# Guidebook for Graduate Students
# Computer Engineering Program
# University of Kentucky

August 19, 2021

Welcome to Lexington and to the University of Kentucky Computer Engineering program!

The purpose of this guidebook is to present a wealth of different information under one cover. The guidebook contains the rules and regulations concerning graduate students, the director of graduate studies, and the graduate school. This guidebook is likely to be updated periodically. Please make suggestions about how it can become more useful.

The Computer Engineering Program is jointly sponsored by the Computer Science and the Electrical and Computer Engineering Departments. It offers programs of study leading to the Master of Science (MS) and Doctor of Philosophy (PhD) degrees. Admission to these programs is highly competitive and based upon academic record, GRE scores, and letters of recommendation. Applicants should present evidence of competence in computer engineering as well as mathematical maturity.

Thesis (Plan A) and non-thesis (Plan B) options are available in the MS program. A project is required of non-thesis candidates. The MS program has no language requirement (other than proficiency in English).

The PhD program is a research degree granted primarily on the presentation of a substantial research achievement. To be admitted to candidacy for this degree, candidates must satisfy the requirements of the Graduate School and pass the Qualifying Exam. This examination usually consists of written and oral sections covering breadth in computer engineering as well as depth in a specific area. Proficiency in a foreign language is not required.

Students admitted to the PhD program who hold a prior MS degree in Computer Engineering from another institution are not eligible to receive a University of Kentucky MS degree in Computer Engineering. In special circumstances and in the case of students who are eligible for the Qualifying Exam, the DGS may petition the Graduate School for a waiver of this policy.

## Guidelines for graduate students

This document uses the following abbreviations. The personnel list was last updated in January 2021.

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| ASST | Administrative Assistant | Dee Fuhs / Beth Lutin |
| CPE | Computer Engineering | |
| CPT | Curricular practical training | |
| CS | Computer Science Department | |
| CXE | Course with prefix CPE, CS, or EE (preferably CPE) | |
| EE | Electrical and Computer Engineering Department | |
| DGS | Director of Graduate Studies for CPE | Raphael Finkel |
| DUS | Director of Undergraduate Studies | Jim Lumpp (CPE), Jurek Jaromczyk (CS), Janet Lumpp (EE) |
| FOR | Faculty of Record of the CPE graduate programs | |
| GGPA | Grade-point average (cumulative over CXE grad courses) | |
| GRE | Graduate record exam | |
| GSD | GS Dean | Brian Jackson |
| GS | Graduate School | |
| USCIS | US Citizenship and Immigration Services | |
| UKIC | International Center | |
| PB | Post baccalaureate status | |
| QE | University Qualifying Exam (PhD) | |
| RA | Research assistant (from a faculty grant) | |
| SEC | Staff assistant for the DGS | Kathy Ice-Wedding |
| TA | Teaching assistant | |
| UKY | University of Kentucky | |

We believe this document to be accurate, but the official documents of CPE, GS, and UKY take precedence in all matters of disagreement. The Graduate School Bulletin `https://gradschool.uky.edu/graduate-school-bulletin` is the most comprehensive document describing graduate studies at UKY.

## I. ADMISSION

A. **Application requirements** The GS application requirements are documented at `https://gradschool.uky.edu/application-process`. The CPE graduate programs require the following.

   (a) CV (Optional)

   (b) Personal Statement

   (c) Transcript showing a Bachelor's degree with a minimum GPA of 3.0 in an accredited undergraduate program in Computer Engineering, Computer Science, or Electrical Engineering. Accreditation may be from ABET, CSAB, or an equivalent accreditation body, such as any that has joined the Washington Accord.

   (d) Background in discrete math, programming, data structures, circuits, digital logic, and computer architecture.

