

CENTER FOR COGNITIVE SCIENCES
MEMBERSHIP HANDBOOK

Updated October 18, 2005

SECTION I
CENTER ACTIVITIES

The Center for Cognitive Sciences (CCS) is an interdisciplinary, interdepartmental research center established to promote and support scholarship, research, and training in learning, perception, cognition, and other related areas. Affiliate with the Center is based on demonstrated research interests, activity and expertise. Faculty and student members come from various colleges and schools within the University; their specialty fields include: child development, cognitive science, computer science, electrical and mechanical engineering, communication disorders, instructional design, kinesiology, linguistics, management and decision sciences, neuroscience, physical education, psychological foundations of education, psychology, physiology, and radiology.

The close intellectual contact with other scholars who share an interest in learning, perception, and cognition influences and stimulates each participant in the Center in significant and productive ways. The encouragement of research, especially through the exchange of ideas and paradigms, is the essence of the Center's program. A vital program can only be maintained when all members actively participate.

Almost from its inception, the Center for Cognitive Sciences has provided a formal training component for predoctoral students, and many of its other academic activities also focus on students. Center graduate students belong to several research groups that frequently connect the perspectives of one investigator with those of another. Debates are sharpened and new issues emerge with experimental questions.

Public Participation

Many of the Center's colloquium speakers are from local universities and corporations. The Center organizes other special outreach programs such as the 25th Anniversary Celebration and an Affiliated Scientists Reception where industry professionals were specifically honored and invited to meet with students. The Center organized the 1997 Minnesota Conference on Vision for Reach and Grasp where 26 speakers from 8 countries presented their research. A sesquicentennial conference, Mind and Emotion: From the Molecular to the Cultural was held in the spring of 2001. This conference featured 21 speakers from around the nation as well as professors from the University of Minnesota.

Attendance at the Center's public functions, such as the colloquium series during the academic year, is open to all with an interest in learning, perception, and cognition. The Center is happy to circulate its electronic calendar to all interested persons.

Research Orientation and Training Retreats

Every fall semester new and returning students and faculty participate in a Research Orientation and Training Retreat, an intensive instructional gathering where faculty members present and discuss current research in its full diversity.

A similar retreat occurs each spring in which all trainees present papers or posters based on their significant research activities. The spring retreat is the student counterpart of the fall Research Orientation and Training Retreat. At this retreat, students are the program presenters. The occasion allows the students to make a formal presentation of their research in a situation similar to what they will experience when presenting at a convention or other scientific meetings.

Training Committee

A Training Committee composed of faculty, students, and staff designs a set of training sessions during the academic year. The Training Committee also helps to establish a procedure for evaluating student progress at the end of the year. The training meeting topics usually focus on professional activities and ethics of research. These have included sessions on: grant writing, manuscript preparation, design of introductory and advanced courses, styles of teaching, effective oral presentations, job opportunities in applied settings, use of computers in research designs, rights of students, preparing a vita, postdoctoral fellowship opportunities, establishing a lab, and other topics of professional concern.

Cognitive Science Minor Program

The University of Minnesota has an excellent environment for research in Cognitive Science. We have unusual strength in vision research (including perception, neuroscience, computational modeling and applications) and there is a strong auditory group as well. The University has a flourishing Neuroscience Graduate Program that has been successful in recruiting top graduate students nationally, with more than seventy participating faculty. New strengths in clinical departments, including Neurology, Neurosurgery, and Psychiatry have brought a strong basic science emphasis to these areas and to related clinical programs.

An interdisciplinary minor in Cognitive Science was established by the Graduate School in 1989. The impetus for this minor program was recognition of the need for a formal organizational structure to facilitate graduate academic activities in this rapidly advancing domain of inquiry. The minor is available to both the Masters and Doctoral levels of graduate work. It provides a set of integrated courses that emphasize theory and methods in Cognitive Science. A major goal of the program is to increase and enhance the interactions among graduate students and faculty involved in Cognitive Sciences.

The Center is a major supporting unit for the Cognitive Science Program. The Director of Graduate Studies for Cognitive Science is Charles R. Fletcher. A bi-weekly proseminar in Cognitive Science is required of students in the minor program and open to the University community. It consists of a series of lectures, lab tours, and interactive demonstrations by Cognitive Science Faculty and occasional visiting professors.

Weekly Colloquium Series

In the Center, Trainees and Associates from various backgrounds plan for and participate in the Cognitive Science Colloquium Series, selecting speakers and hosting outside visitors for presentations.

Selected students become steeped in outside visitors' areas of specialization and, during special training meetings, help orient other students and faculty concerning the upcoming research presentation. In addition, regularly scheduled research groups involve faculty and students in informal exchange, discussion, and argumentation on topics that are often related to the colloquium presentations.

