



## Master of Engineering Partnership

*Three Universities. One Flexible Degree.*

# Graduate Handbook

*August 2004*

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## I. General Information

The three universities in Arizona, the University of Arizona (UA), Northern Arizona University (NAU), and Arizona State University (ASU), cooperatively offer courses leading to a Master of Engineering (MEng) degree. Students in this program enjoy an opportunity to select from a broad spectrum of courses and an exposure to a variety of faculty perspectives and research interests. Because this program is intended to meet the advanced technical educational needs of practicing engineers, courses are available through a wide variety of distance delivery formats – including web, web-streamed, video, and CD-rom. Of course, students with access to our campuses are welcome to take on-campus (“face-to-face”) courses as well!

In a nutshell, here’s how it works. A student in the program is admitted to one of the three universities, which becomes their “home institution.” Working with an academic advisor from the home institution, the student develops a program of study that satisfies the Master of Engineering degree requirements. This program can include courses from any of the three universities – it might include transfer credits from other universities as well.

More detailed information can be found in the following pages. The Master of Engineering degree program involves three separate universities, each with their own set of policies and guidelines. Because of that, some elements of the program details will vary from one home institution to another. This handbook begins with information that applies regardless of your home institution, and ends with information that is specific to each individual institution.

## II. Admissions

Admission to the program begins with the selection of your home institution. Upon admission to the program, the university that is designated as your home institution will be your source for academic advising, record-keeping and other student services, and ultimately confers your degree (in collaboration with the other universities). In addition, you will be expected to complete at least 10 units of coursework at your home institution<sup>1</sup>. Some admissions and degree requirements depend on policies that are under the jurisdiction of the Graduate College of your home institution, as discussed in Section VI of this handbook.

### Admissions Requirements

Students admitted to the Master of Engineering program are expected to have an appropriate academic background for their intended area of study. In general, this means a Bachelor of Science degree from an accredited institution, with sufficient engineering and related coursework to begin taking graduate level engineering courses upon admission to the program. In addition, a minimum GPA (Grade Point Average) of 3.0 on a 4-point scale is required for admission to the program. This minimum GPA requirement can be based on the last 60 units of coursework leading to the bachelor’s degree. International students must submit TOEFL scores (unless they hold a degree from a university in which English is the primary language of instruction).

Students meeting these minimum admissions requirements may be considered for admission to the program. Depending on the student’s intended area of study and home institution, additional admission requirements (such as a higher GPA or a minimum GRE score) may be required. Students are encouraged to contact representatives of their anticipated home institution to determine if any of these additional admission requirements apply.

<sup>1</sup>This 10 unit requirement can be waived when a student’s academic advisor verifies that the student’s academic interests are best served via a waiver.

## Applications for Admission

Applications for admission to the Master of Engineering program can be obtained via the program web site: [www.oneflexibledegree.com](http://www.oneflexibledegree.com). The required documents include:

- *A Personal Information Form*
- *A Statement of Career Objectives*
- *3 Letters of recommendation (these can be professional or academic recommendations)*
- *The Graduate College Admission Application for the preferred home institution. On this form you should identify “Master of Engineering” as your program of choice – specific instructions for each of the three institutions can be found in section VI.*

Links to graduate college applications and individual university instructions regarding submission of the application fee, official transcripts and other requested documents, can be found under section VI. University Specific Information.

Deadlines for admissions applications are:

- *Fall Admissions*  
*Applications are due March 15; Decisions are expected by May 1.*
- *Spring Admissions*  
*Applications are due September 15; Decisions are expected by November 1.*

Applications will be accepted after the indicated due dates, but decisions are likely to be delayed beyond the indicated date.

## Admission Status

Students who meet all admissions requirements may be granted admission to the program to undertake work leading to the Master of Engineering Degree. This admission status is known as a “regular” admission status. In some cases, students who do not meet all admissions requirements might be granted “provisional” admission status, or a decision regarding their admission may be “deferred.” The conditions under which these alternate admission statuses might be invoked, and the manner in which a student may upgrade such statuses to “regular” vary by institution, and are described in section VI of this handbook. In any event, only students who achieve “regular” status can be awarded a degree.