   (e) Assistantship Application (Optional, at `https://www.engr.uky.edu/sites/default/files/assist.pdf`)

   (f) Official GRE scores

   (g) Three letters of recommendation

B. **Application Deadlines**

   (a) Fall: July 15 (domestic applicants), February 1 (international applicants)

   (b) Spring: November 30 (domestic applicants), August 15 (international applicants)

C. **University Scholars Program.** Approval for this program is expected by Summer, 2021. Gifted and highly motivated CPE, CS and EE undergraduate students can integrate the senior year with MS study to have up to 12 graduate hours counted for both BS and MS degrees. To qualify, students must have a GPA of 3.5 in CPE, CS, or EE required courses and 3.2 overall. Details and the application form are at `https://gradschool.uky.edu/university-scholars-program`.

D. **Conditional admission.** A student may be admitted conditionally. Typical conditions are: high GGPA, number of credits to be taken, scores on GRE. The DGS polices conditions and reviews them after the end of the first semester. In addition, the GS monitors conditional admissions. Any preconditions (such as GRE) must be met prior to the date set for priority registration during the first semester of enrollment. Students will not be allowed to priority register if these requirements are not met.

E. **Admission from other UKY programs.** The student must submit a new application, with fee, through the University application portal.

F. **Admission to the CPE PhD program from the CPE MS program.** With the approval of the DGS, a student may switch to the PhD program from the MS program. Once in the PhD program, students may count all their UKY credits taken for a MS (except for CXE768 and any credits transferred from PB) towards the 36-credit requirement for PhD residency, but only if no MS degree has been awarded.

G. **Concurrent degrees**

   (a) Students may be enrolled simultaneously in multiple degree programs, subject to the written approval of the DGS of each program and the GSD.

   (b) Students who wish to obtain concurrent degrees must write to the GS requesting that their admissions materials be forwarded to the new department.

   (c) At most 9 credit hours of work may be counted jointly toward two degrees. The DGS of both programs must communicate agreement to the GS about which courses are counted jointly by signing a form available at `https://gradschool.uky.edu/sites/gradschool.uky.edu/files/Forms/StudentForms/ConcurrentMastersForm_9-18-20.pdf`

H. **Re-admission.** After any hiatus (including probationary dismissal) other than just a Summer or Winter session, a graduate student must apply to the GS for re-admission. The GGPA and course credits are carried over from the previous time the student was enrolled.

I. **Leave of absence** Instead of a hiatus, a student can instead apply for a leave of absence. The student should contact the DGS for approval for the leave before the start of the semester in question. If the DGS approves, the DGS contacts the Graduate School admissions officer. A student may request no more than two consecutive and four total semesters in leave-of-absence status. PhD students past the QE are not eligible for a leave of absence. International students considering a leave of absence should discuss their plans with the UKIC and the USCIS before making a formal request.

J. **PhD students getting MS degree (en-passant MS).** A PhD student may be awarded an MS degree after passing the QE. However, the PhD student must complete a minimum of 48 credit hours (not counting CXE767) to get both degrees. The DGS must write a letter of approval to the GSD. Also note the following rule.

K. **Students with prior CPE MS degree.** Students admitted to the PhD program in CPE who hold a prior MS degree in Computer Engineering from another institution are not eligible to receive a UKY MS in CPE. In special circumstances and in the case of students who are eligible for the QE, the DGS may petition the Graduate School to waive this policy.

## II. MS DEGREE REQUIREMENTS

A. **Core Courses.** MS candidates must pass three of the four *core courses* with a grade of B or higher:
   CS541   Compiler Construction
   CS570   Modern Operating Systems
   EE685   Digital Computer Structure
   EE580   Embedded Systems

B. **Credits.** To receive an MS, the student must finish either (**option A**) 24 credit hours and 6 credits of thesis (CXE768, graded "S"), or (**option B**) 30 credit hours and a project (the 30 hours may include CPX610 and up to 6 credits of CPX612). The 30 hours may not include more than 9 credits of "non-curricular courses", that is, independent or supervised study courses. For either option, at least half of the credit hours must be in 600-level CXE courses. Courses from other departments require prior DGS approval. All courses must have regular grades (no "P", "S", or "I" grades). Grades must be **C** or higher.

C. **Course load during the last semester.** It is not necessary to enroll full-time during the last semester of courses, even for international students and/or TAs. International students with F-1 visas need to submit a form for reduced course load, available via the iCAT website: `https://icat.uky.edu/istart/controllers/start/StartEngine.cfm`. Students who have finished all required courses and have enough credits may take CXE748 for 0 credits; this course counts as full-time by itself.