A colloquium is presented each week by a Center postdoctoral student, visiting faculty of another institution, faculty member of the University, or by an expert whose work is of special interest to the Center. These presentations may include the beginnings of a research program, data from a specific project, or the report of a student's doctoral research. The occasion is also used to allow advanced students to present their research in a situation similar to what they may experience when interviewing for a faculty position.

The 'internal colloquium' committee is run by students with faculty guidance. The committee solicits speakers and arranges the schedule. The composition of the committee assures an interdisciplinary sampling of speakers. This series also expands the boundaries of the Center, because speakers are selected from any corner of the campus or from neighboring campuses. It is not unusual to have a behavioral scientist from another department request the opportunity to present data at one of these weekly colloquia. It is an excellent opportunity to share ideas with a friendly but critical audience.

Approximately thrice each semester, a distinguished cognitive scientist is invited to campus for two days of intensive interaction with faculty and students. The 'external committee' obtains recommendations from the various research groups within the Center for 'external' speakers who would be especially valuable in guiding their research, and who will also appeal to the Center as a whole. Before the visitor arrives on campus, a set of representative reprints will have been made available in the Center and one of the students will have summarized the visitor's research and experimental approach during a training meeting.

The visitor will usually appear at an informal discussion hour before giving a formal presentation. The formal presentation is open to the entire community. Students escort and have lunch or dinner with the visitor. The visitor also tours relevant laboratories and is asked to consult with the special research groups working in related areas. These visitors present their own research, comment on research being done in the Center, and provide guidance concerning the students' ongoing research programs. Students and faculty also have the opportunity to meet individually with visitors. The 'external'

colloquia offer the occasions for intense and concentrated intellectual activity, both in anticipation of the visit and while the consultant is on campus. It is a time of heightened interdisciplinary exchange and preparation, and an excellent example of a way to motivate scholarly activity without inducements of courses or examinations. The presentations and informal activities provide an important aspect for faculty and students to coalesce and to be stimulated in areas that may be outside of their ordinary sphere of research.

Since 1998, in addition to the regular Cognitive Science Colloquium Series once a month the Cognitive Neuroscience Colloquium Series has brought in internationally known speakers in cognitive science and brain imaging whose work is relevant to human learning and its practical applications. As an example, David Heeger of Stanford described recent work on brain imaging and dyslexia, and Paula Tallal of Rutgers provided an example of bridging research and remediation for language learning impairments (<http://vision.psych.umn.edu/www/cogneurosci/>).

Student Research Support

There are many other activities sponsored by the Center that promote the development of skills in research and theory. Student associates and trainees receive an **annual allotment** that can be used to fund studies for subject payments, purchase lab stimulus/supplies, or travel to present their research at national professional meetings. This opportunity is a significant incentive for our students and insures that they develop professionally as well as scientifically. The students also have access to the Center's shops and other facilities where they can learn about design of equipment and ways of representing data. They serve on committees and learn about the sources of funding for the Center and the mechanisms of governance that support a major collaborative research enterprise. These are not formal academic experiences per se, but they are valuable in preparing students for research careers.

Academic Evaluations

Student progress is monitored both by their home department and the Center. The structure of the Center encourages many faculty members to interact with individual students and to note their growth in understanding research, as well as acquiring the skills for conducting research. Students have numerous opportunities to present their work through the research groups, spring retreat and internal colloquia, all of which are attended by Center faculty. In addition, the training committee sets up a formal evaluation procedure for all Center students each year. The evaluation includes a report by the students of research presentations, completed and published papers, laboratory experiences, current research activity, and complete course work. IN addition, each student is typically interviewed by a faculty member of the Training Committee. These evaluation procedures provide the faculty with detailed information concerning the student's activities and progress. The Training Committee reports to the Governing

Council the information obtained for each student and uses this to make suggestions to the student and advisor concerning the student's progress and activities. On occasion, the evaluations have made clear that a student's interests or level of performance were not consistent with those of the Center and the student's traineeship has been withdrawn. The evaluation also gives students an opportunity to express their views of their experiences in the Center, leading to new programs and other improvements in the administration of the Center.

Summer Research Activities

The Center also administers the Research Experience for Undergraduates, a 10-week intensive summer program that emphasizes student participation in research activities of faculty affiliated with the Center and working in the disciplines of behavioral sciences. Students attend weekly research and lab meetings, develop a project with the assistance of their mentor, present their papers and publish the proceedings at the end of the program. This program is funded by the National Science Foundation, the National Institute of Mental Health, several University collegiate/departmental units, and also includes funding to recruit students of under-represented groups.

SECTION II
CENTER MEMBERSHIP AND ADMINISTRATION
(Revised 2008)

This section presents information on the membership nomination process and on membership levels, responsibilities, and privileges for undergraduate students, pre-doctoral students, post-doctoral fellows, faculty, and affiliated individuals. It also describes the governance and committee structure of the Center for Cognitive Sciences (CCS).