## III. Transfers into the Master of Engineering Program

Transfer requests are submitted to the Master of Engineering Campus Coordinator at the student’s current institution. The campus coordinator will forward the request, with supporting documentation, to the campus director at the student’s intended home institution for review. The campus director’s approval of a transfer request will depend in part on the number of units of graduate coursework appropriate for a Master of Engineering degree program that have been completed. If a student has completed 10 or more units, an approved plan of study must be submitted to the campus coordinator prior to final approval of the transfer request.

## IV. Academic Advising

Academic advising and oversight is provided by the home institution. After a student has been admitted, the department affiliated with the student's proposed area of study will assign an initial academic advisor<sup>2</sup>. Students are free to switch to an alternate advisor in their area of study. A Program of Study must be completed and filed with the campus coordinator by the time the student has completed 10 units of graduate coursework. The Program of Study is developed with the academic advisor, and is subject to the approval of the campus director.

Students should be mindful of the following guidelines when preparing their Program of Study:

1. *Students should prepare their Program of Study no later than the first month of the semester in which the tenth unit to be applied toward the degree is taken.*
2. *Once the academic advisor has approved the program of study, it should be forwarded to the Campus Director of the Home Institution for approval.*
3. *Coursework taken prior to admission in the MEng program may be included on the Program of Study, subject to the limits on transfer units and units completed while on Non-Degree-Seeking status as outlined in Section VI (and subject to the policies of the Graduate College of the Home Institution).*
4. *Students are expected to complete 10 units of study at the Home Institution, although an exemption to this expectation can be obtained with supporting documentation from the academic advisor.*
5. *The Program of Study must identify a "Capstone Event," to be completed in the final semester of the program.*

Students are encouraged to obtain advice before enrolling in courses. An approved program of study, developed in conjunction with an academic advisor, is required before the degree can be awarded.

### Program of Study

The Program of Study documents all coursework that will be used to satisfy the degree requirements. A student who completes coursework in accordance with an approved plan of study and maintains a GPA of at least 3.0 will be awarded the Master of Engineering degree. Programs of study are subject to the approval of the academic advisor and the Master of Engineering campus director of the home institution.

Students may petition to deviate from an approved plan of study. In this case, courses to be deleted and courses to be added to the program must be identified. Acceptance of these changes is subject to the approval of the campus director.

### Degree Requirements

The Master of Engineering program is an exceptionally flexible degree program. Formally, the only requirements are:

- 30 units of graduate coursework, which includes:
  - 3 units of coursework with an applied/engineering math focus
  - 3 units of coursework with a business/management focus

Subject to the approval of the academic advisor, the 30 units of coursework may include up to six units of practice-oriented project.

The Master of Engineering web site: [www.oneflexibledegree.com](http://www.oneflexibledegree.com) includes several illustrative programs of study (see "Areas of Study" on the web site). These programs have been pre-approved – students who wish to study in these areas need only select from the posted alternatives, and their programs will be approved. In many cases, students begin with these pre-approved programs and substitute courses that more closely match their interests and goals. Students who want to pursue this option are encouraged to consult with their academic advisor as they develop their own program of study.

<sup>2</sup> The advisor may be one faculty member within the intended area of study at the home institution, or it may be a group of faculty within that area.

Occasionally, students have a clear vision of what they would like to study and find that it does not lie within the boundaries of traditional engineering disciplines or the programs that we have developed and posted on our web site. Master of Engineering students have the opportunity to develop their own program tailored to their specific educational needs and goals. A student who plans to exercise this option should begin developing their program with an academic advisor as soon as possible.

## Practice-Oriented Project

The practice-oriented project is to help Master of Engineering students apply their new academic knowledge to engineering projects.

- *What types of projects are possible?*

A broad array of projects is possible. It should not be just routine work, but should represent research or engineering work done by the student, including both a practical and an academic component. For students working in industry, the projects should be distinct from the student's regular job duties, but need not be closely related to them. Project credit cannot be given for work done in the past – it must be based on work that the student performs as he/she is enrolled for credit in the master's project course.