D. **Application for degree.** During the semester in which the student plans to receive the MS degree, the student must submit an application for degree via the online GPS portal at `https://myuky.uky.edu`. The purpose of this application is to verify degree requirements and prepare the registrar for including the student's name in the Commencement Bulletin. The deadline for this application is listed at `https://www.uky.edu/registrar/content/academic-calendar`.

E. **MS committee.** Each MS student should choose an advisor, preferably by the end of the first year. The advisor must be a member of the FOR and a full member of the graduate faculty. The student coordinates the project or thesis with that professor. During the semester in which the student plans to take the MS exam (typically the 4th semester), the student should consult with the advisor to choose an MS committee. The committee must have at least three members, chaired by the advisor. At least one other committee member must be a full member of the graduate faculty. All committee members must be regular faculty, not lecturers. Preferably, all three members should belong to the FOR.

F. **CXE610 and the MS Project**

   (a) CXE610 is not a required course.

   (b) The grade in this course depends on: (a) initial write-up, (b) midterm progress report, (c) final project. It does not depend on a final examination.

   (c) Each MS project (regardless of whether it is performed as CXE610) should require the amount of work that is approximately equal to taking a 600-level course. It should require a design component, testing/verification as well as a final write-up and presentation. At the beginning of the project, a student should fill out a form for the DGS that provides the techniques to be used, specific goals, and a time table.

G. **Formal MS exam.** All MS students need to take the MS exam. It is typically a defense of the project or thesis, depending on the student's option.

   (a) An MS student may only schedule the MS exam if there are no remaining incomplete grades.

   (b) A written, well-organized report document is required for completion of an MS Degree (whether thesis or project). The document must be of sufficient quality to enable committee members to

determine the general nature, scope, and quality of the project, and it must be provided (in hard copy, if requested) to each committee member at least ten (10) calendar days before the scheduled examination date. In the event that a committee member does not receive the document at least 10 calendar days before the scheduled examination or finds it insufficient, the committee member may report this fact to the DGS, who will reschedule the examination and inform the other committee members that it is being rescheduled.

(c) The student presents a clean draft of the thesis or project document to all the committee members and gets their agreement to hold the exam.

(d) The student submits a request to schedule the exam, providing a time and place, using an online form at `https://ris.uky.edu/cfdocs/gs/MastersCommittee/Student/Selection_Screen.cfm`. This request should include the title of the project or thesis in the comments section. The SEC can help schedule a time. The GS needs about 3 weeks lead time.

(e) The DGS verifies that the student has fulfilled the requirements for the degree, that all the committee members believe that the student is ready to defend, and that they are available at the given time and place. The DGS then approves the exam and publicises its date and time.

(f) The GS emails the DGS and the advisor an "exam card".

(g) The exam is held. It **must be attended by all members** of the committee. Except when the University is using teleconferencing as a standard communication method, only one member of the committee, not the student or chair, may participate via teleconference, with prior approval of the GSD. This exam is open to the whole University community. It is not a party; the student should not provide refreshments.

(h) The committee members indicate their pass/fail judgement on the exam card, which they sign. The chair of the committee gives the exam card (hard copy) to the DGS.

(i) The DGS countersigns the exam card and sends it to the GS.

(j) A student writing a thesis has 60 days following the exam to complete revisions to the thesis document. Because the DGS must sign it and the GS must approve the format, the student should be in contact with both the GS and the DGS well before the deadline to make sure the document meets their criteria. The DGS may require, for example, that the student hire a native speaker of English to fix presentation errors.

(k) The student must submit the thesis electronically. The advisor and the DGS sign the final approval form: `https://gradschool.uky.edu/sites/gradschool.uky.edu/files/Forms/StudentForms/2020-2021/ETDApprovalForm_12-13-2019.pdf`.

H. **Enrollment.** Students need not be enrolled at UKY during the semester they take the MS exam and/or receive an MS. This rule applies to Plan A students as well as Plan B students.

