White Paper on the Credit Hour

December, 2022
Rebecca Ropers, ACE Fellow, Macalester

Macalester College's recently approved strategic plan lays out a bold plan to envision a curriculum that will inspire current and future students. Key elements of this curriculum include: 1) the development of a four-year experience that connects and integrates learning experiences inside and outside the classroom; 2) a future-focused curriculum framed by curiosity, innovation, problem-solving, digital literacy, justice, sustainability, and global perspectives; 3) the redesign the academic calendar to center well-being and create time for reflection, integration of ideas, community connection and rest; and 4) the amplification of opportunities for experiential learning by strengthening partnerships and promoting community engagement, study away, entrepreneurship and employment opportunities.

As with other higher education institutions, Macalester's academic curriculum is organized using "credit hours." This way of framing curricula has been dominant for over a century and remains the expectation of accrediting bodies and the federal government through its regulations associated with financial aid. Given Macalester's desire to revise its curriculum in bold ways that inspire students, understanding the implications and constraints of the credit hour is an important part of the conversation. However, it is also important to note that other ways of organizing educational experiences exist. For example, alternative modes of measuring and reporting students' collegiate learning in the academic and social curriculum include those associated with learning outcomes or competency-based assessment, recognition of specific contributions (e.g., in roles that demonstrate leadership or unique contributions), or impact (e.g., in community engaged partnerships or academic presentations). This paper offers a brief history of the credit hour and poses questions associated with its continued use in an effort to inform Macalester's curriculum revisioning process.

Background/History

The Carnegie credit hour was developed in the early 1900s when Andrew Carnegie established a pension system for faculty whose institutions used the "standard unit" concept to measure high school experience, particularly in the context of college admissions practice (Laitinen, 2012; Silva & White, 2015). Specifically, Carnegie established the Carnegie Foundation for the Advancement of Teaching to administer pension funds to retiring faculty at institutions if they used high school "credits" as an admissions criterion. While Carnegie Credits were initially developed to assess the qualifications of high school students for admission, colleges and universities began to use the credit hour to establish faculty workloads as well (Laitinen, 2012; McMillan & Barber, 2020).

In some ways, the credit hour became a way of clarifying and standardizing the educational experiences being offered by colleges and universities (Silva & White, 2015). A credit hour was defined as the time a student spends with a faculty member in a given course of instruction or, more broadly, in a program of study. In 2010, the Federal Register specified that each credit was to represent "an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that is not less

than one hour of classroom or direct faculty instruction and a minimum of two hours of out of class work for each week for approximately fifteen weeks for one semester . . . or the equivalent amount of work over a different amount of time" (Federal Register, 2010). Additionally, the common expectation is that a Bachelor's degree would require 120 credits earned in this way. Given this expectation, institutions and accrediting bodies created common practices across higher education institutions as they related to the structure, breadth and depth of learning experiences (Schneider, 2012) in ways meant to make those experiences intelligible to students, faculty and external audiences. The primary focus was on the duration of the experience rather than the learning or competencies developed. Overtime, credit hours have been used to establish full-time status for the purposes of federal financial aid, program quality for purposes of accreditation, and faculty instructional responsibilities.

<u>Current Understandings of Credit Hours</u>

According to [Faegre Dinker](#) (2021)'s interpretation of Federal Guidance issued on July 1, 2021:
> The final regulations largely retain the previous definition of "credit hour," including time-based requirements relative to classroom instruction and other academic activities. The final regulations require that an institution's accrediting agency or State authorizing agency approve the amount of work determined by the institution as appropriate in meeting the requirement for a credit hour. Additionally, the Department's prior language that defined a credit hour, in part, as "an amount of work represented by intended learning outcomes and verified by evidence of student achievement" is modified to reference work defined by an institution that is consistent with commonly accepted practice in postsecondary education. Consistent with previous sub-regulatory guidance provided in Dear Colleague Letter GEN-11-06 (March 18, 2011), the final regulations further incorporate language clarifying that, in determining the amount of work associated with a credit hour, an institution may take into account a variety of delivery methods, measurements of student work, academic calendars, disciplines and degree levels" (Irani, Pheasant, et al., 2021).