- *What should the student do?*

First, the student should find a faculty member willing to act as an advisor for their project, and plan out the details with him/her<sup>3</sup>. When the project is related to the student's regular job duties, a fourth (non-voting) member of their advisory committee could be a senior engineer or manager, who may aid the faculty advisor with the supervision of the project. When the work is complete, the student should provide written and oral documentation of the project's completion.

- *How many credit hours?*

Students may work on a practice-oriented project for 1-6 units of academic credit, depending on how substantial the project is. As a general rule, each unit of credit corresponds to 3-4 hours of work each week for 15.

## Capstone Event

The Capstone Event is the final step in the degree program, and is intended to provide an opportunity to “bring it all together.” If the student's program includes a practice-oriented project, the capstone event may be a written and/or oral defense of the project. If the program does not include a project, the capstone event may be a written and/or oral presentation that incorporates material from the student's academic program demonstrating its integration within the workplace. In some cases, the capstone event might be an examination that captures the essence of the program's focus and represents a majority of the student's coursework. In any case, the capstone event is overseen by a faculty committee who has the authority to record the event as a “Pass” or a “Fail.” If it is a Fail, the student can petition for a second chance to Pass the requirement.

The Master of Engineering program does not specify the exact nature of the Capstone Event. Students are encouraged to explore options with their academic advisor and select an option that is consistent with their program of study.

<sup>3</sup>The project advisor is typically an academic advisor.

## ***V. Course Registration***

Students are encouraged to consult with their academic advisor before enrolling in courses.

### **Registration for Courses**

Master of Engineering students have the option of taking courses that are offered at all three universities – not just their home institution! If you have been admitted to the Master of Engineering program you can register online through the program web site: [www.oneflexibledegree.com](http://www.oneflexibledegree.com). Through this web site, you will be able to register for courses offered at your home institution – as well as those offered by one of the other two institutions.

### **Registration for Non-Degree-Seeking Graduate Student**

If you have not yet been admitted by your home institution, you can still register for classes as a non-degree-seeking student. To do this, you must first apply for non-degree-seeking status at the university offering the course. Please contact the campus coordinator at your home institution for assistance with this application and the course registration process.

### **Continuous Enrollment Requirements**

After being admitted to a degree program, students are expected to register for at least three units of coursework each fall and spring semester until all degree requirements have been met. Students who do not meet this continuous enrollment requirement will be required to re-apply for admission to the program.

It is not unusual for students to take some time away from their studies for either personal or work-related reasons. Each home institution has developed provisions for accommodating these circumstances. Contact the Campus Coordinator at your Home Institution for assistance if you find yourself in this situation, and see Section VI of this handbook for specific details for each home institution.

## ***VI. University Specific Information***

The following pages provide information that varies from one home institution to another.

### **University of Arizona**

#### **Applications for Admission**

When applying for admission to the UA Graduate College, you will need to specify “Master of Engineering” as your degree program, and check “Engineering” as your major. All applications must be submitted to the UA Campus Coordinator, along with the requested application fee, letters of recommendation and official transcripts.

#### **Admission Status**

When previous academic work does not completely meet the entrance requirements or the minimum GPA requirement has not been met, a student may be granted “provisional admission” to the program. In this case, the student will be advised of specific requirements (typically in the form of courses and minimum GPA) that must be met in order to be upgraded to regular status. Provisional status is typically reserved for students whose application package provides compelling evidence that they are likely to be able to successfully complete the degree requirements despite not meeting the minimum entrance requirements. When such compelling evidence is not available, the student may request that a decision be deferred until such evidence can be compiled. In this case, the student will typically be asked to earn a given GPA in a specific set of courses, within a specified time period. Note that provisional and deferred admissions are not the norm, and require supporting documentation from the faculty responsible for admission recommendations.