I. **Time limits.** International students have I-20 forms giving them 2 years to complete their studies. Extensions can be granted if there is a good reason. MS Students have 6 years to complete all requirements for the degree, but they have the opportunity to request extensions up to additional 4 years, for a total of 10 years. All such extension requests must be initiated by the DGS.

## III. PhD DEGREE REQUIREMENTS

A. **Advisor.** At first, the DGS is the student's advisor. The student should choose a research area and find a real advisor as soon as possible, preferably by the end of the first year of coursework.

B. **PhD advisory committee.** PhD students must establish an advisory committee at least one year before the QE. In consultation with the advisor, the student proposes the committee using an online form at `https://ris.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm`. The DGS verifies that the committee members are willing to participate. The committee consists of at least 4 members: the advisor serves as the chair of the committee, one person is from a department outside CS and EE, at least 3 others (including chair) must be full graduate faculty. If the actual advisor is not in FOR, a FOR member must be the chair, and the non-FOR advisor may be co-chair. The core of 4 must all be members of the graduate faculty. A new committee may be formed if a student switches advisors.

C. **Plan of study.** The advisory committee agrees on a plan of study, which suggests courses and papers that the student must take or read/produce. It also decides on any intermediate examinations before the QE.

D. **Residence credit for a PhD.** PhD students must spend two years (36 credits, including graduate school classes and classes outside CPE, but not including audits, undergraduate classes, or courses taken pass/fail) in residence before the QE. CPE MS students who transfer to the PhD program may count all their UKY credits (except for EXE768 and any credits transferred from PB) towards the first and second year of residency once they enter the PhD program only if they have not received the MS degree. The DGS may ask the GS to waive the second year of residency for exceptional students. CXE767 (2 credits) may be taken during the semester of the QE, even if the exam is on the last day of the semester, but if a student registers for one of these and does not pass the QE during that semester, the registration must be changed to something else, typically CPE611 or CS611.

   (a) **First year.** Either (a) MS at UKY, (b) 18 graduate credits at UKY, or (c) transfer of residence credits from an awarded MS degree at an accredited domestic or international school. If international, the DGS must formally recommend the transfer to the GS. The student should have successfully completed the breadth requirement within 27 credits of CPE graduate coursework before asking for such transfer.

   (b) **Second year.** 18 additional graduate credits at UKY.

E. **Breadth requirement** PhD Students fulfill the breadth requirement by taking at least three courses from the following list and receiving at least a B in all, and an A in at least two of them.
   CS541    Compiler Construction
   CS570    Modern Operating Systems
   EE685    Digital Computer Structure
   EE580    Embedded Systems
   A student who has taken equivalent courses elsewhere can ask for them to apply to the breadth requirement; each such case is evaluated by the DGS on its merits.

F. **Focus requirement.** Of the 36 course credits, at least 24 credits must be courses in CS, EE, or CPE. The remaining courses must be approved by the DGS. At least 18 credits of the total coursework, including 12 credits of the CS/EE/CPE coursework, must be taken at the 600 or 700 level. Students entering the doctoral program with an MS degree in a relevant discipline (typically CS, EE, or CPE, or other technical discipline relevant to their area of study as determined by the Director of Graduate Studies) must complete at least 18 credit hours of additional course work beyond their MS. Of these 18 course credits, at least 12 must be courses in CS, EE, or CPE. At least 9 credits of the total coursework, including 6 credits of the CS/EE/CPE course work, must be taken at the 600 or 700 level.

G. **Depth requirement.** The Depth process is individualized to the research focus of the student. The student's advisory committee decides on the appropriate form of this process. It can be a written exam, an oral exam, a literature review, a published paper, some other requirement, or a combination of these. The student's committee informs the DGS when the student has accomplished this process.

H. **No remaining incomplete grades.**

I. **Qualifying exam (QE).** After two years of residency, the completion of the requirements above, and any other requirements (such as courses and research papers) imposed by the student's advisory committee, the student becomes eligible to take the QE. The QE is typically a thesis-proposal examination, although the committee can decide otherwise. The QE should be taken within one semester of finishing the depth and breadth requirements. PhD students must pass the QE within the first five years of residency. Extensions of up to 12 months may be approved by the GSD. Requests for longer extensions (no longer than 3 years) have to be approved by the Graduate Council upon positive recommendation from DGS, the student's advisor, and the majority of the Graduate Faculty. Failure to pass the QE within 5 years or after the approved extended limit results in dismissal from the program.