General Membership Information

All members of CCS at any level are enrolled in the CCS listserv, which distributes weekly calendar and announcements. All members are invited to attend public CCS events. Finally, all members are encouraged to list their association with CCS on their CV.

Applications for Center Membership

Applications membership for CCS can be submitted at any time. In addition, each academic year a formal call for membership nominations will be made during Fall and Spring semesters.

Membership applications are submitted to the Center Coordinator, and completed applications are forwarded to the Membership Committee. Applications are reviewed by the Membership Committee, which then brings its recommendations to the Executive Council for approval. In evaluating a candidate, we look for evidence that the individual is productively active in research related to the interests of the Center. We consider existing participation in Center activities and relevant collaboration with Center members, as well as the potential for future involvement and collaboration. The Membership Committee recommends that individuals enter as an Affiliate Member to sample the Center's program. If after a period of participation as an Affiliate Member the Center meets their needs and interests, Affiliate Members then apply to become Members. Exceptions are made by a vote of the Executive Council. The "upgrade" of membership from Affiliate to Member status requires a new application, including letters of recommendation.

Undergraduate Memberships

Undergraduate Affiliate

Approved by the Executive Council; subject to annual review.

Undergraduate Affiliates may be degree candidates in any University department or program.

Undergraduate Affiliates are typically engaged in training and research in the topics of research of the Center. Undergraduate Affiliates may participate in all Center programs:

orientation, colloquia, training meetings, research group meetings, informal discussions, and research day.

To be considered for Affiliate status, undergraduate students should submit the following materials:

- An academic transcript, and a CV as possible
- A statement of interest including current and anticipated involvement with the Center and its members
- Letter of endorsement from one Faculty Member of the Center, emphasizing the student's research experience(s)/interest(s).

Predoctoral Memberships

Predoctoral Affiliate

Approved by the Executive Council; subject to annual review.

Predoctoral Affiliates may be Ph.D. candidates in any University department or program.

Predoctoral Affiliates are typically engaged in training and research in the topics of research of the Center. Undergraduate Affiliates may participate in all Center programs: orientation, colloquia, training meetings, research group meetings, informal discussions, and research day.

Obligations of Predoctoral Affiliates include participation in, or attendance at, some Center activities as well as responding to requests for information.

To be considered for Affiliate status, pre-doctoral students should submit the following materials:

- A curriculum vitae
- A statement of interest including current and anticipated involvement with the Center and its members
- Letters of endorsement from two Faculty Members of the Center

Predoctoral Member

Approved by the Executive Council; subject to yearly review.

Predoctoral Members must be Ph.D. candidates in a program of research of interest to the Center.

Predoctoral Members contribute significantly to the community of scholars that makes up the Center. They are expected to spend a substantial amount of time at the Center and:

- Participate in center committees
- Contribute to training and research activities
- Participate in basic Center functions – journal clubs, colloquia, retreats, special conferences, fall reception, Spring Research Day
- When requested, contribute materials for research, training, grant renewals, continuation grants, and progress reports

Predoctoral Members are encouraged to apply for CCS office space (awarded as available) and may receive research support. Such support may include research and travel allotments (through the mini-grant program), supplies, equipment usage, laboratory facilities, and publication costs as budget and space limitations permit.

To be considered for Membership, pre-doctoral students should submit the following materials:

- A curriculum vitae
- A statement of interest including current and anticipated involvement with the Center and its members
- Letter of endorsement from two Faculty Members of the Center

Postdoctoral Memberships

Postdoctoral Affiliate

Approved by the Executive Council, subject to annual review.

Postdoctoral Affiliates must have a Ph.D. or other advanced degree or training in a field of importance and interest to the Center.

Postdoctoral Affiliates are invited to participate in all Center programs: orientation, colloquia, training meetings, research group meetings, informal discussion, and research day.

Obligations of Postdoctoral Affiliates include participation in, or attendance at, some Center activities as well as responding to requests for information.

To be considered for Postdoctoral Affiliate status, postdoctoral fellows must submit the following materials for nomination:

- A curriculum vitae

- A statement of interest including current and anticipated involvement with the Center and its members
- Letter of endorsement from two Faculty Members of the Center

Postdoctoral Member

Approved by the Executive Council; subject to annual review.

Postdoctoral Associates must have a Ph.D. or other advanced degree or training in a field of importance and interest to the Center. They receive support from other grant sources that should service their primary research needs.

