



Course Articulation Agreement Procedures and Provisions

BUS102 - Business Mathematics

5 Credits

Applications of quantitative reasoning and logic in business through a study of banking, discounts, commissions, markup, promissory notes, interest, taxes, insurance, payroll, depreciation and financial statements.

STUDENT PROCEDURES

1. Enroll in the required high school class.
2. Register for Tech Prep dual credit at www.bigbend.edu/techprep.
3. Register for the Tech Prep dual credit articulated course during the same academic year the high school class is completed. If a series of courses are involved in the articulation, students register for credit during the same academic year the last course in the series is completed. **Students cannot earn "retroactive credit" for courses taken in previous years.**
4. Earn a grade of 'B' (3.0) or better in all courses required under the articulation agreement.
5. Complete all required skills as identified on the competency profile.
6. If an exam or review of completed work is required under the terms of this agreement, students must receive a passing score (determined by college or industry certification) to earn college credit.

TEACHER PROCEDURES

1. Ensure all students receive a copy of the course syllabus outlining information about Tech Prep, the college course competencies, and the process required to earn college credit. See attached "College Tech Prep Notice to Students."
2. Hold students accountable for the same competency standard and course expectations as required by the college-equivalent course (*see competency list attached*).
3. If required for articulation, ensure students are prepared to take industry certification exams, complete a professional portfolio documenting their work, or take a final exam to measure their level of skill and competence in the coursework.
4. Submit final grades for all students registered to earn Tech Prep college credit **within 30 days** of high school course completion.
5. Attend scheduled meetings, workshops or in-service activities that enhance the high school/college partnership and support implementation of the Tech Prep articulated program.

ARTICULATION PROVISIONS

1. Tests must be given from the Deitz and Southam, Contemporary Business Math, 13th Edition test bank. BBCC will provide the test information to the high school.
2. Credits in this course can be applied to degree requirements in the following program:
 - Accounting Technology

COURSE COMPETENCIES

1. Use shortcuts and simplifications to perform the fundamental processes of addition, subtraction, multiplication, and division.
2. Estimate answers before performing mathematical operations.
3. Change improper fractions and mixed numbers.
4. Add, subtract, multiply, and divide fractions and mixed numbers.
5. Add, subtract, multiply, and divide decimals.
6. Apply formulas to solve rate, time, and distance problems.
7. Solve simple numerical equations.
8. Recognize numerical relationships in series.
9. Change percents to decimals.
10. Change decimals and fractions to percents.
11. Find Base, Rate, and Percentage using $R \times B = P$
12. Use percents to measure increase and decrease.
13. Use percents to allocate expenses such as overhead.
14. Compute sales commissions and gross pay.
15. Compute graduated sales commissions.
16. Compute sales and purchases for principals or commission agents.
17. Compute trade discounts and a series of trade discounts.
18. Compute the equivalent single discount rate for a series of trade discounts.
19. Compute the cash discounts and remittance amounts for fully paid invoices.
20. Compute cash discounts and remittance amounts for partially paid invoices.
21. Compute the variables in the basic markup formula of $\text{Cost} + \text{MUP} = \text{SP}$.
22. Compute the markup percent based on cost.
23. Compute the markup percent based on selling price.
24. Maintain a checking account.
25. Reconcile a bank statement with a checkbook balance.
26. Compute Social Security and Medicare tax amounts.
27. Compute federal income tax withholding amounts.
28. Compute an employee's gross pay, deductions, and net pay.
29. Compute sales taxes.
30. Compute assessed valuations and property taxes based upon assessed valuations.
31. Make basic computations to determine taxable income and the tax liability for taxpayers who use the standard federal income tax Form 1040.

32. Compute costs and insurance payments for auto, property, and life insurance.
33. Compute cash surrender and loan values for life insurance.
34. Compute simple interest with time in days (both 360 and 365 days), months, or years.
35. Compute the Principal, Rate, and Time variables using $I = P \times R \times T$.
36. Compute finance charges for credit account purchases.
37. Compute monthly payment on home mortgages using amortization payment tables.
38. Amortize loans.
39. Compute the number of interest days, the due date, and the maturity value of a promissory note.
40. Discount a promissory note.
41. Compute future values and compound interest using future value tables.
42. Compute present values using present value tables.
43. Perform horizontal analysis on basic financial statements (balance sheet, income statement).

College Tech Prep Notice to Students

The high school syllabus MUST include a notice to students indicating the course is Tech Prep approved and articulated with one or more colleges.

The following statement is a **sample** notice. You can use/modify the statement below to include in your syllabus:

Example:

This course is College Tech Prep approved and articulated with Big Bend Community College and the following program areas:

Accounting Technology
Business Medical Services and
Office Information Technology

Students, who demonstrate proficiency of the college course competencies with a 'B' (3.0) or better grade, may earn college credit through the Tech Prep dual credit registration process. The college competencies are attached to this syllabus. During the (semester/year) all competencies will be covered in class...some may require additional independent work by the student. To earn college credit students are required to pass a skill check/assessment with the high school instructor.

Students may earn credit for the following college course(s):

 BUS102 College Course Number **5** Credits

 Business Mathematics College Course Name