    (a) The student presents all the advisory committee members with a clean draft of the QE paper and gets their agreement to hold the QE.

    (b) The student initiates the request for the QE, specifying the date, the time, and the place through an online form at `https://ris.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm`. Exams require a 3-week minimum lead time for the GS to act.

    (c) The DGS verifies (1) that the student has completed the prerequisites for the QE, and (2) that all the committee members are available at the specified time and believe that the student is ready to take the QE.

    (d) The QE **must be attended by all members** of the advisory committee. Except when the University is using teleconferencing as a standard communication method, only one member of the committee, not the student or chair, may participate via teleconference, with prior approval of the GSD.

    (e) The committee signs an "exam card" indicating pass/fail and presents it to the advisor, who forwards it to the DGS, who forwards it to the GS.

After the QE, students must enroll in CXE767 *Dissertation Residency Credit*, a 2-credit hour course, every Fall and Spring semester (at least 2) until completing the degree. In addition, students may enroll for any other course approved by their advisory committee. They will be charged at the in-state tuition rate plus mandatory fees in each term (Spring and Fall).

J. **Time limits.** All degree requirements for the doctorate must be completed within five years following the semester or summer session in which the student completes the QE, but extensions up to an additional 5 years may be requested for a total of 10 years.

K. **Assessment of progress.** The FOR reviews each PhD student's progress every year and informs each PhD student in writing the results of this review.

L. **Application for degree.** During the semester in which the student plans to receive the PhD degree, the student should submit an application for degree via the online GPS portal at `https://myuky.uky.edu`. The purpose of this application is to verify degree requirements and prepare the registrar for including the student's name in the graduation brochure. The deadline for this application is listed at `https://www.uky.edu/registrar/content/academic-calendar`.

M. **PhD Oral examination.** The final hurdle is the PhD oral exam. Several steps are involved.

    (a) The student presents all the advisory committee members with a clean draft of the thesis and gets their agreement to hold the exam.

    (b) The student submits a notice of intent to defend, providing a time window of several weeks during which the exam might take place, using an online form at `https://ris.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm`. The GS needs about 8 weeks lead time.

    (c) The DGS verifies that all the committee members believe that the student is ready to defend the thesis and that they are available during the window. The DGS then approves the notice of intent.

(d) The GS appoints an outside examiner and informs the student.

(e) The student consults the committee and the outside examiner to establish a date and time for the exam. The SEC can assist in reserving a room.

(f) The student submits a request for final exam using an online form at `https://ris.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm`. The GS needs about 3 weeks lead time.

(g) The DGS verifies that all committee members are available at that time and believe that the student is ready to defend the thesis. The DGS then approves the request for final exam and publicizes its date and time.

(h) The student must deliver to the outside examiner a complete, approved copy of the dissertation at least two weeks in advance of the examination.

(i) The exam is held. It **must be attended by all members** of the committee and the outside examiner. Except when the University is using teleconferencing as a standard communication method, only one member of the committee, not the student or chair, may participate via teleconference, with prior approval of the GSD. If not all are present, the exam card is signed by those present, scanned and sent to those absent, who sign and return that copy; the DGS sends the signed copy to the GS. This exam is open to the whole University community. It is not a party; the student should not provide refreshments.

(j) The student has 60 days following the exam to complete last revisions to the thesis document. Because the DGS must sign it and the GS must approve the format, the student should be in contact with both the GS and the DGS well before the deadline to make sure the document meets their criteria. The DGS may require, for example, that the student hire a native speaker of English to fix presentation errors.

(k) The student submits the thesis electronically. The advisor and the DGS sign the final approval form at `https://gradschool.uky.edu/sites/gradschool.uky.edu/files/Forms/StudentForms/2020-2021/ETDApprovalForm_12-13-2019.pdf`.

