## Math 1100 - 001: Business Math

Fall 2014 Monday, Wednesday, & Friday 8AM - 8:50 AM BIC 2809 Dr. Matt Wechter Office: BIC 3605A Email: wechterm@cod.edu Phone: (630) 942-4405 Office Hours: Monday & Wednesday: 9AM - 11AM, 3PM - 4PM, Tuesday & Thursday: 10:30AM - 11:30AM, Friday: 9AM - 10AM

<u>Text and Materials</u>: Business Mathematics Brief Edition, 12th ed. by Clendenen, Salzman, Miller (online copy through MyMathLab), A calculator which contains a power (exponent) function

<u>Course Content</u>: Applications of mathematics to business transactions, analysis and solution of the business problems in profit and loss, interest, installment transactions, percent discounts, and payroll

## Course Goals:

- 1. Demonstrate competency in arithmetic computations
- 2. Solve linear equations and formulas for a specified variable
- 3. Compute the gross earnings, withholding amounts, and net earnings in a payroll setting
- 4. Calculate sales tax, property tax, and personal income tax
- 5. Compute the trade and cash discounts on an invoice and compute the markup and markdown on merchandise
- 6. Solve word problems involving the basic percent problem, simple and compound interest, and bank discount
- 7. Calculate the future value and present value of an ordinary annuity and the periodic payment into a sinking fund
- 8. Compute the Annual Percentage Rate of a loan, unearned interest, and monthly payments for loans
- 9. Demonstrate competency in the use of a calculator to perform basic computation

<u>Classes</u>: Students are expected to attend class and are responsible for all material covered in each class. Quizzes and exams will be held during class time. A final exam will be administered during finals week.

**Homework**: Homework will be assigned every week on MyMathLab. It is only for the student's benefit to complete the homework in order to do well on quizzes and exams. Students need to spend time and at least attempt every assigned homework problem to master the material and be prepared for quizzes and exams. Homework problems may appear on quizzes and exams and students who complete more homework assignments will do better on quizzes and exams.

**Quizzes:** Quizzes will be given every week and will only consist of one or two problems. They should take no more than 10 minutes and are intended as a "spot check" for students to know how well they understand the material. They may be administered at the beginning, middle or end of class and might be on any class day. At least 2 of the lowest quiz grades will be dropped when computing the final grade. Calculators may be allowed on quizzes and students will be warned in advance when to bring their calculators to class.

**Projects**: There will be at least two projects assigned this semester. One will be a semester-long project that will require periodic presentations to the class. This will be assigned in the first few weeks and will culminate in a report due at the end of the semester. Any other projects will be short-term in length.

**Exams**: There will be four (4) midterms and a final exam given in the course. All exams will be comprehensive and students should expect to be asked about all material leading up to that exam. The midterms will be taken in-class and will take up the entire class period. No new material will be covered on exam days. No cell phones or computers will be allowed at all at a student's desk during the exam. Calculators may be allowed. Any conflicts of exam dates must be discussed with the instructor at least one full day prior to the exam date.

## Grading:

Quizzes	100 Points
Projects	100 Points
Exams	100 Points Each
Final Exam	200 Points
Total	800 Points

In general,

А	В	С	D	F
720 and up	640 - 720	560 - 640	480 - 560	Below 480

**Written Style**: Student should practice and use good style when answering problems. That means that any answer which requires an explanation should be written in complete sentences, all mathematical notation should be consistent and make sense, and anybody reading the solutions for the first time (namely, the grader) should have no confusion as to both the final answer and the work involved to get there. For example, "1 + 1 = 2" is a complete sentence. It has a subject (1 + 1), a verb (=) and an object (2).

Academic Integrity: Students should be aware of the Code of Academic Conduct and know the consequences should the code be violated. The document can be found at www.cod.edu/dept/boardpolicy/5050pr.doc.

