

CYCLICAL PROGRAM REVIEW PROGRESS REPORT



PROGRAM(S): COMPUTING AND FINANCIAL MANAGEMENT (BCFM) FEBRUARY 2025

Program information: completed by AQUE Office

Previous review period:	2020-2021	Next review period:	2027-2028
Final Assessment Report (FAR)			
Internal Approval Date:	5/14/2024		
Link to FAR:	Final Assessment Report¹		

Signatures:

Please keep this document in Word version. We do require you to sign it or demonstrate your approval. If you have issues with signing a Word document, please confirm your approval by adding the following wording when you send back the document by email "I hereby approve the attached document." We will collect formal signatures at a later stage on a pdf version.

	Required	Signature	Date
Chair/Director	<input checked="" type="checkbox"/>	 James Thompson CFM Co-Director School of Accounting and Finance George Labahn CFM Co-Director David R. Cheriton School of Computer Science	12/20/2024
AFIW Chair	<input type="checkbox"/>		Click or tap to enter a date.
Dean	<input checked="" type="checkbox"/>		8/29/2025
AFIW Dean	<input type="checkbox"/>		Click or tap to enter a date.
AVPA	<input checked="" type="checkbox"/>		4/7/2025
AVPGSPA	<input type="checkbox"/>		Click or tap to enter a date.

Enrollment (past three years): completed by AQUE Office

¹ Please note this program's FAR was approved less than one year before this report was prepared, which could explain any limited progress made on the recommendations since the approval of the FAR.

Commented [ME1]: E-Signature from Dean received on August 29, 2025.

Fw: PR - Computing and Financial Management - For Deans Signature

Dana Hociung
To: Maysah Eid
Cc: Dean of Math

Confidential

Follow up. Start by Monday, September 1, 2025. Due by Monday, September 1, 2025.

PR - Computing and Financial Mgmt - UG - Feb.2025_For Dean Signature.docx
98 KB

Good morning, Maysah,

We are confirming that the Dean of Math approves the document. We will officially sig

Regards,
Dana

Dana Hociung
Executive Assistant to the Dean of Mathematics
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	BCFM - Honours
2024-25 (CURRENT YR)	219
2023-24 (LAST YR)	203
2022-23 (LAST 2YRS)	187

Based on Active Students Extract from Quest on February 10, 2025

Initiatives/Developments since the Final Assessment Report

In addition to existing efforts, such as the CFM LinkedIn group, several new initiatives have been undertaken in the last year. These activities have been positively received by CFM program graduates.

In October 2024, all CFM graduates were sent the state-of-the program newsletter. This new annual newsletter is intended to give alumni a touchpoint to understand what is new and happening in the program currently. The first version of the newsletter provided an overview of the program, in addition to curriculum updates. There was also considerable content shared about the creation and addition of three new courses, created with the new course code, CFM. These courses are [CFM 101 \(Introduction to Financial Markets and Data Analytics\)](#), [CFM 301 \(Financial Data Analytics\)](#), and [CFM 401 \(Topics in Financial Technology\)](#), which were first introduced to students who began their studies in fall 2022. The newsletter was used as an opportunity to connect with CFM alumni.

In October, one of the CFM Program Co-Directors was in New York City with staff from Alumni Relations in the School of Accounting and Finance (SAF). Working with the alumni engagement officer proved valuable for connecting and networking with current CFM alumni working there. CFM alumni in New York connect for dinner every three months, and it was nice for the CFM Co-Director to be able to join them for their next scheduled event to hear about their career and community-development in the area.

In November, alumni from 2014 and 2019 were afforded the opportunity to receive five and 10-year milestone pins, provided by the program. These professional-looking lapel pins were created with the support of the W Store on campus and included the CFM program logo, the UWaterloo crest, and a 5 or 10 to mark their time since graduation. This is a great way for CFM alumni to proudly display their program pride. The graduates that received the pins were enthusiastic and excited about the opportunity.

The CFM program has put forward a request for the development of a 2-million-dollar endowment fund with the Office of Advancement in the Faculty of Mathematics at the University of Waterloo to finance entrance scholarships for admitted students. Currently, the program receives funding for entrance scholarships from the School of Accounting and Finance and the Faculty of Mathematics but, the amounts are modest compared to other computer

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science and finance-related programs, especially considering the larger cost of tuition for the CFM program.

