

Accounting & Finance Department (COB) 2022 Assessment Report

NOTE: The College of Business (COB) holds AACSB accreditation, and the accounting programs hold an additional separate AACSB-Accounting accreditation. Assessment expectations for these accreditations are robust and examined on a 5-year cycle. AACSB evaluates on a program level rather than a department level. All accounting and finance programs are subject to the AACSB evaluation. As of fall 2022, we were three years into our 5-year accreditation cycle.

Our department offers three programs: BSBA-Accounting, BSBA-Finance, and Master of Accountancy.

| Degree Program | Included in COB | Included in Separate |
|-----------------|----------------------|-----------------------|
| | Undergrad Assessment | Accounting Assessment |
| | Program | Program |
| BSBA-Accounting | YES | YES |
| BSBA-Finance | YES | NO |
| MAcct | NO | YES |

MISSION STATEMENT

The Department of Accounting and Finance prepares ethically aware decision-makers with effective analytical and qualitative business knowledge and skills to become professionals in their respective fields. We commit to high quality teaching and applying scholarship to professional practice and theory.

The undergraduate accounting program prepares students to apply accounting and business knowledge and analytical skill and tools in dynamic organizations.

The mission of the Montana MAcct program is to provide breadth and depth in accounting, auditing, taxation, and business to develop a high level of technical knowledge, technology awareness, and leadership capability for advancement in the accounting profession and other related business careers.

PROGRAM LEARNING GOALS (PLG)

Undergraduate accounting or finance majors will:

- Learning Goal 1: Possess fundamental accounting or finance knowledge
- Learning Goal 2: Be effective writers
- Learning Goal 3: Critically analyze and solve problems, using technology where appropriate
- Learning Goal 4: Understand the importance of ethics to the accounting or finance profession and demonstrate ethical decision making.

Master of Accountancy students will:

- Learning Goal 1: Obtain a deeper mastery of technical accounting competencies to support preparation for CPA certification
- Learning Goal 2: Understand the role of the accounting profession in business and the economy, along with the importance of professionalism and ethics in carrying out this role
- Learning Goal 3: Communicate effectively through both written and verbal means
- Learning Goal 4: Demonstrate a high level of critical thinking skills

DEPARTMENT ALIGNMENT WITH PRIORITIES FOR ACTION (PFAs)

The A&F Department's objectives are guided by the COB Strategic Plan, adopted in 2018 and updated in 2022. AACBS requires our accounting programs to have a separate strategic plan, which aligns with the COB Strategic Plan. Below is a summary of objectives from the COB Strategic Plan, how A&F is impacted by select objectives, and how the objectives align to UM's PFAs. This only represents a sampling of how A&F aligns with UM's PFAs. Innovative or noteworthy objectives are noted.

COB Strategic Objective 1 – Keep Students at the Center of All We Do

- Initiate an application process for new business students students will be able to declare finance or accounting as their undergraduate major as freshmen; pre-major designations were created, and an early admit scholars program was launched. (PFA 1, PFA 5)
- Provide career readiness opportunities for all students accounting has a well-established mechanism to connect firms with students; finance strives to make better connection with employers, emphasizing career opportunities for women in a currently male-dominated field (e.g., Women in Finance panel). (PFA 1)
- Align business core curriculum with our value proposition accounting revamped its 200-level courses to enhance relevancy and highlight the opportunities for success in the profession; new core courses were created to integrate technology, managing people, and understanding business processes (PFA 1)

COB Strategic Objective 2 – Make Every Moment Meaningful

- Reinvent Introduction to Business (BGEN 105S) the course was overhauled to be more dynamic and broader in its exposure to the various business disciplines, including accounting and finance; the course is now required for all business majors (PFA 1)
- Collect data on DEI we need to understand if we are being inclusive of all types of students; COB is 60% male, and finance is 70% male; we need to understand how this and other imbalances impact those in the minority (PFA 1)
- Offer more integrated majors and certificates aligned with career tracks the accounting curriculum is built around a
 national licensure exam, but the finance major has more flexibility to offer electives from other majors/certificates
 (PFA 2)
- COB graduate programs present an untapped growth opportunity the graduate accounting program is a fifth-year program, challenged by a hot job market; we are exploring ways to better communicate the value proposition of the MAcct (PFA 2)
- Invest in flexible delivery the MAcct program has access to a Zoom room for the hybrid, synchronous delivery. Undergrad accounting courses are more difficult to deliver in the mode because they are problem-based; we need electronic whiteboards so we can work problems out in real-time with distance students (PFA 2 – INNOVATIVE/NOTEWORTHY)

