U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institute for Occupational Safety and Health
Office of Extramural Programs

SUPPLEMENTAL INSTRUCTIONS FOR PREPARING AN EDUCATION AND RESEARCH CENTER (ERC) TRAINING GRANT APPLICATION

I.   Introduction
This document provides instructions to be used when applying for a competing (new, competing continuation, and supplemental) NIOSH Education and Research Center Grant. Begin by reading the General Instructions in Section I-B of the PHS 398, and then follow both sets of instructions using these special instructions for preparing an Education and Research Center (ERC) application.

Note especially the eligibility requirements, submission dates, award provisions, and review criteria in the current Program Announcement.

II.   Specific Instructions
1. FACE PAGE
Item 2. Response to Specific Request for Applications (RFA) or Program Announcement (PA)
Indicate "NIOSH Education and Research Center"
Item 4. Human Subjects Research
Check "Yes" if training plans include projects that include human subjects. If the applicant organization has an approved Federal Wide Assurance (FWA) or other Assurance on file with the Office for Human Research Protections (OHRP), insert the FWA or other number in Item 4b. If an award is made, human subjects may not be involved and trainees may not participate in human subjects related research until a certification of the date of IRB approval or a designation of exemption has been submitted to and accepted by the PHS agency, and NIOSH requirements for human subjects research have been addressed (see instructions in Section I, Human Subjects Research, and the NIH Grants Policy Statement (GPS)).

In many instances, trainees supported by institutional training grants will be participating in research supported by research project grants for which the IRB review of human subjects is already complete or an exemption is already designated. This review or exemption designation is sufficient, provided the IRB determines that the research would not be substantially modified by the participation of a trainee. The appropriate grants must be identified along with their IRB approval dates or exemption designation in a table (see II.13. List of Tables, sample Table 14) that is included in Section G of the Training Plan, "Human Subjects".

These policies apply to all Performance Sites.

Item 5. Vertebrate Animals
Check "Yes" if training plans include trainee participation in projects involving vertebrate animals. If the applicant organization has an approved Animal Welfare Assurance on file with the Office of Laboratory Animal Welfare (OLAW), insert the assurance number in Item 5b. If at the time of application, plans for the involvement of vertebrate animals are so indefinite that Institutional Animal Care and Use Committee (IACUC) review and approval are not feasible, insert "Indefinite" at Item 5a.
In many instances, trainees supported by institutional training grants will be participating in research supported by research project grants for which the IACUC review is already complete. This review is sufficient, provided that the research would not be substantially modified by the participation of a trainee. The appropriate grants must be identified (see sample Table 15) along with their IACUC approval dates in Section H of the Training Plan.

The institution must ensure that trainees are enrolled in the institution's animal welfare training and occupational health and safety programs for personnel who have contact with animals, as appropriate. It is also the institution's responsibility to ensure that trainees are properly supervised when working with live vertebrate animals.
If an award is made, vertebrate animals may not be used and trainees may not participate in vertebrate animal related research until a verification of the date of IACUC approval has been submitted to the PHS awarding component.

These policies apply to all Performance Sites.

Item 6. Dates of Entire Proposed Period of Support
The usual starting date for an ERC is July 1. The NIOSH restricts submission and review dates to once a year. Applicants are strongly encouraged to contact the NIOSH staff identified in the PA before submitting an application.

2. DESCRIPTION, PERFORMANCE SITES, KEY PERSONNEL, OTHER SIGNIFICANT CONTRIBUTORS, AND HUMAN EMBRYONIC STEM CELLS
(PHS 398 FORM PAGE 2)
Description: Project Summary and Relevance
The first and major component of the Description is a Project Summary. Summarize the objectives, rationale and design of the ERC program. Since ERCs are multi-component, interdisciplinary projects, it is important that the applicant succinctly describe the entire ERC in the Description. Provide information regarding the program areas and scientific disciplines encompassed by the program. Include a brief description of the level(s) and duration of the proposed training, and the projected number of participating trainees in each proposed training area including continuing education.

The second component of the Description is Relevance. Using no more than three or four sentences, describe the relevance of this training to occupational safety and health. In this section, be succinct and use plain language that can be understood by a general, lay audience.

