

For Academic Affairs and Research Use Only	
Proposal Number	
CIP Code:	
Degree Code:	

PROGRAM MODIFICATION FORM

Undergraduate Curriculum Council

Graduate Council

Modification Type: Admissions, Curricular Sequence, or Other

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

<p>Dr. Hrishikesh Desai Department Curriculum Committee Chair</p>	<p>12/2/2022</p>	<div style="border: 1px solid gray; background-color: #f0f0f0; height: 20px; width: 100%;"></div> <p>COPE Chair (if applicable)</p>	<p>12/1/2022</p>
<p>James Doering Department Chair</p>	<p>12/2/2022</p>	<div style="border: 1px solid gray; background-color: #f0f0f0; height: 20px; width: 100%;"></div> <p>Head of Unit (if applicable)</p>	<p>ENTER DATE</p>
<p>Melodie Philhours College Curriculum Committee Chair</p>	<p>12/6/2022</p>	<div style="border: 1px solid gray; background-color: #f0f0f0; height: 20px; width: 100%;"></div> <p>Undergraduate Curriculum Council Chair</p>	<p>ENTER DATE</p>
<div style="border: 1px solid gray; background-color: #f0f0f0; height: 20px; width: 100%;"></div> <p>Director of Assessment <i>(only for changes impacting assessment)</i></p>	<p>ENTER DATE</p>	<div style="border: 1px solid gray; background-color: #f0f0f0; height: 20px; width: 100%;"></div> <p>Graduate Curriculum Committee Chair</p>	<p>ENTER DATE</p>
<p>Jim Washam College Dean</p>	<p>1/3/2023</p>	<p><u>Len Frey</u></p> <p>Vice Chancellor for Academic Affairs</p> <p>ENTER DATE</p>	<p><u>3/3/23</u></p>
<div style="border: 1px solid gray; background-color: #f0f0f0; height: 20px; width: 100%;"></div> <p>General Education Committee Chair (if applicable)</p>	<p>ENTER DATE</p>		

1. Contact Person (Name, Email Address, Phone Number)

Dr. Hrishikesh Desai; hdesai@astate.edu ; 870-680-8316

2. Proposed Change (for undergraduate curricular changes please provide an 8-semester plan (appendix A), if applicable)

The accounting faculty propose to modify the existing Accounting with Data Analytics, MAcc by removing ACCT 5133 - Accounting Statistics, adding ACCT 5723 - Strategic Accounting Technologies II, updating ACCT 5183 to reflect the new name of Accounting Analytics II, and allowing students to pick one course from a list of three. The three courses are ACCT 5023 - Advanced Accounting and International Issues , Acct 5813 - Tax Accounting III , and ACCT 5803 – Information Technology Auditing and Control.

3. Effective Date

Fall 2023

4. Justification – Please provide details as to why this change is necessary.

Acct 5723 Strategic Accounting II focuses on developing technical data science skills for working with accounting data. The concepts of data analytics automation and visualization are taught within the context of accounting data domains and using more advanced general-purpose tools and technologies.

- **Polimeni and Burke (2021):** “New technological innovations must be integrated at both the undergraduate and graduate levels. Although many accounting departments may have started a piecemeal implementation of these topics, a complete curriculum review and restructuring is likely to be in order.”
- **The Tax Adviser (2022):** “Employers continue to emphasize a need for accounting graduates with an expert-level ability to analyze and interpret large amounts of data using current and emerging technologies.”
- **IMA Management Accounting Quarterly (2021):** “Grant Thornton LLP Grant Thornton LLP considers auditors’ proficiency with Excel and Access a minimum and expects experience with at least some of the following:
 - For automation: Alteryx, Automation Anywhere, Power Apps, Power Automate;
 - For analysis: R, Python, Power Query, other analytic packages; and
 - For visualization: Tableau, Power BI, and other visualization engines”
- **The IMA Management Accountant Competency Framework (2018)** indicates that “accountants should be able to not only interpret and use statistics, but also create models, and generate results themselves. The IMA Framework also identifies specific technology tools including spreadsheets, SQL, Python, and R.”
- **Dow, et al. (2021):** “Alteryx provides a tool for Descriptive, Diagnostic, Predictive, and Prescriptive Analytics; spatial analysis; and R and Python code embedded analysis.”
- **Zhang, et al. (2021):** Talk about how Alteryx is a great ETL tool that accountants need to learn.
- **Tech Target (2021):** Talks about how accounting giant, BDO LLP, boosted efficiency with Alteryx automation saved more than 100,000 work hours by automating repetitive tasks.
- **Institute of Chartered Accountants of England & Wales (2022):** “Python is the computer language of choice for accountants ... From an accountancy perspective, Python is most useful when working with data. It can essentially read any type, both structured and unstructured. It has powerful capabilities in data importation and manipulation – tasks like merging and recoding – as well as handling large amounts. Python skills have become increasingly important to support data analytics work.”
- **Towards Data Science (2022):** Talks about how accounting tasks can be automated with Python.

