



Course: \_\_\_\_\_

Section: \_\_\_\_\_

Name: \_\_\_\_\_

Student#: \_\_\_\_\_

Date: \_\_\_\_\_

## BUS 140 Amortization Exercise (1%)

*You have purchased five properties in Victoria, BC. You have incorporated your business under the name YourName's Rental Properties. In this Case Study you are going to modify your rental list, analyze your income and prepare an amortization schedule for the loan that you have applied for in order to improve some of the properties that are rented.*

### 1) Open and Save the Worksheet

- a) Open the file **Amortization.xlsx**.
- b) Save it as **BUS140SecXXX Fname Lname Amortization.xlsx**.

### 2) Create a Loan Amortization Schedule

*Your properties are doing fine but you will not be covering all of your costs due to the fact that some are no longer rented. In order to rent them you must improve these properties, so you want to secure a small business loan. You will use the Loan sheet to complete the amortization schedule to see what your monthly payment will be, the amount of your monthly payment, which portion is interest or principal, the cumulative amount of interest/principal and total of all interest payments. See Figure 1 to verify your formula results.*

Use the Loan Worksheet to do the following:

- a) In C8 use an appropriate formula to calculate the monthly loan payment based on the variables listed above.
- b) In A13 use Autofill to fill in payment periods up to 120.
- c) In the adjacent cells, create the formulas to determine Monthly Payment, Interest, Cumulative Interest, Principal, Cumulative Principal and Balance to complete the table. (You may use various methods and formulas to accomplish this. You may use the method shown in the textbook or alternative methods that may have been shown in class.) Make sure to use absolute references where necessary!
- d) Adjust column widths as necessary to display all results.
- e) In C9 compute the total amount of interest paid on the loan at 120 months.
- f) Add the title YourName's Rental Properties at the top of the worksheet. Format all cells with appropriate formats, and make any other formatting adjustments you deem necessary.

### 3) Print the Workbook

- a) Create a custom footer for the Loan sheet with your name on the left and your course and section number on the right.
- b) Print the Loan worksheet displaying values (no gridlines; no row and column headings). Fit the results to 1 page wide by 3 pages tall. Save the workbook.
- c) Show the formulas and adjust column widths to make sure the full formula shows completely in the column. Show the gridlines and row and column headings. Fit the results to 1 page wide by 3 pages tall. Print the formulae, but only print Page 1.
- a) Submit the **BUS140SecXXX Fname Lname Amortization.xlsx** to your instructor's ~inbox and hand in your printouts (with these assignment pages stapled as the cover) to your instructor's dropbox.

Figure 1 – Amortization Schedule Function—Partial Results

	A	B	C	D	E	F	G
1	<b>YourName's Rental Properties</b>						
2							
3							
4		Loan Amount	\$100,000				
5		Interest Rate	7.00%				
6		Total # of Periods	120				
7							
8		Payment per Period	<b>\$1,161.08</b>				
9		Total Interest Paid	<b>\$ 39,330.18</b>				
10							
11							
12	<b>Period</b>	<b>Payment Amount</b>	<b>Interest</b>	<b>Cumulative Interest</b>	<b>Principal</b>	<b>Cumulative Principal</b>	<b>Balance</b>
13	1	\$1,161.08	\$583.33	\$583.33	\$577.75	\$577.75	\$99,422.25
14	2	\$1,161.08	\$579.96	\$1,163.30	\$581.12	\$1,158.87	\$98,841.13
15	3	\$1,161.08	\$576.57	\$1,739.87	\$584.51	\$1,743.38	\$98,256.62
16	4	\$1,161.08	\$573.16	\$2,313.03	\$587.92	\$2,331.31	\$97,668.69
17	5	\$1,161.08	\$569.73	\$2,882.77	\$591.35	\$2,922.66	\$97,077.34
18	6	\$1,161.08	\$566.28	\$3,449.05	\$594.80	\$3,517.46	\$96,482.54
19	7	\$1,161.08	\$562.81	\$4,011.87	\$598.27	\$4,115.73	\$95,884.27
20	8	\$1,161.08	\$559.32	\$4,571.19	\$601.76	\$4,717.49	\$95,282.51
21	9	\$1,161.08	\$555.81	\$5,127.01	\$605.27	\$5,322.76	\$94,677.24
22	10	\$1,161.08	\$552.28	\$5,679.29	\$608.80	\$5,931.56	\$94,068.44
23	11	\$1,161.08	\$548.73	\$6,228.02	\$612.35	\$6,543.91	\$93,456.09
24	12	\$1,161.08	\$545.16	\$6,773.18	\$615.92	\$7,159.83	\$92,840.17
25	13	\$1,161.08	\$541.57	\$7,314.75	\$619.52	\$7,779.35	\$92,220.65
26	14	\$1,161.08	\$537.95	\$7,852.70	\$623.13	\$8,402.48	\$91,597.52
27	15	\$1,161.08	\$534.32	\$8,387.02	\$626.77	\$9,029.25	\$90,970.75