Performance Sites. List all of the locations where training, program management, and the research experiences described in the Program Plan will be performed. If a performance site is participating in research using human subjects, it is the responsibility of the applicant organization to assure that the performance site complies with the human subject protection regulations in 45 CFR Part 46 and other NIOSH human subject related policies described in the PHS 398 and GPS. For research involving vertebrate animals, the applicant organization must ensure that all performance sites hold OLAW-approved assurances.

Key Personnel and Other Significant Contributors. The ERC Director (Principal Investigator), Deputy Director, Program Directors, and other key training faculty whose contributions are critical to the development, management and execution of the ERC Program in a substantive, measurable way (whether or not salaries are reimbursed) should be identified as Key Personnel. Organize this section in the same manner as the rest of the application. That is, for each ERC program area, identify the program director (if appropriate), the key faculty etc.

Human Embryonic Stem Cells. For each trainee utilizing human embryonic stem cells in a research project, list project title, mentor, and specific cell line(s) from the registry.

3. TABLE OF CONTENTS FOR AN EDUCATION AND RESEARCH CENTER APPLICATION

In order to facilitate the preparation and review of the ERC application, the following SUBSTITUE Table of Contents should be used. It is a minor modification of the PHS 398 Table of Contents.

o PHS 398 Face Page
o PHS 398 Form Page 2: ERC Description, Performance Sites, and Key Personnel (use additional continuation pages as needed for the key personnel)
o Table of Contents
o Detailed Budget for the Initial Budget Period Direct Costs for the entire ERC (Form page 4)
o Detailed Budget for each ERC Area for the Initial Budget Period organized by program area (center wide activities, postdoctoral training (if independent from one of the training areas), IH, OMR, OHN, OS, allied OSH, continuing education (CE and HST), NORA project(s)). Use those that apply, and label each budget page in top left margin with the name of the program area. An applicant must use budget form page 4 for each program area. The academic training programs also use substitute budget form page 4 (Substitute Detailed Budget for Initial Budget Period Direct Costs) in order to display and justify trainee expenses. Budget form page 4 and substitute budget form page 4 for each academic program should be cross-referenced and have the same total direct costs. Label each form page 4 using the top left margin with the name of the program area.
o Budget for the Entire Proposed Period of Support for the entire ERC (Form page 5)
o Budget for the Entire Proposed Period for each ERC area (Form page 5). Form page 5 is completed for each program area proposed. For the academic training programs also

use the substitute budget form page 5 (Substitute Budget for Entire Proposed Period of Support Direct Costs).

Label each form page 5 using the top left margin with the name of the program area.

o Biographical Sketch-Principal Investigator/Program Director

o Other Biographical Sketches

o Other Support

o Overall Description of the ERC (2 page maximum)

o Past Performance/Accomplishments in Last Project Period (existing, competing continuation) ERCs (5 page maximum excluding tables on graduates)

o Past Performance/Accomplishments Relevant to ERC goals (new applicants only - 5 page maximum excluding tables on graduates)

o Resources Statement on the Institutional/Other Commitments to the ERC (1 page maximum, see page 59 of 398 instructions)

o Human Subjects summary table that lists all the projects and human subjects information (title, performance sites, FWAs, IRB approval date/status, if applicable)

o Cover Sheet: labeled Center Wide Activities Section (covers sheets are on plain white paper). The Center Wide Activities Section includes all items up to the training plans section.

o Cover Sheet labeled Administrative Core; include name of individual responsible for Admin Core (usually the Center Director)

o Administrative and Planning Core Plan (should not exceed three pages)

o Cover Sheet: labeled Outreach Plan; include name of responsible individual

o Outreach plan (should not exceed five (5) pages)

o Cover Sheet: labeled Diversity Recruitment Plan; include name of responsible individual

o Diversity Recruitment Plan (should not exceed two (2) pages)

o Cover Sheet: labeled Interdisciplinary Coordination Plan; include name of responsible individual

o Interdisciplinary Coordination Plan. This plan should not exceed two (2) pages.