This guidance also addresses "clock hours" and "academic year requirements" for institutions.

Critiques and new approaches to assessing student learning have emerged in the last 15 years, but educational leaders urge caution in moving away from the credit hour as the dominant mode of organizing student learning and degree programs. Silva and White (2015) point out that many different systems rely on understandings of the credit hour (federal financial aid, faculty workload, allocations of resources, etc.) and urge that innovations continue: "Rather than 'killing' the Carnegie Unit, today's innovators should use the credit hour for its intended purpose: as a tool to streamline operations and as a platform from which new models of higher education can be launched, tested, improved, and scaled" (p. 72).

One significant challenge to the credit hour conceptualization of learning has been the desire to use competency-based assessment. While the credit hour was an attempt to help various stakeholders organize the work of higher education, "the credit hour was not designed to document the quality or level of student learning" (Schnieder, 2012). As Carol Geary Schneider, then President of the Association of American Colleges and Universities, wrote: "The fact is that

the same number of credit hours is awarded regardless of whether students produce significant qualifying work or just perform adequately on multiple-choice exams. Students who have patched together the right number of credits in the right breadth-depth categories may, in practice, fall short when it comes to the integrative and adaptive learning that they need for work, civic participation, and life." Some educators have called for an assessment of competency rather than the amount of time supposedly spent interacting with course material (Laitinen, 2012). Some institutions - such as Southern New Hampshire University, Northern Arizona University, and Western Governers University - have moved toward assessing competencies.

Some argue that when paired with grades, credentials based on existing credit hour understandings provide a reasonable proxy for learning and competency. However, as Garn (2019) asserts, "these models typically lack transparency (learning objectives or outcomes may not be clearly stated and may represent multiple competencies), validity (lack of explicit consensus on achievement criteria), and reliability (inconsistency among faculty judgments)" (p. 3). Garn's analysis focuses on the difficulty of transitioning all systems currently reliant on the credit hour to one that focuses on student learning. However, he argues that the current time-based system of assessing student progress is not equitable since "underprepared/served students need more time to learn," and time spent, rather than knowledge or skills learned, is at the center of credit-based degrees. Garn writes: "Postsecondary education needs to shift from an intellectual discussion to a moral imperative and movement. It needs to ensure equity by requiring 'standards that clearly define rigorous expectations and serve as the basis for equally demanding assessments that reveal students' actual learning' (Silva et al., 2015, p. 14)."

Another consideration is how experiential learning should be considered in light of the traditional definition of credit hours. As McMillan and Barber (2020) argue, experiential learning (in the form of internships, service learning, etc.) is a high-impact practice that promotes student learning and growth in many ways. In these experiences, faculty often interact with students in less traditional ways, perhaps "mentoring, facilitating and guiding" as opposed to lecturing. Faculty may also be spending more time preparing internship sites, community partners, and students for experiential learning, rather than preparing lectures, which makes it difficult to assess student learning or faculty effort simply using traditional definitions of credit hours. McMillan and Barber echo Garn's concerns, and urge that institutions use credit hours as a way of assigning faculty workload but move away from using them to assess student learning.

Considering Credit Hours in the Context of Curricular Revision

As Macalester seeks to develop an academic and social curriculum that inspires students to be global citizens, and the government appears to support innovation in awarding credit for learning (Laitinen, 2012), it will be important to clearly articulate how Macalester's new curriculum meets Higher Learning Consortium (HLC) accreditation standards.

Stark and Lattuca (1997) suggest that learning outcomes should have primacy in curriculum development, and that the arrangement and assessment of experiences (sequence, structure, evaluation, etc.) be considered secondarily. While necessarily an iterative process, they recommend considering resources, time and space only once these higher-level considerations are

decided. It may be that questions about how innovative Macalester would like to be in terms of credit hour structures could wait until the learning outcomes are established. This consideration is aligned with the Strategic Planning and Analysis (SPA) Committee's recommendation that: "Before we begin working on a new four-year developmental curriculum, the college revisit the foundational academic literacies that we believe every student will need if they are to flourish at and after Macalester. Specifically, we recommend that the appropriate body revisit the existing graduation requirements and curriculum in light of the college's learning outcomes, with the goal of addressing the gap between these learning outcomes and our actual graduation requirements/curriculum" (p. 10).