COB Strategic Objective 3 – Cultivate and Communicate Relevant New Ideas

• Build a place for thought leadership to happen – accounting and finance research frequently is rooted on archival data sources that are expensive to purchase and maintain; we have lost access to these resources through budget cuts and need to get easier access to data to facilitate research (PFA 2)

COB Strategic Objective 4 – Steward Human, Financial, and Environmental Resources

• Reinvigorate the Sustainable Business Strategy Certificate – accounting firms are ramping up their ESG (environment, social, and governance) consulting and assurance practices; we need to take a leadership role in this space (PFA 4)

STUDENT LEARNING OUTCOMES and MEASUREMENT TOOLS (Items in *italics* – data collected and awaiting analysis)

| Student Learning Outcomes - UNDERGRADUATE | Stmt of Cash Flows | Budget Exercise | FSA Case | EY Case | Finance Problems | Tax Research Memo | Finance Case | GDP Case | Professional Ethics Questions |
|--|--------------------------|---------------------------|------------------------|-----------------------------------|--------------------------------------|-------------------------|----------------------|-------------------------------|-------------------------------------|
| Possess fundamental accounting or finance knowledge | ACTG 306 – Sp21 | ACTG 410 – Fa22 | | | | | | | |
| 2. Be effective writers | | | ACTG 307 – Sp21 | | | ACTG 401 – Fa22 | BFIN 424 - - Sp22 | | |
| Critically analyze and solve problems, using technology where appropriate | | ACTG 410- Fa21 Fa22 | | ACTG 310 – Fa22 (flowchart) | BFIN 322 – Sp22 (two problems) | | | BFIN 424 – Sp22 (Excel) | |
| Understand the importance of ethics to the accounting or finance profession and demonstrate ethical decision making. | | | | | | | | | ACTG 411 – Sp22 |
| Student Learning Outcomes - GRADUATE | Audience evals | Research Summary | Quiz Essay Question | MAcct Exit Exam | CPA Exam Pass Rates | | | | |
| 1. Obtain a deeper mastery of technical accounting competencies to support preparation for CPA certification | | Summery | | Sp21 Sp22 | 2020-2021 2021-2022 | | | | |
| 2. Understand the role of the accounting profession in business and the economy, along with the importance of professionalism and ethics in carrying out this role | | | ACTG 641 – fa21 | Sp21 Sp22 | | | | | |
| Communicate effectively through both written and verbal means | ACTG 641- Fa21 | ACTG 615 – Sp21 | | | | | | | |
| 4. Demonstrate a high level of critical thinking skills | Fa22 | | | Sp21 | | | | | |
| | | | | Sp22 | | | | | |

RESULTS and MODIFICATIONS

| UNDERGRADUATE - Student Learning Outcomes results [benchmarks are 75% except for using technology tools, which is 80%] | Modifications made to enhance learning |
|---|---|
| Statement of Cash Flows – Sp21 Students scored an average of 37.9 out of 40.0 possible points (94.75%), well above our benchmark of 75% | None |
| Budget Exercise – Fa21 Students scored 9.19/10.00 (91.9%) on Excel quality, well above our benchmark of 80% | None |
| Budget Exercise – Fa22 | None |
| Students scored 2.35/3.00 (78.3%) on cash to accrual part of exercise, above our benchmark of 75% Students scored 11.93/13.00 (91.8%) on Excel quality, well above our benchmark of 80% | |
| FSA Case – Sp21 [data collected and needs to be evaluated by accounting faculty – writing not separately evaluated when instructor graded the case] | N/A |
| Finance Problems – Sp22 100% of A&F majors (n= 13) completing two problems in an online section answered correctly. 67% and 11% of A&F majors (n=11) answered the problems correctly in the FTF course. | This was done as part of COB-wide assessment of problem- solving, with A&F major scores parsed out. The reason for the different results was not apparent, and the COB assessment committee plans to use another assessment approach in 2022-2023. We will follow A&F majors' results from that assessment once it is collected. |
| This is a mixed result. Flowchart – Fa22 | None |
| Students scored 39.0/40.0 (97.5%), well above our benchmark of 80% | None |
| Finance Case – Sp22 Case 2 (of 5) in BFIN 424 was graded for writing skills; 35% of the students were flagged for grammar or punctuation errors; this is below our benchmark | The instructor emphasized the importance of writing skills, and writing on subsequent cases improved to satisfactory levels. |
| Tax Research Memo – Fa22 [data collected and will be analyzed in sp23] | N/A |
| GDP Case – Sp22 | None |
| • 89% of students scored 80% or better on this case | |