o Cover Sheet: labeled Pilot/Small Projects Program; include name of responsible individual

o Pilot/Small Projects Program Plan (should not exceed ten pages)

o Cover Sheet: NORA Research

o PHS 398 Form Page 2: NORA Research Plan(s) Description(s), Performance Sites, and Personnel. This Form should be provided for each NORA Project.

o NORA Research Project Plan(s) (follow the research Program Plan outline in 398 instructions). It should not exceed 15 pages.

o NORA Research Training and Research to Practice Project Plan(s) should not exceed 15 pages.

o Cover Sheet labeled Training Programs Section
o Cover Sheet: Academic Training Area A (replace A with name of academic training area such as IH, OHN, OMR, etc); include name of program director responsible for this area.
o PHS 398 form page 2 for Training Area A . Follow guidance provided above for the overall ERC description except it should focus on the academic training area.
o Program Plan: Training Area A (follow Program Plan outline in this document).It should not exceed 15 pages excluding tables. OS&H course content outlines must be included with an appendix.
o Cover Sheet: Academic Training Area B (replace B with the name of the academic training area such as IH, OHN, OS, etc); include name of program director responsible for this area.
o PHS for 398 page 2: Follow guidance for the overall ERC description except it should focus on the academic training area.
o Program Plan: Academic Training Area B (follow Program Plan outline in this document). It should not exceed 15 pages excluding tables.
o Continue with as many sections as there are academic training areas.
o Cover Sheet: Post Doctoral Training; include name of project investigator responsible for this component.
o PHS for 398 page 2: Post Doctoral Training Component. Follow guidance for the overall ERC description except it should focus on the post doctoral training area. Do not copy the ERC description for this section. Use this section only if the postdoctoral training is independent of the other training areas.
o Post Doctoral Training Plan (follow Program Plan outline in the 398 instructions). It should not exceed 15 pages excluding tables.
o Cover Sheet: Continuing Education in Occupational Safety and Health
o PHS for 398 page 2: Continuing Education Component. Follow guidance provided above for the overall ERC description except it should focus on continuing education.
o Program Plan: Continuing Education for Occupational Safety and Health (follow Program Plan outline in this document). It should not exceed 15 pages excluding tables.
o Cover Sheet: Continuing Education for Hazardous Substance Training (if applicable)
o PHS for 398 page 2: Continuing Education for Hazardous Substance. Follow guidance for the overall ERC description except it should focus on hazardous substance training.
o Program Plan: Continuing Education for Hazardous Substance Training (follow Program Plan outline in this document). It should not exceed 15 pages excluding tables.
o Human Subjects
o Vertebrate Animals
o Literature Cited
o Consortium/Contractual Arrangements
o Consultants and Collaborators, including NIOSH/CDC

Note: In the top left margin of the detailed (form page 4) and summary (form page 5) budget pages, the program director should identify the project title. For example, Academic program: Industrial Hygiene. Type density and size throughout the entire application must conform to the limits provided on page 14 in the PHS 398 instructions.

4. DETAILED BUDGET FOR INITIAL BUDGET PERIOD

If an ERC applicant is requesting a budget of $500,000 directs costs or more for any year, you do not need to obtain prior approval before submitting the application.

An ERC is a multi-component project and several detailed budget pages are needed to describe the first year budget. The first detailed budget page labeled "overall ERC budget" in the top left margin summarizes the first year budget for the entire ERC. This budget page is followed by detailed budget pages for each program area. For all program areas, use Form page 4 of the PHS 398. For academic training program areas (IH, OMR, OHN, etc.) also use the institutional Kirschstein-NRSA substitute Form Page 4. Budget form page 4 and substitute budget form page 4 for each academic program should be cross-referenced and have the same total direct costs. Each detailed budget page is labeled in the top left margin with the name of the program area (center wide activities, IH training program, Continuing Education etc.) It is important that the budget pages are ordered in the same manner as the projects, and are clearly labeled in the top left margin with the name of the program area. For each academic training program, on budget form page 4 enter trainee expenses in the "Other" block.

The following guidance is provided for completing substitute form page 4.
Stipends
Enter the number of trainees and total stipend amount for each trainee category as appropriate. Use the current Institutional Kirschstein-NRSA stipend schedule, (http://grants.nih.gov/training/nrsa.htm). If a category contains different stipend levels, e.g., for varying levels of postdoctoral experience itemize. Enter the total stipends for all categories.