# IV. COURSES

A. **Advising.** Prior to registration or pre-registration, students are encouraged to discuss their schedule for next semester with the DGS or their advisor.

B. **Pass/fail.** No graduate-level course (400G or higher) may be taken Pass/Fail. All courses must be taken for grades except for 700-level courses.

C. **Repeat option.** At most once during the graduate career, a student may exercise the option to repeat a course and have only the second time count for credit and towards the GGPA. The student should fill out the form at `https://gradschool.uky.edu/sites/gradschool.uky.edu/files/Forms/StudentForms/RepeatOption_9-18-20.pdf`, preferably after the conclusion of the repeated semester, so the student knows the grade. If the student re-takes a course but does not invoke the repeat option, both grades count towards the GGPA.

If a student takes a non-repeatable course more than once and gets a passing grade each time, its credits and grade only count the first time.

Without a repeat option, if a student earns a C in one attempt and a better grade in a second attempt for a course, only the first attempt is counted in the GGPA. If one of the two grades is a failing grade, both grades are averaged for the GGPA. The student must exercise a Repeat option to exclude the first grade and include the second one.

D. **Courses outside major.** There is no set rule concerning the number of courses that can be taken outside CXE. However, all such courses should be approved in advance by the student's advisor and the DGS.

E. **CXE612: independent work.** This course may be repeated to a maximum of 9 credits. (All versions of this course count toward the maximum.) Students taking the course must enter into an agreement with the professor with whom the student is working at the beginning of the semester. This agreement, preferably in writing, stipulates what the student is expected to do and by when. If such an agreement is lacking, professors are justified in giving students an E in these courses. If no professor claims a student signed up for one of these courses, the student is given no grade at all. A missing grade prevents graduation, and the class cannot be retroactively dropped.

Students may apply at most 6 credits of CXE612 toward the required coursework for an MS degree. Exceptions require the prior approval of the DGS.

F. **Add/drop.** International students should generally not drop below 9 credits, and TAs are in danger of losing their TA position if they don't progress (based on a yearly evaluation). Students enrolled for fewer than 9 credits do not endanger their health benefits.

G. **Graduate courses in departments other than CS and EE.** CPE graduate students generally need an override from the offering department to register for graduate courses (600-level) in departments other than CS and EE.

H. **Incompletes.** A student need not be enrolled at the time the incomplete is made up.

I. **Time Limit.** Courses taken more than 6 years earlier do not count toward the requirements of an MS. The DGS may request the GSD to increase this window. The GSD needs approval from the Graduate Council to increase the window beyond 8 years. It cannot be increased beyond 10 years. Courses that fall outside the window still count in the GGPA but do not count for graduate credit and may be repeated without invoking the repeat option.

J. **Probation, low GGPA.** A GGPA of 3.0 is required for graduation. A GGPA below 3.0 puts the student on probation if the student has completed 12 or more hours of graduate course work. Students on probation may not serve as TAs or hold fellowships from the GS. After one full semester on probation (or 9-credit equivalent), the GS does not allow the student to continue unless the GGPA is at least 3.0. The DGS may ask the GS to allow a longer probation period. After dismissal for these reasons, students may apply for re-admission after two semesters (one of which may be the 8-week summer term).

K. **Curricular practical training (CPT).** International students are eligible to take CPT. The Stuckert Career Center provides EXP650 (pass/fail) and EXP651 (variable credits). These courses require an approved Learning Contract, which the student must present to the UKIC, detailing the work to be done, the form and frequency of communication between student and supervising faculty, and the grading standard. The GS allows students past the QE to take CPT if the DGS approves.

## V. FAILING OFFICIAL EXAMINATIONS

A. **Definition of terms.** "Official Examination" means an MS Final Examination, a PhD Qualifying Examination, or a PhD Final Examination. "Pass" and "fail" mean "passing or failing according to the vote of the committee." A strict majority is needed to pass an exam.

B. If a student fails an Official Examination, the student may sit exactly once for a further attempt at passing that Examination.

C. The further attempt may not take place sooner than 4 months (1 month for the MS Final Examination) nor later than 12 months from the date of the original Examination.