Progress update on Implementation Plan

RECOMMENDATION 1:

Adjust details around the program advisor role to improve links with other counselling staff; and to, if possible, improve the position salary grade to increase long-term retention of staff in this role; and to better support the program advisor in all aspects of the role.

Completed: ☐ Yes ☒ No ☐ Partially

Progress: Still in progress. There is no further action to report currently.

Next steps (if applicable): Co-Directors will work directly with relevant staff to restructure the role and salary of the CFM Program Manager.

Additional comments: N/A

RECOMMENDATION 2:

Continue offering one or more additional CFM-coded courses, including one to replace a 300 or 400-level computer science program course, with one that is more finance-computer science combined. Consider reducing the number of required courses to allow for more electives, even if from a "choose from" or "pick list", to give students more flexibility to develop or hone their interests in finance, computer science, or other. We feel it is important for each CFM graduate to be able to pursue graduate studies in computer science, finance, or both, if they wish and should they be given more opportunity. Choosing from more courses that allow them to develop the skills and preparation needed for each of these subject areas is aimed at supporting their post-graduate studies. Having said this, all graduates will need to have a core balance of finance and computer science courses and so while we aim to offer more flexibility, it is necessary to ensure that by opening electives for students that they continue to satisfy the core requirements needed to be successful in both disciplines.

Completed: ☐ Yes ☒ No ☐ Partially

Progress: Still in progress. There is no further action to report on currently.

Next steps (if applicable): In consultation with the Scientific Computing research group in computer science, we will review and study the feasibility of revising the scope and learning outcomes for the class, CS 476 (Numerical Computation for Financial Modelling), to make it a required course for CFM. New course topics will also be considered.

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We will review the current curriculum of the CFM program and investigate the feasibility of reducing the list of required courses while maintaining balance of computer science and finance courses.

Progress (As of October 30, 2025): In September 2025, the Faculty of Arts and the Faculty of Math adjusted the course approvals process for CFM to allow the program to put forward curriculum changes without the initial approval of the School of Accounting and Finance and the Cheriton School of Computer Science. These changes will allow CFM to form its own review committee, with a current student, to discuss changes to degree requirements and move forward changes more quickly. The plan is to discuss the addition of more CFM-specific courses and computer science electives with this group once the committee is formed. Currently, the intention is to not require [CS 476 \(Numerical Computation for Financial Modelling\)](#), as previously intended, but to strongly encourage students to take it to give them ownership of their elective choices but allow them to consider computer science and finance-combined courses; this will be shared out to current students in the December CFM newsletter. Right now, CS476 is only offered once a year and is typically taught by Statistics and Actuarial Science (SAF) professors and lecturers, due to CS teaching availability. Making it mandatory would possibly make scheduling tough for students in our already-structured plan and a CS focus cannot be guaranteed without one of these professors available to teach.

Another possible action we are considering is to create a new CFM course taught by computer science. It would be in computational statistic that is more CS focused and taught by someone like Professor Hachisuka with a Scientific Computing (SciCom) background. It would offer a better balance of the topics of finance and computer science in the core CFM courses, as CFM-specific courses are currently only taught by School of Accounting and Finance (SAF) professors. Professor Toshiya Hachisuka is currently working on offering CS 398 (course title forthcoming), which plans to be a computational statistics class, that would ideally become a regular 300-level CS course. Though, the creation of new classes is an ongoing discussion with the Cheriton School of Computer Science as new courses are being heavily vetted now.

Additional comments: N/A

RECOMMENDATION 3:

Ensure continuity of intellectual leadership in the program in the face of faculty retirements in the School of Accounting Finance (SAF) and computer science, by appropriate recruitment. This might include joint appointments of faculty across relevant units, including, but not necessarily limited to SAF and computer science.

Completed: ☐ Yes ☒ No ☐ Partially

Progress: Still in progress. There is no further action to report on currently.

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Next steps (if applicable): Investigate the possibility of a lecturer position in SAF that can teach CFM-related courses. Also investigate the possibility of a faculty position in computer science or the Faculty of Math that has a professional, teaching and/or research background in computer science and finance.

Progress (As of October 30, 2025): The hiring freeze has made hiring more difficult in the School of Accounting and Finance (SAF). An Assistant Professor was hired in 2023 to teach finance courses for CFM students but no further hires have occurred since then. This is an ongoing discussion but there has been no further movement since then.