Tuition, Fees, and Health Insurance
Explain in detail the composition of this item. Itemize tuition, individual fees, and health insurance. If tuition varies, (e.g., in-state, out-of-state, student status) identify these separately. Tuition at the postdoctoral level is limited to that required for specified courses. Tuition and fees (including self-only or family health insurance) may be requested only to the extent that the same resident or nonresident tuition and health insurance fees are charged to regular non-Federally supported students and post-doctorate fellows. Grantees should request full needs.

Trainee Travel
State the purpose of any travel, type of meeting (such as sponsoring organization), the number of trips involved, and the number of individuals for whom funds are requested, bearing in mind that PHS policy requires coach class air travel be used. Justify foreign travel in detail, describing its importance to the training experience.

Trainee Related Expenses
Funds to defray other costs of training, such as faculty and staff salaries, consultant costs, equipment, research supplies, staff travel, etc., are requested as a lump sum based on the amounts specified in the Program Announcement for each trainee in the program. Give

the number of trainees at the predetermined rate and enter the total dollar figure. Trainee related expenses should be entered in the appropriate budget category block on form page 5. As previously noted, for each academic program both budget form page 4 and substitute budget form page 4 are used and should have the same total direct costs.

5. BUDGET FOR ENTIRE PROPOSED PERIOD OF SUPPORT
INSTITUTIONAL KIRSCHSTEIN-NRSA FORM PAGE 5
Use the Form Page 5 and Institutional Kirschstein-NRSA Substitute Form Page 5. Follow the guidance provided for item 4 above.

6. BIOGRAPHICAL SKETCH
BIOGRAPHICAL SKETCH FORMAT PAGE
There is no Form Page for biographical sketches. Follow the format on the Biographical Sketch Format Page. Include biographical sketches, not to exceed four pages each, for all key professional personnel and other significant contributors to the training program. Assemble sketches with the program director first and others following in alphabetical order.

7. RESOURCES
RESOURCES FORMAT PAGE
Follow the format and instructions on the Resources Format Page. Describe the facilities and resources that will be used in the proposed training program. Indicate in what ways the applicant organization will support the program (e.g., supplementation of stipends).

8. CENTER WIDE ACTIVITIES
Plans are required for the Administrative Core, Outreach, Diversity Recruitment, and Interdisciplinary Coordination program areas. Plans for the Pilot/Small Projects and NORA Research program areas are optional.

A. Administrative Core
Describe the administrative structure and management plan for the ERC. This plan should include the following activities:

1. Coordination and integration of ERC programs.
2. Assessment of the overall productivity, effectiveness, and need for ERC programs.
3. Overall organization of Center Wide activities such as strategic planning, conferences, focus groups, and retreats.
4. Organization and management of internal and external advisory committees.
5. Records of ERC activities such as formal meetings, measures of effectiveness, and training program outcomes.
6. Interaction with stakeholders, other ERCs, NIOSH, and other groups and organizations relevant to the mission of the ERC.

B. Outreach Program
Describe the focus of the outreach activities planned. The plan should address the following recommended activities:

1. The program should focus on impacting the OS&H practitioner.
2. Partnerships with NIOSH-funded Training Project Grants.
3. Interaction with other academic institutions to integrate OS&H within curricula.
4. Providing curriculum materials and consultation to other institutions.
5. Conducting visiting scholars/faculty activities including participation of labor and management leaders.
6. Cooperation and collaboration with professional and scientific societies and associations and delivery of OS&H awareness seminars to undergraduate programs, secondary education, labor and business groups, and community organizations.
7. Activities that facilitate the translation of research findings to practice.

C. Diversity Recruitment Program
Describe the focus of the diversity recruitment activities planned. The plan should address the following recommended activities:

1. The program should stimulate the recruitment and subsequent training of minority students in the OS&H field.
2. Efforts tailored to each training program should be identified.
3. Develop collaborative training programs focused on academic institutions serving minority and other priority populations.