| Professional Ethics Questions – Sp22 | None |
|---|---|
| | None |
| • Students scored 14.86/19.00 (78.2%) on the free | |
| response questions on Exam 2 | |
| • Students scored 76% on the multiple-choice | |
| questions on Exam 2 and the Final Exam | |
| | |
| Both results are above the benchmark. | |
| GRADUATE - Student Learning Outcomes results | |
| [benchmarks are 75% except for using technology tools which is 80%] | |
| Audience Evaluations of MAcct Presentations – fall 2021 | None |
| | |
| Avg verbal skills score=4.49/5.00 | |
| Avg nonverbal skills score=4.61/5.00 | |
| | |
| Students performed well above the benchmark of 3.5/5.0 | |
| Audience Evaluations of MAcct Presentations – fall 2022 | N/A |
| [data associate collected and will be an abased in earlier 2022] | |
| [data recently collected and will be analyzed in spring 2023] Research Article Summary – Spring 2022 [data collected and | N/A |
| will be analyzed spring 2023] | |
| Quiz Essay Question – Fall 2021 [data collected and will be | N/A |
| analyzed spring 2023] | |
| MAcct Exit Exam – sp21 | The exit exam tests material from all required courses. We |
| | have made changes to the administration to motivate |
| Prior to 2022, LG 1 was expressed as separate learning goals | students to take it more seriously (they can retake it if they |
| on technical accounting skills and preparation for the CPA | do not pass the first time; assessment measures are from |
| exam. When we combined those, we renumbered the | first attempts). In spring 2023, we will also set aside a |
| learning goals. Labels match current learning goals. | couple of days leading up to the exam for fall instructors to come review material. |
| LG1 = 71%, 70% (formerly LG 1 and LG 5) | |
| LG1 = 71%, 70% (tormeny LG1 and LG3) LG2 = 77% | |
| LG2 = 77% LG4 = 68% (formerly LG 3) | |
| | |
| Benchmark of 70% correct met on all but one LG. On LG4, | |
| no student answered one question correctly. Ignoring this | |
| outlier question, the results would be 73% on LG4. | |
| MAcct Exit Exam – sp22 | See above. A different instructor is teaching the course |
| | where the problematic question originates. We will monitor |
| • LG1 = 69% | performance in spring 2023. |
| • LG2 = 76% | |
| • LG4 = 63% | |
| Benchmark of 70% correct met on LG2, almost met on LG1, | |
| and not met on LG4. One question for LG4 had only one | |
| student answering correctly. Ignoring this outlier question, | |
| the results would be 70% on LG4. | |
| CPA Exam (20-21) vs. national average | First year of hybrid synchronous flex delivery; monitor next |
| | year; an unusually high number of students didn't pass any |
| REG exceeded the national pass rate | of the four parts, indicating a possible lack of commitment to |
| | the process in this group. |

| AUD, BEC, and FAR below the national average pass rates | |
|---|--|
| CPA Exam (21-22) vs national average AUD and BEC exceeded the national average pass rate | AUD and BEC improved compared to last year, exceeding the national pass rates; REG fell slightly compared to the national pass rate; FAR continues to be low. We are reworking the curriculum related to topics on FAR, and the |
| REG was slightly below the national average pass rate | 2024 CPA exam will change how this is tested. |
| FAR was below the national average pass rate | [NOTE: we cannot get details of which CPA exam questions were missed, as the exam administrators do not provide this information to candidates] |