Domestic students who believe that they may not yet meet the minimum entrance requirements may strengthen their case via coursework taken in non-degree-seeking status. In this case, it is appropriate to confer with a faculty member at the intended home institution regarding course selection.

## Program of Study

At most 20% of the program of study may be “transfer credit” – coursework completed at an institution other than UA/NAU/ASU may be included on the program of study. At most 12 units of coursework completed while on non-degree-seeking status and/or transferred from an institution other than NAU or ASU may be included in the student’s program of study. Some additional graduate credits earned in graduate non-degree status may be applied for credit toward a master’s degree if they were taken at the University of Arizona as part of a post-baccalaureate graduate certificate program that is on file with the Curriculum Office and approved for application toward the master’s degree by the department offering the master’s degree. Students may request approval to apply such coursework to their degree after they obtain “regular” admission status.

## Continuous Enrollment

A student admitted to a master’s degree program must register for a minimum of three graduate units each fall and spring from original matriculation until all degree requirements are met. Master’s candidates do not have to register for graduate units during summer sessions unless they plan to make use of university facilities or faculty time, in which case they must enroll for at least one unit of graduate credit. Graduate students are subject to the continuous enrollment policy and must pay tuition and fees in order to remain in the program.

Students who are not able to meet the continuous enrollment requirement may apply for an official leave of absence, which may not exceed one year throughout the student’s degree program. The UA Campus Coordinator can provide assistance with the application for a leave of absence. Students who fail to obtain a leave of absence or maintain continuous enrollment will be required to apply for re-admission to the program. They will be required to pay the Graduate College application fee and all overdue tuition and fees, including cumulative late penalties.

## Campus Director

Dr. Julie Higle, [julie@sie.arizona.edu](mailto:julie@sie.arizona.edu); 520-621-2525

## Campus Coordinator

Celia Stenzel, [m.eng@arizona.edu](mailto:m.eng@arizona.edu) ; 520-626-8181

## Important Links

**Main Web Site:** <http://www.arizona.edu/>

**Student Link:** [http://www.arizona.edu/student\\_link/](http://www.arizona.edu/student_link/)

**Course Descriptions:** <http://catalog.arizona.edu/2003-04/courses/aaindex.html>

**International Student Center:** <http://internationalstudents.arizona.edu>

**Graduate College:** <http://grad.admin.arizona.edu/>

**Graduate College Application:** <http://grad.admin.arizona.edu/gradadm/gradadm.htm>

**Graduate Catalog:** <http://grad.arizona.edu/catalog/>

**Graduate Degree Certification:** <http://grad.admin.arizona.edu/degrecert/degcert.html>

**Degree Certification Forms:** <http://grad.admin.arizona.edu/degrecert/forms.html>

## Northern Arizona University

### Applications for Admission

NAU Graduate College applications may be submitted online. You will need to select “Engineering, Master of Engineering” as your major in the drop down box. Program specific materials (Personal Information Form, Statement of Career Objectives, and 3 Recommendation Letters) must be submitted to the NAU Campus Coordinator.

### Admission Status

When previous academic work does not completely meet the entrance requirements or the minimum GPA requirement has not been met, a student may be granted “provisional admission” to the program. In this case, the student will be advised of specific requirements (typically in the form of courses and minimum GPA) that must be met in order to be upgraded to regular status. Provisional status is typically reserved for students whose application package provides compelling evidence that they are likely to be able to successfully complete the degree requirements despite not meeting the minimum entrance requirements. When such compelling evidence is not available, a student may request that a decision be deferred until such evidence can be compiled. In this case, the student will typically be asked to earn a given GPA in a specific set of courses, within a specified time period. Note that provisional and deferred admissions are not the norm, and require supporting documentation from the faculty responsible for admission recommendations.

Domestic students who believe that they may not yet meet the minimum entrance requirements may strengthen their case via coursework taken in non-degree-seeking status. In this case, it is appropriate to confer with a faculty member at the intended home institution regarding course selection.