D. The rules pertaining to lead times for submitting requests and providing written write-ups apply equally to Official Examinations and to the further attempt.

E. The committee for the further attempt must be the same as for the original examination insofar as possible. Committee substitutions require the approval of both the DGS and the Graduate School.

## VI. PROPER BEHAVIOR

A. **Plagiarism.** All academic work, written or otherwise, that a student submits is expected to be the result of that student's own thought, research, or self-expression. It is a serious offense to allow other students to copy work or to copy the work of other students (even if it is in a public computer file) unless the instructor of the course explicitly permits such activities. A student who borrows ideas, wording, or code from other sources must acknowledge that fact or the student has committed plagiarism. These offenses are punished quite strictly.

B. **Responsible use of computers.** Students are expected to follow these rules: Respect the privacy of others. Don't try to gain access to the files of another user without clear authorization (such as public access permission). Don't try to intercept network communications (including mail). Don't build programs that secretly collect information about their users. Don't attempt to obtain unauthorized privileges. Don't try to alter the integrity of the software (by using unauthorized accounts, impersonating others, cracking passwords, modifying others' data or programs). Don't copy programs for redistribution outside the department (even if within UKY) without authorization. Don't use our computers for immediate financial gain. Inform the staff if you detect others violating these principles.

C. **Computer privacy.** The staff and faculty generally do not attempt to access read-protected or encrypted files and directories unless the owner explicitly permits it, except if they need to in order to perform their function or if there is reasonable suspicion of someone violating the plagiarism or responsible computer use guidelines. The computer facilities provided by the CS and EE departments keep archival backups on a regular basis. Mail and protected (or even encrypted) files and directories are not secure. Therefore, it is unwise to keep confidential material on the computer.

## VII. CREDITS

A. **Academic load** The normal load during any semester is 9 credit hours. The DGS might allow a student to take 12 credits if the student has a demonstrated record of very good grades at UKY. The DGS does generally not permit more than 12 credits. An approval of the GSD is needed to exceed 15 credits in a regular semester. The fact that a student has an assistantship (of any type) does not itself limit the course/credit hours the student may take. The absolute limits are 9 credits per 8-week summer session and 4 credits per 4-week summer session or winter intersession.

B. **Credit transfer**

    (a) **How many.** The maximum number of transfer credits allowed (effectively 9 hours) is the greater of 9 hours and 25% of the semester hours required for degree (not counting thesis credit). The GSD can override the 9-credit max in some cases (such as PB). A course that earned $n$ credits on a quarter scheme transfers as $2n/3$ credits in our semester scheme.

(b) **When.** The credits must not be more than 8 years old for transfer to the PhD program, 10 years for transfer to the MS program. The transfer cannot happen while the student is on academic probation at UKY.

(c) **Where.** The credits must come from an accredited American institution, not a foreign institution. They may not come from an awarded graduate degree at UKY.

(d) **Exceptions.** Older or foreign credits can be transferred based on passing a course exam, but students must pay for such credits.

(e) **What.** The DGS will not approve credits for work unrelated to CPE. Credits must not be in independent work, research, or thesis. Grades must be A or B. The course may be from another UKY program in which the student has not received a degree. It is permissible to transfer high-level (600, 700-level) credits.

(f) **Effect.** A transferred credit counts towards the degree requirements, but the grade is not transferred. Transferred courses do not affect the GGPA.

(g) **How.** The DGS requests the GSD to allow transfers. The letter from the DGS includes a) the UKY equivalent course, b) original catalog description, and c) rationale if not a direct CPE transfer (example: a course in materials science dealing with Ga and Si compounds used in chips).

(h) **Graduate students transferring into CPE from a different UKY graduate program** automatically transfer graduate-level (including 400G outside of CXE) credits. If the student will not receive a degree in the other program, there is no limit on the number of courses. The DGS may choose to disallow certain non-CPE courses from applying to the CPE degree.

(i) **PB credits.** Up to 9 graduate level (including non-CXE 400G) PB credits may be transferred. It is wise to transfer 600-level credits first.