FUTURE PLANS FOR CONTINUED ASSESSMENT

Undergraduate Program

- Develop rubric for writing skills and evaluate writing artifacts from
 - o ACTG 307 Sp21 FSA Case Memo
 - ACTG 401 Fa22 Tax Research Memo
 - BFIN class TBD from 2023-2024
- Evaluate Excel skills from
 - ACTG class TBD from 2023-2024
 - o BFIN class TBD from 2023-2024
- Evaluate LG 4 from
 - ACTG 411 Sp23 exam questions
 - o BFIN class TBD from 2023-2024
- Obtain COB undergrad assessment measures, parsed by major, to gain further insights into achievement of A&F learning goals

Graduate Program

- Select two artifacts to assess LG 1
 - o ACTG 6xx course TBD Spring 2023, Fall 2023 Develop rubric for writing skills and evaluate writing artifacts from
- Evaluate quiz essay question from ACTG 641 Fa22 exam
- Calculate audience evaluation scores from ACTG 641 –Fa22 public presentations
- Develop writing rubric and evaluate LG from
 - ACTG 615 Fa21 Research memo
 - ACTG 615 Fa23 Research memo
- Capture MAcct Exit Exam information in April 2023
- Capture CPA exam pass rates for 2022-2023

APPENDICIES

- 1. APPENDIX A Undergraduate Accounting Curriculum Map
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- 3. APPENDIX B Undergrad Finance Curriculum Map
- 4. APPENDIX D Finance Assessment Summary

APPENDIX A – Undergraduate Accounting Curriculum Map

[Because this program has separate AACSB accreditation, the curriculum is mapped to learning goals, AACSB content requirements, and AACSB technology skills requirements]

ACTG ACTG ACTG ACTG ACTG ACTG ACTG ACTG ACTG LEARNING GOALS 201 202 305 306 321 401 410 411 425 XX=heavy (analysis, XX ΧХ XX XX XX ΧХ Х ΧХ accounting knowledge х Х analysis) х х х х x=light ΧХ ΧХ XX ΧХ ΧХ ΧХ ΧХ ΧХ Х ΧХ х х х х х х х

evaluation) X=medium (application,

(remember, understand)

1. Possess fundamental

2. Be effective business writers

3. Critically analyze and solve problems, using technology where appropriate.

4. Understand the importance of ethics to the accounting profession and demonstrate ethical decision

AACSB CONTENT AREAS

The ability to identify issues and develop questions, apply appropriate analyses, interpret results, and communicate conclusions.

The roles accountants play in society to provide and ensure the integrity of financial, managerial, and other information.

The ethical and regulatory environment for accountants.

The critical thinking and analytical skills that support professional skepticism, risk assessment, and assurance of accounting information.

Internal controls and security.

Recording, analysis, and interpretation of historical and prospective financial and nonfinancial information.

Project and engagement management.

| х | x | Х | Х | х | Х | Х | Х | Х |
|----|---|----|----|----|---|---|----|----|
| | | | | | | | | |
| х | | Х | Х | х | | x | ХХ | Х |
| x | | | х | х | x | | xx | x |
| | | | | | | | | |
| | | | | х | х | | xx | |
| х | | | | XX | | | ХХ | |
| | | | | | | | | |
| ХХ | х | ХХ | ХХ | х | | Х | х | ХХ |
| | | | | | | | | |

| Tax policy, strategy, and compliance for individuals and enterprises. | | | | | | хх | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| International accounting issues and practices, including roles and responsibilities played by accountants in a global context. | | | x | | | | | x | |
| AACSB Technology Skills Requirements all programs | ACTG 201 | ACTG 202 | ACTG 305 | ACTG 306 | ACTG 321 | ACTG 401 | ACTG 410 | ACTG 411 | ACTG 425 |
| Application of specialized knowledge of accounting and b usiness in a global context (new) | | | | | | | | | |
| Information systems and business processes including data management, modeling, analysis, text analysis, predictive analysis, learning systems, or visualization (new) | | | | | x | | | | |
| Technology agility among leearnings and faculty should be developed, recognizing the need for cotinuial learning of new skills needed by accounting professionals (new) | | | | | x | | | | |