Time Considerations

Macalester has expressed a desire to consider different terms in which learning outcomes could be achieved. Given that desire, it may be useful to consider how/whether a typical 4-credit course could be offered during newly-developed terms. For example, using current expectations related to student work to earn a credit hour, students would need 60 hours of interaction with a faculty member, and 120 hours of work outside that interaction, for a total of 180 hours to earn four credits. In the case of a 4-credit course offered in January or May, some options exist to meet that expectation:
- If students dedicate themselves full-time (45 hours) to the course, then the course could be a four-week course and meet credit hour expectations.
- If students are in class each weekday (40 hours) engaging both with the faculty member and interactive work (studios, labs, etc.) and spend time on readings/preparation over the weekend (perhaps 15 hours), the expectations could be met in 3 ½ weeks.
- Students could be asked to prepare in advance of the class interactions, have intensive experiences with faculty and other students for 2-3 weeks and then follow up with work that was due at a later date. This last option would allow for students and faculty to do the majority of work during the J-Term or May-Term while still meeting requirements. From an accreditation standpoint, Macalester would need to verify that the amount of work outside the class time was as expected (120 hours total if class time was 60 hours).

In the case of a 16-credit semester, it would be expected that students would engage in 720 hours of work (240 interacting with faculty + 480 work outside class).

Length of Semester	Hours/Week	Total Hours
15 weeks	48	720
14 weeks	51.4	720
13 weeks	55.4	720
12 weeks	60	720

In that case that Macalester elects to have terms with different lengths, it may be that fewer credits would be earned during shorter terms. Students could use these terms to fulfill elements of the

social curriculum, participate in shorter-term experiential or high-impact experiences, or build specific competencies as identified by learning outcomes.

Questions

As Macalester revises its curriculum, questions related to the credit hour include:
● How will credit be assigned to students for experiential learning? Given the necessity of having a qualified faculty member (as defined by Macalester and approved by HLC) oversee and evaluate student learning, faculty-student contact time may not be an ideal way to mark student experience.
● How will Macalester balance the need for students to demonstrate competency and meaningful engagement in a course of study? Might a new curriculum foreground competencies expected of every Macalester graduate, or of those graduating in each major?
● If competency is to be prioritized over time, how will that be assessed? And, how will that be communicated to stakeholders and accreditors?
● How will innovative framings of educational experiences shape how Macalester is perceived nationally and globally? How will they affect future graduate schools' and employers' assessments of the quality of Macalester graduates?
● The federal government has an interest in protecting students and taxpayers from fraud (Garn, 2019) and allowing innovation in student learning. How can Macalester innovate and communicate the value of its innovative curriculum to accreditors and potential students?
● Does Macalester want to explore/expand offering credit for demonstrated competence associated with the expressed learning outcomes (as with AP/IB courses)? Why or why not? If so, what assessments will be used?
● If Macalester is to be compelling to the federal government and accreditors, it will be important to develop transparent learning outcomes and assessments, as well as externally validated learning outcomes (Laininen, 2012). What systems need to be developed in order to develop/advance those? (HLC's recent examples might be useful.)
● Might Macalester benefit from using the Degree Qualifications Profile to frame its new curriculum? Might this provide a way of explaining the curriculum, and whatever is decided about the credit hours, to accreditors?
● The Higher Learning Commission appears to allow flexibility in credit hour requirements. They may be more willing to allow flexibility if all aspects of the existing criteria are solidly in place (particularly related to program reviews and student evaluations). Additionally, HLC articulates under "Assumed Practices" that they expect to see 120 credits as the expected requirement for a Bachelor's degree, but note that "Any variation from these minima must be explained and justified."