Attendance Policy: Students are expected to attend every class and to understand material for classes they miss. NO exam will be given after the exam day and quizzes cannot be made up (because some quizzes will be dropped anyway). If a student has a valid excuse with a valid written note explaining the emergency (at the instructor's discretion) for missing an exam, then a grade on a future exam may count towards the missed exam as well. This is not an ideal situation and should be avoided. Do not miss class! While in class, students should be respectful of other students as well as the instructor. Students should not distract others with their computers or cell phones. Any distractible cell phone use should be done outside the classroom.

<u>Center for Access and Accommodations</u>: Students who require any type of special accommodations for access and participation in this course must be registered with the Center for Access and Accommodations, SSC 3249.

## Tentative Course Calendar

Monday	TUESDAY	WEDNESDAY	THURSDAY	Friday
Aug 25th 1	26th	27th 2	28th	29th <b>3</b>
Introduction,		Fraction Review		Decimals as
Fraction Review:		Continued: $\S2.1-2.4$		Percents, Parts:
§2.1-2.4				<u>33.1-3.2</u>
Sep 1st	2nd	3rd <b>4</b>	4th	5th <b>5</b>
Labor Day		Finding Base,		Increase and
		Finding Rate:		Decrease Problems:
		33.3-3.4		33.0
8th 6	9th	10th <b>7</b>	11th	12th 8
Solving Equations,		Applications of		Business Formulas:
§4.1		Equations: §4.2		§4.3
15th 9	16th	17th <b>10</b>	18th	19th <b>11</b>
Ratio and		Exam Review		Exam 1
Froportions: 34.4				
22nd 12	23rd	24th <b>13</b>	25th	26th <b>14</b>
Wages and Salaries:		Piecework and Commissions: 86.2		Income Tax, Social Socurity Modicaro
30.1				etc.: $\S6.3 - 6.4$
				-
29th 15	30th	Oct 1st 16	2nd	3rd 17
Invoice and Trade		Series versus Single		Ordinary Dating
Discounts. 31.1		Discounts. 31.2		Methods. 37.5
	7.1	0.1 10	0.1	10/1 00
oth 18 Other Dating	7th	8th 19 Cost Markup, 88.1	9th	10th 20
Methods: §7.4		Cost Markup. 30.1		Markup and
				Markdown: §8.2-8.3
13th <b>21</b>	14th	15th <b>22</b>	16th	17th <b>23</b>
Turnover and	1 1011	Exam Review	10011	
Inventory				Exam 2
Valuation: §8.4				
20th 24	21st	22nd <b>25</b>	23rd	24th <b>26</b>
Simple Interest:		Manipulating the		Simple Discount
§9.1		Interest Formula:		Notes: §9.3
		§9.2		
27th <b>27</b>	28th	29th <b>28</b>	30th	31st <b>29</b>
Discounting a Note		Compound Interest		Present and Future
Before Maturity:		and Inflation:		Value: §10.3
39.4		§10.1-10.2		

Monday	TUESDAY	WEDNESDAY	THURSDAY	Friday
Nov 3rd 30	4th	5th <b>31</b>	6th	7th <b>32</b>
Annuities and Retirement Accounts: §11.1		Present Value of an Ordinary Annuity: §11.2		Sinking Funds: §11.3
10th <b>33</b>	11th	12th <b>34</b>	13th	14th <b>35</b>
Stocks, Mutual Funds, & Bonds: §11.4-5		Exam Review		Exam 3
17th <b>36</b>	18th	19th <b>37</b>	20th	21st <b>38</b>
Open-End Credit and Charge Cards: §12.1	Last Day to Withdraw	Installment Loans: §12.2		Early Payoffs of Loans: §12.3
24th <b>39</b>	25th	26th	27th	28th
Personal Property Loans: §12.4		College Open No Classes	Thanksgiving Recess	Thanksgiving Recess
Dec 1st 40	2nd	3rd 41	4th	5th <b>42</b>
Property Tax: §13.1		Personal Income Tax: §13.2		Exam Review
8th 43	9th	10th <b>44</b>	11th	12th <b>45</b>
Exam 4		Conclusion, Projects Due, Assessments		Final Review
15th 46   Final Exam 8:00 - 9:50   BIC 2809 8:00 - 9:50	16th	17th 47	18th	19th <b>48</b>