D. Interdisciplinary Coordination Program
Describe the basic strategy of the interdisciplinary coordination program for trainees. The plan should consider the following activities:

1. Coursework – common courses for all students including OS&H and Public Health courses; specialty courses involving interactions with other departments/schools; field experience courses.
2. Clinical activities – participation in occupational medicine clinic including work-site investigations; participation at employee health clinics; practicum rotations and experiences involving collaboration at work sites.
3. Seminars/rounds – interdisciplinary seminars with presentations by students and guest lecturers; journal club participation in review and critique of journal literature; medical grand rounds generally involving OM residents and OHN students; OS&H case conferences usually organized by the OM program.
4. Other activities - such as interdisciplinary comprehensive examinations where students function as a team presenting specific OS&H problems and solutions to a faculty panel.

E. Pilot/Small Projects Program
The scope and specific requirements of the program are presented in detail in the ERC Program Announcement.

F. NORA Research Program
The scope and specific requirements of the program are presented in detail in the ERC Program Announcement.

9. TRAINING PROGRAM PLANS

Since ERCs must propose training in more than one discipline, this outline should be followed for each training area that is proposed.

Introduction (Revised/Supplemental Applications Only)
If you are preparing a revised or supplemental application, complete the Introduction section first (see instructions provided earlier in Section I of the 398 instructions, Revised Applications or Competing Supplements).

Follow the outline below for all applications to describe the Training Area Plan. Do not exceed 15 pages of narrative for sections A-B. The information provided in tables (see sample List of Tables in Section II.13) will not be counted toward the page limitation; however, these tables should be numbered consecutively and each given a title. Number the table pages at the bottom of the page according to their placement within the narrative or contiguously at the end of the narrative to maintain the continuity of the application.

Before completing the training plan, applicants (Center Director) may wish to contact the appropriate NIOSH staff, who may have further advice or suggestions for organizing the relevant data into particular formats.

A. Background
Give the rationale for the proposed training program, relevant background history, and the need for the training proposed. Indicate how the proposed program relates to current training activities at the applicant institution.

Describe the purpose and objectives of the training program and summarize the training activities in the proposed program. Describe how the program will benefit from the training support available to the ERC.

B. Program Plan: Academic Training Areas such as IH, OS, OHN, OMR, or Allied OSH
1.   Program Administration. Describe the program director's qualifications for providing leadership of the program, including relevant scientific background, current research areas, and experience in training programs. Indicate the program director's percent effort in the proposed program.

        Describe the administrative structure of the program and the distribution of responsibilities within it, including the means by which the program director will obtain continuing advice with respect to the operation of the program. See sample Table 1 for a summary of academic programs.

2.   Program Faculty. For each faculty member, list his/her primary departmental affiliation, and role in the proposed program. Describe each faculty member's expertise that is relevant to this program and indicate how trainees will be mentored by faculty, for example, participation in research, practicum, etc. Describe the extent to which

participating faculty members cooperated, interacted, and collaborated in the past, including joint publications, joint sponsorship of student research, or collaborative projects.

In a table (see sample Table 2), for each participating faculty member, list active and pending research and training grant and contract support from all sources (including Federal, non-Federal, and institutional research grant and contract support) that will provide the context for research training experiences. If none, state "None." Include the source of support, grant number (or contract or other identifying number) and title, dates of the entire project period, and annual direct costs. If part of a larger project, identify the principal investigator.

In a table (see sample Table 3), for each participating faculty member, list all past and current trainees for whom the faculty member was/is the thesis advisor or sponsor (current project period only). For each student indicate: 1) whether predoctoral or postdoctoral; 2) the training period; 3) title of the research project; and 4) for past students, their current positions, and for current students, their source of support.

In a table (see sample Table 4a) provide statistical data for the previous budget period (past training year) on all trainees (including type of degree and trainee number by academic status) and another table (see sample Table 4b) with aggregate data for the current project period.

In a table (see sample Table 5) provide a listing of all program graduates for the current project period (name, degree date, degree awarded, and current employment). **Please be sure to indicate whether or not the graduate was employed in the Occupational Safety and Health field or enrolled in advanced OS&H academic training upon completion of the training program.**

For new applications, list representative recent publications of some of the above students or post-doctorates.