APPENDIX B – Undergrad Finance Curriculum Map

| | | | | | | elec | tive |
|--|-------------|-------------|-------------|------------------------------|-------------|-------------|-------------|
| LEARNING GOALS | BFIN 322 | BFIN 420 | BFIN 424 | BFIN 435 (429/4 39) | BFIN 450 | BFIN 301 | BFIN 473 |
| 1. Possess fundamental accounting knowledge | х | х | х | x | х | х | х |
| 2. Be effective business writers | | | x | | | | |
| 3. Critically analyze and solve problems, using technology where appropriate. | | хх | xx | xx | ХХ | | ХХ |
| 4. Understand the importance of ethics to the accounting profession and demonstrate ethical decision | x | | x | | | | хх |

XX=heavy (analysis, evaluation)

X=medium (application, analysis)

x=light (remember, understand)

APPENDIX C – Graduate Accounting Curriculum Map

[Because this program has separate AACSB accreditation, the curriculum is mapped to learning goals, AACSB content requirements, and AACSB technology skills requirements]

| Learning Goals | ACTG 610 | ACTG 615 | ACTG 616 | ACTG 631 | ACTG 641 |
|--|---------------------|-------------|---------------------|---------------------|-------------|
| Technical Accounting | х | Х | XX | XX | XX |
| Ethics & Prof Responsibility | х | XX | х | XX | XX |
| Communication Skills | х | х | | х | x |
| Critical Thinking | xx | х | х | xx | x |
| CPA Readiness | х | х | ХХ | ХХ | ХХ |
| AACSB Content Requirements MAcct | АСТ G 610 | ACTG 615 | ACTG 616 | ACTG 631 | ACTG 641 |
| More integrative, intensive learning than undergraduate education offers, including more advanced and in-depth learning in topics related to the accounting discipline and its context for business. | х | x | хх | хх | хх |
| Expanded understanding of professional responsibilities of accountants including the ethical and professional standards of the accounting profession. | x | х | x | хх | хх |
| Understanding of the strategic role accounting plays in business organizations and society. | х | хх | х | х | х |
| Advanced development of critical and analytical thinking skills in support of professional skepticism, as well as sound decision making and good judgment in uncertain circumstances. | х | х | хх | хх | хх |
| Integration of knowledge across fields and understanding of the accounting discipline from multiple perspectives. | хх | хх | | х | х |
| Approaches to framing problems and developing creative solutions to accounting issues using appropriate technology. | хх | х | х | хх | х |
| AACSB Technology Skills Requirements all programs | АСТ G 610 | ACTG 615 | АСТ G 616 | АСТ G 631 | ACTG 641 |
| Application of specialized knowledge of accounting and business in a global context (new) | x | | | | |
| Information systems and business processes including data management, modeling, analysis, text analysis, predictive analysis, learning systems, or visualization (new) | xx | | | | |
| Technology agility among leearnings and faculty should be developed, recognizing the need for cotinuial learning of new skills needed by accounting professionals (new) | хх | | | | |

XX=heavy (analysis, evaluation) X=medium (application, analysis) x=light (remember, understand)

APPENDIX D – Finance Assessment Summary

FINANCE LEARNING GOALS

- 1. Finance majors will possess fundamental finance knowledge necessary for employment in a professional finance position, including operating in global financial markets.
- 2. Finance majors will possess problem solving and critical thinking skills as applied to financial problem solving.
- 3. Finance majors will demonstrate the use of technological skills appropriate to a finance career. (combined with LG2)
- 4. Finance majors will demonstrate communication skills.
- 5. Financial majors will have an ethical awareness and demonstrate ethical decision making.

1. Fundamental knowledge is accumulated by receiving a passing grade in BFIN 322, the prerequisite course for most other finance courses. Additional finance knowledge is gained in the required finance courses. Knowledge of the investments industry in BFIN 420, knowledge of corporate finance in BFIN 429 and BFIN 439, now combined into one course BFIN 451, knowledge of financial markets and financial engineering in BFIN 424, and knowledge of international finance in the elective BFIN 473. No assessment other than receiving a passing grade in these courses is needed for this goal.

