Experiential Learning in the Bachelor of Science degree in Computer Science

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This document specifies the Department of Computer Science's implementation of the Missouri S&T Undergraduate Experiential Learning Standard & Operating Procedure approved by Faculty Senate on April 17th 2014 (http://facultysenate.mst.edu/media/campussupport/facultysenate/documents/academicfreedomstandards/2013-2014/AFS_Experiential_Learning_document.pdf).

All BS in CS students must complete one of the following options to meet their experiential learning degree requirement:

- Any on campus course, not required for the BS in CS degree, listed on the CS department website as designated by the CS undergraduate committee as an experiential learning course (e.g., COMP SCI 4097, COMP SCI 5001 – Experiential Entrepreneurship for Computer Scientists, COMP SCI 6400, COMP SCI 6401, any courses approved for the minor in entrepreneurship); these courses must require that students write a reflection on the learning experience and count the grade received for it towards the course GPA.
- COMP SCI 2002 – Cooperative Work Training; must require that students write a satisfactory reflection on the learning experience.
- Undergraduate Research, including but not limited to OURE projects, NSF REU, Honors Academy Senior Research Project, CRA-W CREU/DREU, etc.; the faculty research advisor will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by said faculty advisor.
- Member of a SDLEC recognized Student Design team for at least one semester; a faculty advisor of the Student Design team will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the student's advisor.
- Member of a student team listed on the CS department website as recognized by the CS undergraduate committee (e.g., ACM Programming Competition Team, ACM Cyber Defense Team) for at least a semester; a faculty advisor of the student team will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by said faculty advisor.
- Officer in a student organization (e.g., ACM, ACM-W, IEEE-CS, TIES, or UPE) listed on the CS department website as recognized by the CS undergraduate committee, for at least an academic year; a faculty advisor of the student organization will have to complete a standardized

assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the aforementioned faculty advisor.

- Internship/co-op/externship not done in combination with COMP SCI 2002; supervisor will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the student's advisor.
- Complete an approved S&T Study Abroad program; student will need to provide a reflection on the learning experience which must be deemed acceptable by the student's academic advisor.
- Complete 100 hours as a student employee of S&T's IT Research Support Services (ITRSS); supervisor will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the student's academic advisor.
- CS Ambassador for at least an academic year, including a training session by experienced faculty, a minimum of two times shadowing campus visits handled by experienced faculty, and a minimum of forty campus visits spread over a minimum of two semesters; student will need to provide a reflection on the learning experience which must be deemed acceptable by the student's academic advisor.
- Service Learning: member of any service learning team/organization listed on the CS department website as designated by the CS undergraduate committee as meeting the criteria for experiential learning (e.g., Engineers without Borders, Habitat for Humanity) for at least a semester; the team/organization's advisor will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the student's advisor.
- Mentor/coach/tutor for at least an academic year in an S&T sponsored mentoring program (Student Success Coaches, Peer Learning Assistant, On-Track Mentor, Opening Week Mentor - which continues through the academic year with programming such as ReConnect1 and 2); the student's supervisor will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the student's advisor.
- Paraprofessional, mentoring, peer teaching positions (Resident Assistants, Programming Resident Assistants, Chancellors Leadership Academy Advisors, Peer Involvement Advisors, Miner Mentors, Joe's P.E.E.R.S., Health Related Careers Mentoring Program, Admissions Ambassadors, PRO Leaders) for at least an academic year; the student's supervisor will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as

provide a reflection on the learning experience which must be deemed acceptable by the student's advisor.

- Year-long leadership involvement experiences (Global Leaders Institute, Chancellor's Leadership Academy, Student Leadership Conference Chair, University Innovation Fellow); a faculty or staff member supervising the experience will have to complete a standardized assessment (similar to our GRA assessment) provided by the CS department and the student will need to rate at least acceptable on said assessment as well as provide a reflection on the learning experience which must be deemed acceptable by the student's advisor.
- Custom: if a student wants experiential learning credit for something not on above pre-approved list, then with the student's advisor's endorsement, they can submit via their advisor a proposal to the CS undergraduate committee describing the proposed experiential learning experience and justifying that it meets the elective experiential learning requirement.

The above referenced instructors/advisors/supervisors will submit their assessments electronically to the CS undergraduate secretary who will track them and periodically send S&T's Undergraduate Studies Office a list of BS in CS students who have met all their experiential learning requirements.

The CS undergraduate committee will once a year report to the CS faculty:

- how many students completed each of the above listed experiential learning experiences,
- their assessment of each of the individual experiential learning experiences and the department's overall implementation of the experiential learning requirement,
- and any proposals they may have for revising said implementation.