In competing continuation applications, denote trainees who were or are supported by this training grant with an asterisk. Individuals who were trained at sites other than the applicant organization may be included but should be specifically identified. Publications of trainees should be listed in the Progress Report of this application (see instructions for Progress Report below).

3.   Proposed Training. Describe the proposed training program. State the training level and number of proposed trainees. For postdoctoral trainees, indicate the proposed distribution by degree (e.g., M.D., Ph.D.). Describe course work/curriculum of study and project opportunities, the duration of training, i.e., usual period of time required to complete the training offered, and if applicable, the extent to which trainees will participate directly in research.

Indicate how the individual disciplinary and/or departmental components of the program are integrated and coordinated and how they will relate to an individual trainee's experience. Describe interdisciplinary experience between students in core and allied program areas including course work, field projects, seminars and other activities.

Provide representative examples of programs for individual trainees. Include curricula, degree requirements, didactic courses, laboratory/internship/practicum experiences, qualifying/comprehensive examinations, and other training activities, such as seminars, journal clubs, etc. For doctoral training, describe how the preceptor and research problems are chosen, how each trainee's program will be guided, and how the trainee's performance will be monitored and evaluated. It is not necessary to provide syllabi for all the courses in the appendix. Include only the relevant core disciplinary courses.

4.   Training Program Evaluation. Program directors are encouraged to develop methods for ongoing evaluation of the effectiveness and quality of the training program. Describe any plans for such an evaluation, e.g., plans to obtain feedback from the advisory committee as well as current and former trainees to help identify weaknesses in the training program and to provide suggestions for program improvements.

5.   Trainee Candidates. Describe recruitment plans, including the sources and availability of trainees; the qualifications of prospective trainees; and the criteria and procedures by which trainees will be selected.

In a table (see sample Table 6) display the following information for the current project period: 1) number of individuals who have formally applied for training; 2) number offered admission; 3) number who entered training; 4) number who completed or are currently in training; and 5) number who left the program.

Indicate whether these individuals were applying for graduate level or postdoctoral training; for postdoctoral fellows, identify their degrees (e.g., M.D., Ph.D.).

Prospective trainees. In a table (see sample Table 7), indicate the credentials and application outcomes of the applicant pool for the previous budget period for the program. For each applicant (identified with a number in sequence, rather than by name, to safeguard privacy) indicate the Graduate Record Examination scores (if applicable) . Indicate whether applicants were or were not offered admission, which applicants matriculated, and whether applicants were U.S. citizens or had permanent resident status.

Prospective postdoctoral trainees. In a table (see sample Table 8), present the qualifications of prospective postdoctoral trainees in the most recent applicant pool. Provide the degree(s) and year awarded, thesis research topic, preceptor, citizenship or permanent resident status, and residency training (when appropriate) for each prospective applicant to the program. Indicate whether applicants were or were not offered admission and which applicants entered the program.

C. Program Plan: Continuing Education
Note: The OSH/CE program is required and the HST/CE program is optional. A complete program plan is needed for each program.

1.   Program Administration. Describe the program director's qualifications for providing leadership of the program, including relevant scientific background and expertise, and experience in training or continuing education programs. Indicate the program director's percent effort in the proposed program.

Describe the administrative structure of the program and the distribution of responsibilities within it, including the means by which the program director will obtain continuing advice with respect to the operation of the program.

2.   Program Faculty. In a table (see sample Table 11), for each academic faculty member, list his/her primary affiliation, and role in the proposed program.

In a table (see sample Table 12a), provide a display of the continuing education courses for the previous budget period by program area and a summary (see sample Table 12b). In Table 12c provide a display of the composite by program for the current project period.

3.   Proposed Training. Describe the need for and goals and objective of OSH/HST Continuing Education (CE) training. Describe the proposed continuing education training program. State the categories of participants and expected number for the CE program. Describe relationships with or influences of competing groups offering similar/complimentary continuing education course. Discuss usefulness of courses in meeting participant's needs.   Information on course design and how it addresses contemporary needs/issues should be included.   Information about the training approach and why it was chosen should be provided.