2. Problem solving and critical thinking are key skills gained in the finance curriculum. Every test in the finance courses attests to these skills. Some assessment in BFIN 322 has also been conducted. In Spring 2022 assessment of a small number of 322 students across two sections using different modalities found that 71% and 100% of finance students correctly calculated capital budgeting cash flows from a multiple choice question in a face to face class and an online class respectively. Only 14% of students in the face to face class correctly calculated the answer to a multiple choice integrated cash flow & NPV question although 100% of the finance students in the online class correctly answered the question.

For many students this is a difficult skill to develop. BFIN 410, the \$50,000 Portfolio class is a class taught by a broker from DA Davidson that allows students to research stocks and invest real funds donated by DA. This gives students excellent practice at honing their research skills and putting their problem solving and critical thinking ability to work. Many students also use internships to improve their skills. Cases in the banking class and exercises in investments do the same thing.

3. We also stress the use of technology. The corporate course(s) require the use of Excel spreadsheets to analyze corporate problems and in the BFIN 424 class we require 5 or 6 cases. Case 2 in Spring 2022 titled, "Spring 2022 Mini-Case 2 Deep Dive: The impact of interest rates and other variables on U.S. GDP:

Project Goal: Use the data (see the data tab) to determine if the term structure variable (T10Y2Y) and/or any others are useful predictors of GDP. Some of the data headings have explanations of the data.

Step 1: Condition the data provided to eliminate missing values (pretty easy).

Step 2: Conduct some exploratory data analysis (EDA) with Excel or Python to understand relationships between the variables and discuss/interpret your findings. Construct various graphs with Excel or Python that you think make sense to back up your analysis. Construct a correlation table. If you use Python (or R) a heatmap of the correlation table is very useful, but this is not required.

Step 3: Run a regression with GDP as the dependent variable and the unemployment rate, inflation rate, T10Y2Y, BBB Treasury spread and BBB Yield as the independent variables. Report the model goodness of fit and the coefficients and their significance.

Step 4: Draw conclusions about the impact of the term structure and other variables based on your findings.

Optional Step 5: Use Machine Learning (ML) techniques in Python or R (or Excel if you know how) with a train test split approach (supervised learning) to examine how well a linear regression model predicts GDP changes. Use a train test approach with 60% of the data used to calculate the coefficients and 40% used to perform an out of sample test. Explain if/how your results differ from your conclusions in Step 3.

Points

Step 1: 1 point

Step 2: 3 points

Step 3: 4 points

Step 4: 4 points

Optional Step 5: 4 points extra credit.

89% of students received an 80% score or better on this exercise which requires knowledge of working with data, using technology and critical thinking. The other cases require critical thinking, problem solving using technology and then communicating the results.

In BFIN 473 students must build spreadsheets that assess the risk to profits of foreign exchange movements on parent and subsidiary operations and suggest marketing and financial remedies to limit exposure to this risk. Students also construct profit scenarios to compare and contrast the effectiveness of options versus futures and forward hedges for a capital investment scenario.

4. BFIN 450, BFIN 429, BFIN 473 and BFIN 424 all have coursework that requires writing. In Spring 2021, Case 2 describing the use and implications of blockchain and bitcoin, 35% of students were flagged for incorrect grammar and punctuation. Dr. Costa routinely flagged student exercises for being excessively wordy and using poor grammar and punctuation. When I teach BFIN 473 I explicitly include grading points for writing quality on student case submissions. By the end of each semester most students have improved their writing quality to an acceptable level.

5. Ethics is mentioned in almost all finance courses, but it is rarely formally assessed. In BFIN 473 I include an international capital budgeting exercise that requires students to choose whether to make facilitation payments and/or 'good citizenship' payments as they choose to operate a multinational investment in a lesser developed or moderately developed country. I also provide a separate role-playing case where students must balance shareholder interests with local stakeholder interests in a lesser developed country that requires students to face choices such as nepotism and the use of child labor. In this role-playing case students may face serious consequences resulting from their choices which include job losses and jail time.