Hiring in computer science is still going strong, though hiring is department specific. As there is no finance group in computer science, hiring within Scientific Computation (SciCom) is the closest fit. Our newest Co-Director, Professor Toshiya Hachisuka who began this role in January 2025, is part of this group, and so others could be hired on to support through this area. Discussions on cross-appointment between SAF and CS have not occurred recently though so this needs to be visited and Professor Hachisuka is now aware of this. He believes that if such an opportunity exists to cross-appoint that it would make sense to have this person also a part of SciCom. There have been no new hires to SciCom since 2020, with the inception of Professor Hachisuka to the School of Computer Science.

Additional comments: N/A

RECOMMENDATION 4:

Building strong ties and relationships with alumni relations in the Faculty of Mathematics (which represents computer science) and the School of Accounting and Finance, to keep in touch with students, post-graduation. This will be beneficial to keep track of graduates to stay connected to reach out for possible co-op and full-time hiring of current students and recent graduates. Staying in touch will also allow for meaningful engagement for them to share relevant industry trends and that will inform the evolution of courses and learning outcomes for the CFM program.

Completed: ☐ Yes ☐ No ☒ Partially

Progress: Several recent initiatives have been undertaken to engage CFM alumni, including travel, communication updates, and connections with advancement and alumni relations, as described in the initiatives/development section of the report.

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Next steps (if applicable): The Co-Directors and Program Manager will be working with alumni relations at the University level, the Faculty of Math, and the School of Accounting and Finance to build relationships with alumni and learn of further opportunities to connect.

Additional comments: N/A

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Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Adjust details around the program advisor role to improve links with other counselling staff and to, if possible, improve the position salary grade to increase long term retention of staff in this role and to better support the program advisor in all aspects of the role.	Co-Directors to work directly with relevant staff to restructure role and salary of CFM program manager.	This will be a joint effort between the co-Directors, Breean Belton (Supervisor, CFM Manager), and Tracy Williams (Administrative Officer, SAF). There will be resources required to implement changes, these resources will need to come from both the Faculty of Math and the Faculty of Arts.	Spring 2025 -2026
2.	Continue path to offering one or more additional CFM coded courses, including one which replaces a more detailed CS program course in the curriculum with a financially relevant computer science course. Consider reducing the number of required courses in order to allow for more electives, even if from pick lists, so as to allow students to develop their own interests. We feel it is important for each CFM graduate to be able to do graduate school in one of CS or Finance if they wish and plan toward it, but that it might not be reasonable to ensure that every graduate be prepared to do graduate work in both disciplines.	In consultation with the Scientific Computing group in CS, review and study the feasibility of revising the contents of CS 476 to make it a required course for CFM. New course topics will also be considered. Review the current curriculum of the CFM program. Investigate the feasibility of reducing the list of required courses while maintaining a healthy balance of computer science and finance.	It will be led by the CFM Program Manager and the co-Directors. It will involve faculty in the Scientific Computing group in CS. No immediate resources will be needed.	Spring 2025

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3.	Ensure continuity of intellectual leadership in the program in the face of faculty retirements in SAF and CS, by appropriate recruitment. This might include joint appointment of faculty across relevant units including but not necessarily limited to SAF and CS.	Investigate the possibility of a lecturer position in SAF that is able to teach CFM related courses. Also investigate the possibility of a faculty position in CS or Math Faculty that has a background in computer science and finance.	It will be led by the CFM co-Directors. It will involve discussion with administrators at the departmental and Faculty level. The outcome may require resources for faculty positions.	Spring 2025 -2026
4.	Better leveraging of UW or Faculty-level Alumni Relations teams to keep in touch with students post-graduation. This will be beneficial for CO-OP and post-graduation job placement and for better understanding industry trends and needs for continuous program improvement.	A number of recent initiatives have been undertaken to engage CFM alumni. Co-Directors and Program Manager to work with alumni relations at the University level, the Faculty of Math, and the School of Accounting and Finance.	This will be lead by the CFM Program Manager and co-Directors. Existing budget priorities will require an evaluation what activities are sustainable. Funds spent on alumni engagement initiatives are not available to support programming for current students.	Spring 2025 -2026

The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for the Implementation Plan.