Faculty Workload

The structuring of academic work has implications both for student performance/transcripts and faculty workload. Traditionally, faculty workloads have been structured using credit hours in at least two ways. First, faculty are assigned a certain number of credits to teach over a certain period of time. For example, a workload policy may require that a faculty member's normal teaching must include 16 credits a year. This way of using credit hours to frame faculty work is based on the

principle that faculty effort to prepare, offer, and assess students for one credit hour is equivalent regardless of other contextual factors (to include type of teaching, number of students, type of assessment, etc.). In this case, if a faculty member teaches their 16 credits satisfactorily, they would be assessed as having met the expectations of the college.

In some cases, colleges have expanded their understanding of how to consider credit hours in assessing faculty workload by noting the number of students in each course. As such, a second way that faculty workloads rely on credit hours is an assessment of faculty performance based on the number of total student credit hours "generated" or taught by a given faculty member. For example, a faculty member teaching 8 credits in a given semester with 50 students enrolled in those credits would generate 400 SCHs. Another faculty member might teach 8 credits with 20 students enrolled and would be evaluated as making less of a contribution to the college given their generation of 160 SCHs.

Recently, other models have emerged for assigning and assessing faculty workload. These models build on and move beyond a reliance on credit hours. They recognize that faculty workloads may be more equitably distributed if faculty time, effort, or outcomes are considered. Kerry Ann O'Meara is a national leader on equitable distribution of faculty labor. Key to her work is the realization that different types of faculty effort should be recognized differently and that faculty from historically marginalized groups and women faculty do work that is most often insufficiently recognized in faculty evaluation systems (O'Meara, Culpepper, Misra & Jaeger, 2022). The six conditions associated with workload equity as outlined in Equity-minded faculty workload are:
- Transparency: Departments have widely visible information about faculty work activities available for department members to see.
- Clarity: Departments have clearly identified and well-understood benchmarks for faculty work activities.
- Credit: Departments recognize and reward faculty members who are expending more effort in certain areas.
- Norms: Departments have a commitment to ensuring faculty workload is fair and have put systems in place that reinforce these norms.
- Context: Departments acknowledge that different faculty members have different strengths, interests, and demands that shape their workloads and offer workload flexibility to recognize this context.
- Accountability: Departments have mechanisms in place to ensure that faculty members fulfill their work obligations and receive credit for their labor. (p. iv)

Especially since Macalester's curricular revisioning process includes innovative elements associated with student learning that do not happen in traditional ways (engaged learning, study abroad, elements associated with the social curriculum, etc.), seeks to center equity, and seeks to integrate the academic and social curriculum, it will be important for Macalester to consider and move beyond credit hours in assigning and evaluating faculty work.

Making the Case

It appears that some institutions are being accredited with flexibility in their use of credit hours by adhering closely to the federal definition of credit hours and providing evidence of student rigor

and positive program evaluation. For example, the University of Nebraska-Lincoln includes the following in their materials:

> "Academic units must follow the federal credit hour definition (please refer to http://policy.ncahlc.org/Federal-Regulation/assignment-f-credits-program-length-and-tuition.html): A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than: 1) One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time; or 2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours."

Further examples are available on the HLC website under Assurance System Samples.

The most direct way to claim to the HLC that Macalester meets accreditation standards is likely to: 1) identify how much time (whether synchronous or asynchronous) students are spending with a qualified faculty member; 2) specify how much time the assigned work is likely to take a student outside of the faculty-student interaction; and 3) articulate rigorous evaluation processes of the work students produce that align with general and major-specific learning outcomes. However, it appears that both the federal government and HLC may be open to considering equivalencies in an effort to assess learning rather than time.

References

Berrett, Dan. (December 14, 2012). Carnegie Teaching Foundation, Inventor of the Credit Hour, Seeks to Change It. *Chronicle of Higher Education, 59* (16): A25.

Federal Register. (2010). Program Integrity Issues, Final Rule. *Rules & Regulations, 75* (209): 66832.

Garn, Myk. (2019). Three decades and still counting (the wrong things): An analysis of three reports on the possibility and practicality of shifting our academic currency from credit hours to competencies. *Journal of Competency-Based Education. https://doi.org/10.1002/cbe2.1196*

Irani, Cindy, Pheasant, Sarah, Przypyszny, John, & Tarnow, Jonathan. (2021). New U.S. Department of Education Regulations on Distance Education and Other Title IV Program Matters Effective July 1, 2021.