Indicate how the individual disciplinary and/or departmental components of the program are integrated and coordinated and how they will relate to the CE training program. Describe interdisciplinary experiences offered participants. Describe how the CE program assists in preparing practitioners for professional certifications.

Provide representative examples of CE programs (no more than 2 from each area).

4.   Training Program Evaluation. Program directors are encouraged to provide for ongoing evaluation of the effectiveness and quality of the CE program. Describe any plans for such an evaluation, e.g., plans to obtain feedback from current and former participants to help identify weaknesses in the training program and to provide suggestions for program improvements.   Provide information on the success of the marketing and recruitment plans.

5.   Recruitment Plans. Describe recruitment plans, including advertising, outreach activities and other means of informing the public about your program.

NOTE: ERCs are multi-component interdisciplinary programs. Therefore, Tables 4-10, and 13 may be repeated throughout the application for each academic training area, as appropriate. For each Table number add the name of the program. For example, Table 4a-Industrial Hygiene, Table 12a-CE/OSH.

D. Minority Recruitment and Retention Plan
The NIOSH promotes broad and systematic efforts to recruit individuals from groups currently underrepresented in occupational safety and health professional practice and research.

Applications without a description of diversity recruitment efforts will be considered incomplete and will be returned to the applicant without peer review.

Describe the program's previous efforts and plans to recruit and train graduate students and/or postdoctoral trainees from groups underrepresented in occupational safety and health. Organize the information as follows:

History. Describe efforts to recruit minority students into the existing training program. In competing continuation applications, also describe past efforts to recruit and retain underrepresented students.

Achievements. In a table (see example Table 13), summarize recruitment data for the ERC by training area in each year of the current project period. Provide the number of minority individuals who applied; number offered admission; and number who entered the program. For those who entered the program, indicate current status (i.e., in training, graduated or completed training) and all sources of support. For those who have left the program or completed training, include information about their subsequent career development or employment.

Proposed plans. Describe steps to be taken during the proposed award period regarding the identification, recruitment, and retention of graduate students and postdoctorates from underrepresented groups.

E. Plan for Instruction in the Responsible Conduct of Research

Applications lacking a plan for instruction in the responsible conduct of research will be considered incomplete and will be returned to the applicant without review.

Every masters (research), doctoral and postdoctoral trainee must receive instruction in the responsible conduct of research. Describe a plan to provide trainees with formal and informal instruction on scientific integrity and ethical principles in research. The plan must address the rationale for the instruction, the format and subject matter, the degree of faculty participation, trainee attendance, plans to assess the quality and the frequency of

instruction. For competing continuation applications, describe the type of instruction provided in the current project period, the degree of student participation, the results of any assessments and other relevant information.

There are no specific curriculum or format requirements for this instruction; however, conflict of interest, responsible authorship, policies for handling misconduct, policies regarding the use of human and animal subjects, data management, and data-sharing are areas that are strongly suggested for consideration. Applicants may wish to consult the NIH web site (http://www.nih.gov/sigs/ bioethics/researchethics.html) for additional guidance.

F. Progress Report (Competing Continuation Applications Only). This section does not count towards the page limitations specified in other sections.

State the period covered. Briefly describe the accomplishments of the training program. This will be done for each academic training, continuing education, and Center Wide program separately. Do not exceed 5 pages of narrative for each program.

In a table (see example Table 9), for each year of the grant since the last competing application, provide the following: 1) total number of positions awarded in each training category; 2) number of predoctoral trainees appointed and months of support committed; and 3) number of postdoctoral trainees appointed, with what degrees, at what levels, and for how many months. If any trainee positions were not filled, explain the reason.
In a table (see example Table 10), list all trainees who were, or are, supported by this training grant (current project period only, if applicable). For each student provide: 1) name; 2) year of entry into the training program; 3) prior institution and degree at entry; 4) source of support during each year of training, e.g., this training grant, another training grant (specify), research grant, university fellowship, individual fellowship (specify), etc.; 5) name of research mentor, if applicable; and 6) research topic, if applicable.

