ogy education (industrial arts), industrial technology, or a related field. Students who have not completed a degree in technology education or industrial technology are expected to have completed the following courses or their equivalents prior to enrollment in courses to be applied toward the master's program: IT 41, 52, 74, 102, 114, 115; MATH 11 or DS 71.

Applicants whose preparatory education was principally in a language other than English must earn a minimum TOEFL score of 550.

Classified Standing. A baccalaureate degree is required and an undergraduate major in technology education, industrial technology, or a related field; a 3.0 GPA (last 60 semester units); a 450V/430Q GRE score; three letters of reference from employers or faculty at the university attended most recently; a personal statement of 500 words or less indicating reasons for pursuing a master's degree; a preadmission consultation session with the department graduate program coordinator. Students lacking in any area with compensating strengths in other areas are encouraged to apply.

Conditional classified standing may be granted to petitioning applicants with a 2.5 to 2.99 GPA (last 60 semester units); GRE scores on file with the university; three letters of reference; and a personal statement of 500 words or less. Students must request classified standing in the program by the semester in which a maximum of 10 units to be used toward the degree are completed.

Program Requirements. Under the direction of a graduate adviser, each student prepares and submits a coherent program individually designed within the following framework:

Specific Requirements	Units
Required courses	**15**
IT 223, 280, 282, 283, 285	
Electives in industrial technology or related field	**12**
(approved electives appropriate to individually designed program; a maximum of 9 units may be 100-level courses)	
Culminating Experience	**3**
IT 298 or 299	
Total minimum requirements	**30**

Graduate Advising Notes
1. Upon admission, students should see the department graduate program coordinator for aid in program planning.
2. To progress through the graduate program, students must:
   a. Maintain a minimum 3.0 GPA
   b. Complete all prerequisite coursework
   c. Attain classified standing
   d. Meet the graduate writing skills requirement
   e. File for advancement to candidacy
   f. Complete the program requirements
   g. File a master's thesis or project committee assignment form
   h. Formally present and defend the thesis or project results
3. Classified standing must be achieved by the semester in which students take the 10th program unit. All admission requirements must be met. Students must maintain a 3.0 GPA.
4. Students must meet the university graduate writing competency requirement by passing the writing component of IT 280 or AGRI 220. Students should complete the writing requirement prior to advancement to candidacy.
5. Advancement to candidacy requires the completion of 9 program units at California State University, Fresno, a minimum GPA of 3.0, meeting the graduate writing skills requirement, and filing a Petition for Advancement to Candidacy a minimum of one semester prior to enrollment in thesis or project and by established deadline.

COURSES
Industrial Technology (IT)

IT 12. Basic Vehicle Systems (3)
Design, construction, and mechanical functions of vehicle engines, fuel systems, electrical systems, power transmission, brakes, and wheel suspension; proper use and safety of tools and equipment. (2 lecture, 2 lab hours)

IT 20. Technology and Society (3)
Prerequisite: G.E. Foundation A2. Critical relationship between society and technology. Technology, as it applies to contemporary issues such as technology and gender, the fate of skill and labor's power under changing conditions, technology and war, the problem of technocracy, technology and consumer culture, and technological relations to the natural environment. G.E. Breadth D3.

IT 30. Exploring Technology Systems (3)
Survey of the technology systems discipline including history (medieval apprenticeship to present), technology subsystems (information and communications, transportation, manufacturing, construction), and relationships to other disciplines, including business, industry, and education. (2 lecture, 2 lab hours; field trips)

IT 41. Industrial Design Graphics (3)
Application of the fundamentals of industrial design graphics. Sketching, lettering, orthographic projection, working drawings, auxiliary views, dimensioning, developments, pictorial drawings, duplication; interrelationship to the design process. Introduction to CAD. (6 lab hours)

IT 45. Industrial Technology Exhibits and Competitions (3)
Provides a structure for students to be involved in various industrial technology exhibits and competitions, industrial technology research and development, project management, and team work. *CR/NC* grading only. (6 lab hours)

IT 52. Electricity and Electronics (3)
(Same as MEAG 53.) Introduction to electricity including fundamentals of electrostatics, alternating and direct current electrical circuits, electrical calculations, magnetics, circuit applications, electrical measuring, and test equipment. Schematics and wiring diagrams, standards, and codes. (2 lecture, 2 lab hours) (Course fee, $5)

IT 58. Applied Computer Networking I (4)
Internet, intranet, local area network concepts, protocols, architectures, and implementation issues. Data communication in office technology and manufacturing automation. (2 lecture, 4 lab hours; field trips) (Formerly IT 158)

IT 60. Basic Graphic Arts (3)
Introduction to the graphic arts; letterpress, photo offset lithography, screen printing; layout, composition, imposition, presswork, bindery. (6 lab hours; field trips) (Course fee, $6)

IT 63. Applied Computer Networking II (4)
Prerequisite: IT 58. Understanding complex networks, such as IP, IPX, Frame Relay and ISDN. An analysis of the technology used to increase bandwidth and quicken network