Laitinen, Amy. (2012). Cracking the Credit Hour. New America Foundation and Education Sector.

Lumina Foundation. *Degree Qualifications Profile.* https://www.learningoutcomesassessment.org/dqp/

McMillan, Amy, & Barber III, Dennis. (2020). Credit hour to contact hour: Using the Carnegie unit to measure student learning in the United States. *Journal of Higher Education Theory and Practice, 20* (2): 88-99.

O'Meara, Kerryann, Culpepper, Dawn, Misra, Joya & Jaeger, Audrey. (2022). Equity-minded faculty workloads: What we can and should do now. American Council on Education.

Schneider, Carol Geary. (October 1, 2012). Is it finally time to kill the credit hour? *Liberal Education,* Association of American Colleges & Universities.

Silva, Elena & White, Taylor. (2015) The Carnegie unit: Past, present, and future. *Change: The Magazine of Higher Learning, 47* (2): 68-72. DOI: 10.1080/00091383.2015.1019321

Silva, Elena, White, Taylor, & Toch, Thomas. (2015). The Carnegie unit: A century old standard in a changing education landscape. Carnegie Foundation for the Advancement of Teaching.

Stark, Joan & Lattuca, Lisa. (1997). *Shaping the college curriculum: Academic plans in action.* Allyn & Bacon: Needham Heights, MA.

<u>Resources</u>

Degree Qualifications Profile (DQP): This set of broad expectations/competencies was developed by the Lumina Foundation in consultation with hundreds of educational leaders. Rather than focusing on credit hours, the DQP challenges higher education to ensure that their students develop learning in five areas: broad and integrative knowledge, deep knowledge in a particular subject area, high-level intellectual skills, and demonstrated achievement in applied learning and in civic learning and engagement.

Excelsior College: To alleviate rising college costs, Excelsior developed some degree programs where students can earn a bachelor's degree by using free online courses and materials available in the public domain, and demonstrate their mastery of the subjects on exams designed by subject-matter experts from across the country.

Southern New Hampshire University: One of first institutions to be approved to use alternative system to award degrees. Appears to have re-established its use of standard credits.

SUNY Empire State: Uses a credit system, but allows students to bring in the majority of their credits based on competencies/learning from other settings.

Imagine, Macalester: Curriculum

Curriculum: Inspire Current and Future Students

Macalester is uniquely situated to offer a liberal arts curriculum that integrates our institutional values with distinctive learning opportunities. Drawing on the increasingly interdisciplinary and international experience of our world-class faculty and staff, a reimagined curriculum will inspire students to develop deep understanding in a field of study and the capacity to apply multiple methods and perspectives to address problems.

We will engage our shared governance processes to update our curriculum, providing a cohesive framework and unifying experiences that prepare our students to tackle the world's pressing challenges.

Priority Initiative	*Goals*
Create a Developmental Four-Year Experience	● Strengthen the student experience across the four years by identifying specific learning foci for each year. Connect and integrate learning experiences inside and outside the classroom, in ways that are equitable and inclusive. ● Develop a robust and student-centered first-year experience.
Update and Innovate Academic Pathways	● Create a compelling, future-focused curriculum and set of graduation requirements, framed by curiosity, innovation, problem-solving, digital literacy, justice, sustainability, and global perspectives.
Redesign the Academic Calendar to Reimagine Our Use of Time	● Establish an academic calendar and work schedules that intentionally center well-being by creating time for reflection, integration of ideas, community connection, and rest. ● Explore flexibility in time-to-degree to maximize use of the campus during summer and January term, potentially allowing for new models like a three-year B.A. or an accelerated pathway to graduate/professional school.
Amplify Opportunities for Experiential Learning	● Ensure all students have access to internships, community engagement, study away, and entrepreneurship experiences that prepare them for life after Macalester. ● Assess the feasibility of summer/January break programming to increase flexibility, grow opportunities for international experiences, and maximize use of our facilities and resources. ● Emphasize the uniqueness of our location in a capital city by strengthening partnerships with Twin Cities organizations that involve our students in mutually-beneficial learning, service, cultural engagement, and employment opportunities.