



**COWLEY COLLEGE  
& Area Vocational Technical School**

**COURSE PROCEDURE FOR**

**BUSINESS MATHEMATICS  
BUS 1330 3 Credit Hours**

**Student Level:**

This course is open to students on the college level in either the Freshman or Sophomore year.

**Prerequisites:**

None

**Controlling Purpose:**

The purpose of Business Mathematics is to provide students with basic business calculation principles necessary to enter and progress in positions in business. Skills are applicable to computations, reasoning, and problem solving actually used on the job and in their personal lives.

**Learner Outcomes:**

Business mathematics skills will be developed and improved so that the student can perform with accuracy the necessary calculations required by business and in their personal lives.

**Unit Outcomes and Clock Hours of Instruction for Core Curriculum:**

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

**Evaluation Key:**

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the goals of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.
- D = A few of the major goals have been achieved, but the student's achievement is so limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

## WHOLE NUMBERS AND DECIMALS

Outcomes: Upon completion of this unit, students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Review fundamentals of math.
						Demonstrate proficiency in addition, subtraction, multiplication, and division of whole numbers and decimals without the calculator.
						Apply mathematics for solving word problems.
						Estimate appropriate answers.

## FRACTIONS

Outcomes: Upon completion of this unit, students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Review fundamentals of math.
						Recognize types of fractions. Convert mixed numbers to improper fractions. Convert fractions to mixed numbers. Find least common denominators for fractions.
						Demonstrate proficiency in addition, subtraction, multiplication, and division of fractions and mixed numbers.
						Convert fractions to decimals and decimals to fractions.

## PERCENT

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Convert numbers between forms expressed as fractions, decimals and percents.
						Determine the three elements of a percent problem and ability to solve for base, rate and part.
						Identify increase and decrease problems and solve for correct answer.
						Estimate appropriate answers.
						Perform addition, subtraction, multiplication, and division with decimals and percentages on the calculator.
						Interpret, analyze, and solve word problems related to business situations.

**BANK SERVICES**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Demonstrate a working knowledge of parts of a check, types of checking accounts.
						Calculate monthly service charges.
						Identify parts of a deposit slip and checkstub.
						Correctly complete a check register.
						Complete deposits with credit card transactions.
						Calculate interest in interest paying checking plans.
						Reconcile a bank statement with a check book.
						Interpret, analyze, and solve word problems related to business situations.

**PAYROLL**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Demonstrate correct procedure to figure gross earnings for salaries and hourly wages including overtime.
						Determine gross earnings for piece work, commissions and salary plus commission combinations.
						Determine FICA tax, Medicare tax and disability deductions for wages and salaries.
						Determine federal and state withholding tax from salaries and wages using appropriate procedures.
						Find net pay given gross pay figuring all deductions.
						Find quarterly amounts due the I.R.S.

**MATHEMATICS OF BUYING**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Demonstrate a working knowledge of invoice completion, terms and shipping terms.
						Calculate series discounts.
						Demonstrate working knowledge of math functions to figure discounts, net amounts and list price.
						Calculate discount date, due date, and amount of payment of an invoice.
						Determine credit given on a partial payment of an invoice.
						Select the most beneficial discount terms for an invoice.
						Interpret, analyze, and solve word problems related to business situations.

**MATHEMATICS OF SELLING**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Demonstrate a knowledge of pricing policies and terms.
						Calculate markup as a percentage of cost.
						Calculate markup as a percentage of retail selling price.
						Calculate markdowns on merchandise.
						Determine terms associated with loss.
						Calculate net profit, break-even, operating loss and absolute loss associated with selling.
						Calculate turnover of inventory.
						Determine inventory using weighted average, FIFO and LIFO.
						Interpret, analyze, and solve word problems related to business situations.
						Perform mathematical computations related to selling.

**SIMPLE INTEREST**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Demonstrate a working knowledge of terms and mathematical computations used in solving for simple interest.
						Calculate maturity value.
						Determine time involved in a loan in days, months and year methods.
						Find exact and ordinary interest.
						Solve for principal, rate, and time using given formulas.
						Calculate a discount and proceeds on a note.
						Interpret, analyze, and solve word problems related to business situations involving simple interest.
						Perform mathematical computations as applicable for notes and simple interest.