## VIII. INTERNATIONAL STUDENTS

A. **Minimum number of credits.** The United States government requires 9 credit hours for holders of F-1 visas. These must not be audit credits. They may be undergraduate credits if required for a graduate degree. This minimum can be lowered due to language difficulties, improper placement in a course leading to the student needing to drop the course, work on thesis, preparing for the MS exam, and in last semester before graduation. In all these cases, DGS must sign a form available via the iCAT website: `https://icat.uky.edu/istart/controllers/start/StartEngine.cfm`. MS students under plan A may register in the final (4th semester) for CXE748 (zero credits) if no other courses are being taken. Students under plan B **may not** register for CXE748 and must be registered for at least three credit hours.

B. **PB status.** Only domestic students may generally be PB (the USCIS does not allow an I-20 form to be issued to a PB student and the GS does not allow an F-1 visa to be used for a PB). However, someone who already has an F-2 visa can take classes PB and part-time. Applicants for PB status must meet the GS English requirement (TOEFL 79, IELTS 6.5, or, during the Covid emergency, Duolingo English Test 115).

C. **Financial matters.** International students are not eligible for student loans. Full-time TAs may not have an additional job. Half-time TAs may work another 10 hours on campus, but international TAs need permission from USCIS to take a job off campus. Summer jobs can be full-time, and permission from USCIS is likely to be easier in the summer for off-campus jobs.

D. **Visa information.** International students generally come to the US under an F-1 student visa based on an I-20 form. Students whose course of study exceeds the limit on their initial I-20 form need to submit an extension request form, available via the iCAT website: `https://icat.uky.edu/istart/controllers/start/StartEngine.cfm`.

## IX. FINANCIAL MATTERS

A. **Travel support.** The GS does not support student travel. However, the DGS might have access to funding to support students presenting talks at conferences or incurring expenses related to thesis/dissertation research.

B. **Payroll.** The payroll for CPE TAs and RAs is handled by the ASST. The ASST has forms to let students decide in what manner they wish to be paid and how much state and federal withholding should be applied. Students may be eligible for a waiver of local taxes; see the ASST for details.

C. **Fellowships.** The DGS nominates students for fellowships, typically starting in January. These fellowships generally apply only to students (new or continuing) whose most recent degree is from an American school. They often have lower limits on GRE scores.

D. **NSF Graduate Research Fellowships.** The National Science Foundation provides three-year graduate and minority graduate fellowships. Undergraduates and first year graduate students who are US citizens are eligible. Details are at `https://www.nsfgrfp.org/`.

E. **TA positions** are generally allocated by the DGS in consultation with the Department Chairs of CS and EE. Summer TAs are allocated by the DUS. The amount of stipend is calculated once a year at the start of the Fall semester based on budget and level of experience of the student. We do not raise the stipend during the year. The GS officially requires registration of full load for TAs, but it waives this requirement if the department is satisfied with the student's progress.

F. **RA positions** are offered by faculty members, both in CS, EE, and other departments, who have funding from external sources. The amount of stipend is calculated once a year at the start of the Fall semester based on budget and level of experience of the student. A student can be a part-time student and an RA, but the student must be enrolled.

G. **Limits.** The policy of both EE and CS is to give preference for TA positions to PhD students. TA support for an MS student is limited to only for two years. PhD students with fewer than 8 semesters as a TA get priority for reappointment over students with 8 or more semesters. PhD students with 8 or more semesters as a TA who have not passed the QE have the lowest priority. MS students may receive no more than 3 years of assistantship support; PhD students may receive no more than 5 years of assistantship support before passing the Qualifying Exam. TAs and RAs must maintain satisfactory academic progress. TAs and RAs are notified by March 1 whether their appointment will be renewed during the coming academic year.

H. **Requirements.** UKY that all graduate students complete the CITI on-line Responsible Conduct of Research (RCR) program within one month of enrollment and complete a refresher course every year until graduation. Details are at `www.research.uky.edu/responsible-conduct-research`.

I. **Tuition scholarship.** Full-time TAs and RAs get a full tuition scholarship; Half-time TAs and half-RAs get a half tuition scholarship.