- **Strategic Finance (2022):** *“Alteryx is a viable option for accounting professionals who lack the time, desire, or need to learn Python or R ... AI and ML present exciting opportunities to transform the accounting profession for the better ... Python is the most popular language for ML work, given its flexibility and data-science arsenal.”*
- **Vasarhelyi and Rozario (2018):** *“RPA has already garnered interest from public accounting firms, particularly with respect to taxation, advisory, and assurance services. For example, a significant portion of tax activities, such as the calculation of book-tax differences and the preparation of tax returns, has been successfully automated by RPA software robots.”*
- **Accounting Today (2021):** *Robotic process automation has become a necessary technology for many accounting firms that are trying to achieve more efficiency as the staff becomes harder to find during the ongoing pandemic.*
- **Alteryx Embedded Python (2022):** <https://help.alteryx.com/20221/designer/alteryx-embedded-python>
- **Official statement from Anna Howard, CPA, Senior Manager of Academic Initiatives (ThisWayToCPA.com, 2022a):** *“Emerging technology is changing the nature of the accounting profession leading to less clicking, formatting, ticking and tying. Preparing accounting students for this evolving workplace requires a deeper understanding of data, technology and the processes associated with managing technology. The experiential environment of RPA development combined with the problem-solving challenges inherent to develop automation solutions challenged students in ways that were meaningful to them.”*

The above reasons have necessitated the creation of SAT II, which includes data analytics at an advanced level on accounting datasets using the Alteryx Analytics Automation tool (along with Python code embedded analysis) with a focus on ETL processes and RPA.

Enter text...

Bulletin Changes

Instructions

Please visit <http://www.astate.edu/a/registrar/students/bulletins/index.dot> and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.

*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.

URL FOR MAcc:

https://catalog.astate.edu/preview_program.php?catoid=4&poid=965&returnto=113

(BEFORE) Eligible students receive undergraduate and graduate credit for the following courses:

- ACCT 5023 - Advanced Accounting and International Issues Sem. Hrs: 3
- ACCT 5113 - Tax Accounting II Sem. Hrs: 3
- ACCT 5133 - Accounting Statistics Sem. Hrs: 3
- ACCT 5183 - Accounting Analytics Sem. Hrs:

The above is changed to:

(AFTER) Eligible students receive undergraduate and graduate credit for the following courses:

- ACCT 5023 - Advanced Accounting and International Issues Sem. Hrs: 3 or Acct 5813 Tax Accounting III or ACCT 5803 Information Technology Auditing and Control.
- ACCT 5113 - Tax Accounting II Sem. Hrs: 3
- ACCT 5183 - Accounting Analytics II Sem. Hrs: 3
- ACCT 5723 – Strategic Accounting Technologies II Sem Hrs: 3
-

(additional changes on next page)

(BEFORE) CURRENT PROGRAM REQUIREMENTS:

- ACCT 5023 - Advanced Accounting and International Issues **Sem. Hrs: 3**
- ACCT 5113 - Tax Accounting II **Sem. Hrs: 3**
- ACCT 5133 - Accounting Statistics **Sem. Hrs: 3**
- ACCT 5183 - Accounting Analytics **Sem. Hrs: 3**
- ACCT 6073 - Applied Professional Research **Sem. Hrs: 3**
- ACCT 6153 - Audit Analytics **Sem. Hrs: 3**
- MIS 6473 - Data Mining **Sem. Hrs: 3**
- MIS 6543 - Business Analytics **Sem. Hrs: 3**

(AFTER) NEW PROGRAM REQUIREMENTS:

- ACCT 5113 - Tax Accounting II **Sem. Hrs: 3**
- ACCT 5183 - Accounting Analytics II **Sem. Hrs: 3**
- ACCT 5723 – Strategic Accounting Technologies II **Sem Hrs:**
- ACCT 6073 - Applied Professional Research **Sem. Hrs: 3**
- ACCT 6153 - Audit Analytics **Sem. Hrs: 3**
- MIS 6473 - Data Mining **Sem. Hrs: 3**
- MIS 6543 - Business Analytics **Sem. Hrs: 3**
- **Select one of the following:**
 - ACCT 5023 - Advanced Accounting and International Issues **Sem Hrs: 3**
 - ACCT 5813 - Tax Accounting III **Sem Hrs: 3**
 - ACCT 5803 - Information Technology Auditing and Control **Sem Hrs: 3**

