available in the Department Office (room 1-341). Students are not allowed to write on theses. Please return the printed table packets to the Department Office when you are finished using them, and please be sure they are free of markings.

5. The instructor can allow students the *use* of a *formula sheet* during the four tests. Sample formula sheets ae available the **MAT 1120 Resources** *folder* under the **Content** *tab* in the **Mathematics Community Group** in **eLearn**.