**COMPOUND INTEREST**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Determine compound interest using formulas and tables.
						Using tables, determine interest on daily compounding and time deposit accounts.
						Define present value and calculate present value using tables.
						Define passbook, savings, and other interest bearing accounts.
						Define time deposit accounts.
						Examine the effect of inflation on spendable income.
						Use future value and present value to estimate the value of a business.
						Interpret, analyze, and solve word problems related to compound interest.

**BUSINESS AND CONSUMER LOANS**

Outcomes: Upon completion of this unit, the students will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Define open-end credit and revolving charge accounts.
						Determine installment cost and finance charge. Find APR, using given tables.
						Solve partial loan payoffs using the United States Rule and the Rule of 78.
						Determine monthly home payments, repayment schedules and impound accounts on real estate loans.
						Interpret, analyze, and solve word problems related to business and consumer loans.

**Projects Required:**

As assigned.

**Textbook:**

Contact Bookstore for current textbook.

**Materials/Equipment Required:**

Calculators

**Attendance Policy:**

Students should adhere to the attendance policy included in the syllabus.

**Grading Policy:**

Grading may vary according to the instructor.

**Criterion Based Evaluation:**

Assignments

Tests

Final Exam

Letter grades will be assigned according to the following scale:

100 - 90 = A

89 - 80 = B

79 - 70 = C

69 - 60 = D

59 or below = F

**Maximum class size:**

Based on classroom occupancy.

**Course Timeframe:**

Total clock hours per week: 3

**Catalog Description:**

BUS 1330 BUSINESS MATHEMATICS 3 hrs. This course is designed to provide students with basic business calculation principles necessary to enter and progress in positions in business. The student will work with decimals, fractions, percentages, payroll, banking services, math of buying and selling, simple and compound interest, and business and consumer loans.

**Academic Code of Conduct:**

Cowley College is committed to instilling in its students a high level of academic integrity. Integrity in the classroom is a definite expectation. Students who compromise the integrity of the academic process are subject to disciplinary action by the college.

A violation of academic integrity includes but is not limited to:

- Plagiarism
- Cheating
- Fabrication and Falsification
- Multiple Submission
- Misuse of Academic Materials

- Complicity in Academic Dishonesty

**If a student is ever in doubt about the specific guidelines governing individual or group work with respect to a particular course or assignment, be sure to ask the instructor for clarification.**

### **XF Grade**

In accordance to the Academic Code of Conduct, an XF grade may be given to:

1. Students who are guilty of academic misconduct on tests or major assignments.
2. Students who knowingly facilitate classmates in academic misconduct on tests or major assignments (will be based upon the decision of the Appeals Committee).
3. Students who commit repeat violations of the Academic Code of Conduct on any class assignments.

**The Academic Code of Conduct will be used to define academic misconduct.**

If an instructor determines a student should receive an XF grade:

1. The instructor will meet with the student and follow the Academic Code of Conduct to ensure that the student has an initial opportunity to respond.
2. If the instructor still believes the student should receive an XF grade, the instructor will notify the Instructional Office and complete an XF form.
3. The student will then be notified of his/her right to appeal by the Appeals Committee, which will be scheduled as needed.
4. If the student chooses to appeal the X portion of the grade, the Appeals Committee will have the final authority.
5. The student will have the opportunity to remain in the class until the appeal process has been completed. Formal withdrawal from the class will not prevent the student from receiving a grade of XF.
6. A student may not withdraw from a class after receiving a grade of XF.
7. The decision of the Appeals Committee will be the final decision. The student, teacher, and advisor will be notified within 4 business days

To have the first XF grade removed from his/her transcript, the student must perform 20 hours of community service and successfully complete a course on academic honesty by the end of the following semester. The community service will be arranged through A.C.E.S. and will be completed at the discretion of the A.C.E.S. sponsor. The course will be for 1 credit hour at the student's expense with no financial aid or scholarship assistance. The Instructional Office may keep internal records that show the student received an XF grade that was later converted to an F after completion of the required community service and short course on academic honesty.

If a student receives an XF grade for a second time, that grade will remain on his/her transcript with no opportunity for removal. An XF grade cannot be erased from the Academic Fresh Start program.

### **Academic Misconduct**

### First Level Resolution

The original jurisdiction of any case involving academic misconduct shall be with the faculty member whose course the alleged misconduct occurred. If a faculty member suspects a student of an academic misconduct, he/she must inform the student without unnecessary delay of the alleged misconduct and provide the student the opportunity to respond before taking any action. Students suspected of academic misconduct, whether acknowledging involvement or not, shall be allowed to continue the course without prejudice pending disciplinary actions. If the faculty member takes no action within 10 days after informing the student, the allegations shall be considered dismissed.