### Program of Study

At most 25% of the program of study may be “transfer credit” – coursework completed at an institution other than UA/NAU/ASU may be included on the program of study. Up to 12 units of coursework, completed while on non-degree-seeking status, may be included in the student’s program of study. Students may petition to apply such coursework to their degree after they obtain “regular” admission status.

### Continuous Enrollment

A student admitted to NAU is a continuing student if they are currently enrolled and have not been absent for more than three consecutive semesters (excluding summer session). This means that the student need not apply for re-admission to the university. A student admitted to NAU as a graduate student, who has not been enrolled for three or more of the previous semesters, must apply for re-admission through the NAU Graduate College.

**Home Institution Course Registration URL:** <http://www.registrar.arizona.edu/schedules/general.htm>

### Campus Director

Dr. Ernesto Penado, [ernesto.penado@nau.edu](mailto:ernesto.penado@nau.edu)

### Campus Coordinator

Mary Blackett, [m.eng@nau.edu](mailto:m.eng@nau.edu); 928-523-5263

## Important Links

**Main Web Site:** <http://www.nau.edu/web/index.shtml>

**LOUIE/Student Link:** <http://www.nau.edu/~regis/news/whatsnew.htm>

**Registrar's Forms Center:** <http://www.nau.edu/~regis/regdocs/vforms.html>

**International Office:** <http://www.nau.edu/instu/index.html>

**Graduate College:** <http://www.nau.edu/gradcol/>

**Graduate College Application:** <http://www.nau.edu/gradcol/appoptions.htm>

**Graduate Catalog:** <http://www3.nau.edu/catalogs/gradoo/>

**Publications and Forms:** <http://www.nau.edu/gradcol/publications.htm>

## Arizona State University

### Applications for Admission

ASU Graduate College applications must be submitted online. In Section B – “Complete if Applying for Admission to a Degree Program” – click on “Click Here to Select a Program Area.” In the dialog box that appears, click on “Engineering and Related Technologies.” Scroll down to “Engineering – Tri-University” and select “Master of Engineering (ASU/NAU/UofA) (ME).”

### Admission Status

In general, ASU does not offer an opportunity for provisional or deferred admission.

### Program of Study

At most 20% of the program of study may be “transfer credit” – coursework completed at an institution other than UA/NAU/ASU may be included on the program of study. Up to 9 units of coursework completed while on non-degree-seeking status may be included in the student’s program of study. Students may petition to apply such coursework to their degree after they obtain “regular” admission status.

### Continuous Enrollment

Any student who has not been in attendance at the university for one semester, and has not registered for a 595, 695, or 795 omnibus course, must submit an application for re-admission to the Graduate College. The application should be submitted at least one month before the beginning of the semester in which the student plans to re-enter. For details on re-admission and other matters relating to the application fee, please visit [www.asu.edu/graduate/admission](http://www.asu.edu/graduate/admission). Any student who has not been in attendance at the university for two or more semesters, and has not registered for a 595, 695, or 795 omnibus course, must submit a new application for admission to the Graduate College.

The following omnibus course numbers are used to ensure continuous enrollment for students: 595, 695, 795. These course numbers are used in situations where registration is necessary, but where credit is not needed. Credit is not awarded, and no grade is assigned. Students must, however, pay the one credit fee for the omnibus course listing in order to maintain continuous enrollment at ASU.

**Home Institution Course Registration URL:** <http://asuengineeringonline.com>

## Campus Director

Dr. Joseph Palais, joseph.palais@asu.edu

## Campus Coordinator

Rachel Joles, m.eng@asu.edu; 480-965-1740

## Important Links

**Main Web Site:** <http://www.asu.edu/>

**International Student Office:** <http://www.asu.edu/studentlife/iso/>

**Graduate College:** <http://www.asu.edu/graduate/>

**Graduate College Application:** <http://www.asu.edu/graduate/admissions/apply.html>

**Graduate Catalog:** <http://www.asu.edu/aad/catalogs/>

**Preparing for Graduation:** <http://www.asu.edu/registrar/graduation/index.html>

**Program of Study/Declaration of Graduation Forms:** <http://www.asu.edu/registrar/forms/pos.html>