In the narrative section of the Progress Report, list each trainee supported during the period covered and indicate in parentheses the preceptor/mentor. Briefly summarize the research conducted by each trainee and list all publications (full citation) that resulted from the work done during training. If any postdoctoral trainee with a health professional degree who was appointed to the grant during the most recent award period received less than 2 years of research training, explain why. Where possible for past trainees, describe the extent of their current involvement in research, including research grant support and representative recent publications. This information will be used to track the pattern of support of trainees and the subsequent career development of former trainees.
Describe any specific effects of this training program on curriculum and/or research directions. Describe how the funds provided under Training Related Expenses were used to benefit the program.

G. Human Subjects
As indicated earlier in these instructions (Item 4 on the Face Page), where appropriate, include a list of already reviewed research project grants (grant number, principal

investigator, project title) and their IRB approval dates or exemption designations. (See sample Table 14).

H. Vertebrate Animals
As indicated earlier in these instructions (Item 5 on the Face Page), where appropriate, include a list of already reviewed research project grants (grant number, principal investigator, project title) and their IACUC approval dates. (See sample Table 14).

I. Consortium/Contractual Arrangements
Describe any programmatic, fiscal, or administrative arrangements between the applicant organization and other participating organizations.

J. Resource Sharing
Not applicable to Institutional Training Grants. Omit this section.

10. APPENDIX

An appendix is permitted but should include only those materials appropriate for the proposed program. Appendices are commonly provided with ERC applications and are encouraged, especially course descriptions, sample curricula, and course brochures. Syllabi for academic disciplinary areas and publications and manuscripts that are related to research projects may also be included. Appendix materials must be supplied in the form of a PDF file contained on a CD ROM disk. Please follow the guidelines for creating PDF files provided by the eRA Commons (see http://era.nih.gov/ElectronicReceipt/pdf_guidelines.htm). Paper copies of appendix materials will not be accepted. Otherwise, the preparation of appendices should conform to the guidelines described by the PHS 398 Instructions (see http://grants.nih.gov/grants/funding/phs398/phs398.html).

11. CHECKLIST
CHECKLIST PHS 398 FORM PAGE (MS WORD OR PDF)
Inventions and Patents
Not applicable.
Facilities and Administrative Costs
Facilities and Administrative (F&A) costs, other than those issued to state or local government agencies, will be awarded at 8 percent of total allowable direct costs (exclusive of equipment, tuition and related fees).

12. KEY PERSONNEL REPORT
Not applicable.

13. LIST OF TABLES
Table 1: ERC Academic Training Programs.
Table 2: ERC Faculty Members' Research and Training Grant and Contract Support
Table 3: Current and Past Trainees – Since Beginning of Current Project Period

Table 4a: Academic Training Report – Previous Budget Period
Table 4b: Academic Training Report – Since Beginning of Current Project Period
Table 5: Tracking Graduates - Academic Training Report – Since Beginning of Current Project Period
Table 6: Trainee Summary Data – Since Beginning of Current Project Period
Table 7: Trainee Qualifications – Prospective Pre-Doc – Previous Budget Period
Table 8: Trainee Qualifications – Prospective Post-Doc – Previous Budget Period
Table 9: NIOSH Positions Awarded Since Beginning of Current Project Period– Progress Report for Competing Applications
Table 10: Trainees Supported Since Beginning of Current Project Period – Progress Report for Competing Applications
Table 11: Continuing Education Faculty
Table 12a: CE Course Offerings by Program Area – Previous Budget Period
Table 12b: Summary of CE Course Offerings by Program Area – Previous Budget Period
Table 12c: CE Course Offerings – Summary by Program Area – Since Beginning of Current Project Period
Table 13: Minority Recruitment Data – Since Beginning of Current Project Period
Table 14: Human Subjects Grants
Table 15: Animal Subjects Grants
Table 16: ERC Training Grant Key Personnel and Other Significant Contributors – FTE Spreadsheet for Next Proposed Budget Period: July 1, 200x to June 30, 200x

Do **not** place all tables together at the end of the application. Tables should be inserted into the application in the appropriate sections.

14. SUGGESTED FORMAT FOR TABLES
A suggested format for these tables is provided on the NIOSH web site under "Suggested formats for Training Tables".