The faculty member may take one or more of the following actions: alter a grade or assign a grade of "F" in the assignment, examination, or the course and/or recommend an additional sanction up to and including suspension and/or dismissal from the course. The action taken by the faculty member should be reported to their Department Chair/Director and the Instructional Office. The student so affected shall have the right of appeal through the Vice President of Academic and Student Affairs.

### Second Level Resolution

If a second offense of academic misconduct occurs during the student's academic career, this WILL result in administrative withdrawal from the institution for a period of one academic year. The student so affected shall have the right of appeal through the Vice President of Academic and Student Affairs.

### Third Level Resolution

After one academic year the affected student may re-enroll with the understanding if a violation of the Academic Code of Conduct occurs during their tenure at Cowley College the result will be permanent expulsion from the institution with no right of appeal.

(Institutional Policies: Student Affairs Council: Series 400.00: 402.00 Academic Code Of Conduct)

### **Disability Services Program:**

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If you have a disability which may impact your work in this class and for which you require accommodations, please contact Mark A. Richardson, the Disability Services Coordinator, located in the Nelson Student Center Room 203 in order for arrangements of needed accommodations. Phone number: Main Campus - 620-441-5557 or North Campuses - 316-554-2724.

E-mail: [richardson@cowley.edu](mailto:richardson@cowley.edu)

### **Grade Change/Appeal:**

If a student is dissatisfied with a course grade issued by an instructor and believes the grade issued is incorrect, the student may use the following appeal procedures:

- The student shall, within one academic semester following issuance of the grade, confer with the instructor and outline the reason(s) the student feels the grade is incorrect.
- The instructor shall advise the student of the grade change-if applicable.
- If the student is not satisfied with the results of the conference, he/she may request a Student Grade Appeal Form in the office of the Vice President of Academic and Student Affairs or the Dean of North

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Campuses. A review conference shall be held within the semester that the appeal is filed. The Vice President of Academic and Student Affairs, or their designee, the instructor who issued the grade, the Chairperson of the department or the Instructional Director involved or their designee will comprise the committee. The Vice President of Academic and Student Affairs will issue a decision and notify the student in writing within ten (10) days following the review. This decision is final.

(Institutional Policies: Academic Affairs Council: Series 200.00: 263.00 Student Appeal of Course Grade)

### **Student Code of Conduct**

Students attending Cowley College are expected to conduct themselves as responsible individuals at all times while on campus. Acts of incivility or other behavior which interferes with or detracts from the learning-centered environment are not acceptable. In addition, student actions which violate school policies or local, state, or federal laws are not tolerated and may result in dismissal from the college or other disciplinary action.

- **Intoxicating Beverages and/or Illegal Drugs:** No alcoholic or cereal malt beverages and/or illegal drugs shall be allowed on the campus or at school-sponsored functions.
- **Tobacco:** Smoking is not permitted in College facilities. This includes smokeless tobacco products.
- **Dress and Appearance:** Students are expected to be clean and dress within the limits of general trends of dress at this college. Additionally, dress must be in accordance with all laws pertaining to health, sanitation, and insurance. |
- **Classroom Expectations:** Students are expected to behave in a civil and professional manner in the classroom. Instructors shall not permit the continued presence of disruptive behavior in class.
- **Visitors and Children:** Only students who are enrolled in classes are allowed to attend. Children and visitors must have prior approval from administration to attend class sessions. While on campus children and visitors must adhere to all school policies. All children under the age of 16 must be under direct supervision of a parent or guardian while on campus.
- **Destruction of Property and/or Theft:** Students are expected to respect the rights and property of other students, faculty, staff, etc.
- **Student Identification Cards:** All enrolled students at Cowley College are required to obtain a student ID card. Students must carry their current ID card with them at all times on campus.
- **Electronic Devices:** Cellular phones, pagers and other electronic devices shall not be used in a manner that causes disruption in the classroom, library or within any college-owned or college-operated facilities. This includes abuse of cellular devices with photographic capability. Utilizing these devices for the purposes of photographing test questions or other forms of academic misconduct or illegal activity is prohibited, as is photographing individuals in secured areas such as lavatories or locker rooms. Taking photographs of any individuals against their will is strictly prohibited.

(Institutional Policies: Student Affairs Council: Series 400.00: 403.00 Student Code Of Conduct)