Postdoctoral Members contribute significantly to the community of scholars that makes up the Center. They are expected to spend a substantial amount of time at the Center and:

- Participate in center committees
- Contribute to training and research activities
- Participate in basic Center functions – journal clubs, colloquia, retreats, special conferences, fall reception, Spring Research Day
- When requested, contribute materials for research, training, grant renewals, continuation grants, and progress reports

Postdoctoral Members are encouraged to apply for CCS office space (awarded as available) and may receive research support. Such support may include supplies, equipment usage, laboratory facilities, and publication costs as budget and space limitations permit.

To be considered for Membership, post-doctoral fellows should submit the following materials:

- A curriculum vitae
- A statement of interest including current and anticipated involvement with the Center and its members
- Letter of endorsement from two Faculty Members of the Center

Faculty Memberships

Faculty Affiliate

Approved by the Executive Council; subject to annual review.

Faculty Affiliates have substantive interests in the topics of research of the Center. They may be:

- Faculty at the University of Minnesota who wish to participate selectively in Center activities but who have limited time, interest, or research programs
- Faculty potentially eligible for other classes of Center membership who wish to “try out” the mutual benefits of Center participation
- Faculty visiting the University of Minnesota and faculty from area institutions who wish to participate in Center activities

Faculty Affiliates are invited to participate in all Center programs: orientation, colloquia, training meetings, research group meetings, informal discussion, and research day.

Obligations of Faculty Affiliates include participation in, or attendance at, some Center activities as well as responding to requests for information.

To be considered for Affiliate status, faculty should submit the following materials:

- A curriculum vitae
- A statement of interest including current and anticipated involvement with the Center and its members
- Letter of endorsement from two Faculty Members of the Center

Member

Approved by the Executive Council; subject to long-term review.

Faculty Members are faculty active in research of interest to the Center. Full faculty members are approved by a two-thirds vote of the current Executive Council Members.

Obligations of Faculty Membership include:

- Specialized and interdisciplinary research in Center laboratories
- Involvement with outside colloquium speakers, including preparation sessions and informal discussion hours with the visiting scholars
- Training meetings, which seek to provide familiarity with activities important to professional careers (scientific ethics, teaching, grant proposal writing, etc.)
- Contribute to the intellectual life of the Center by participating in colloquia, retreats, special conferences, Fall Retreats, and Spring Research Day
- Help with the training functions of the Center by being available to the students (this includes making laboratories available)
- Assist with the preparation of grant applications, renewals, and progress reports
- Service on Executive Council and/or CCS committees, as elected or appointed

Faculty Members benefits include voting in Executive Council elections and any other vote put to the CCS membership. Faculty Members are encouraged to apply for CCS office or laboratory space (awarded as available) and may receive research support. Such

support may include supplies, equipment usage, laboratory facilities, and publication costs as budget and space limitations permit.

To be considered for Membership, faculty should submit the following materials for nomination:

- A curriculum vitae
- A statement of interest including current and anticipated involvement with the Center and its members
- Letter of endorsement from two Faculty Members of the Center, at least one of whom is a current Executive Council member.

Affiliated Memberships

Affiliated Scientist

Ph.D. Cognitive Scientists in local industry whose expertise contributes to the Center, and who participate in some Center functions may be invited by the Executive Council to be Affiliated Scientists.

Visiting Scientist

The Center nominates and invites scientists whose work is of special interest to the Center to visit for periods of research and collaboration.

Friends of the Center

Those who are interested in the Center for Cognitive Sciences and do not currently wish to apply for membership are invited to become connected as Friends of the Center. Friends of the Center are welcome at most Center events, and can receive the weekly Center calendar and announcements through the “non-member” CCS listserv.

Executive Council

The Executive Council is the decision-making body of the Center. It determines the Center’s programs, policies, and decides on Center membership. Individuals or committees of the Executive Council coordinate specific programs and committees, such as Training, Facilities, Colloquia and Seminars, Special Programs Development, and Orientation/Retreats.

Obligations of Executive Council Membership include:

- Actively participate in the governance of the Center. Such participation includes attending faculty meetings, and chairing committee functions.

- Contribute to the intellectual life of the Center by participating in colloquia, retreats, and special conferences.
- Help with the training functions of the Center by being available to the students. (This includes making laboratories available)
- Assist with the preparation of grant applications, renewals, and progress reports.

All members shall be informed about impending issues but only Executive Council Members in residence shall vote.

The Executive Council of the Center shall consist of vote-holding Members and ex officio positions, for a total of no more than 17 individuals. An individual may serve on the Council in dual roles (i.e. as an elected member and as the chair of a committee). In such a case, the individual retain his or her vote as an elected Member, while also providing reports and counsel as the chair of the committee.

The Executive Council shall contain no more than 11 vote-holding Members total as follows. The Director, the Associate Director; six faculty members elected from the Full Membership; two pre-doctoral student representatives elected by the student membership; and one post-doctoral fellow representative elected by the post-doctoral membership.

The following individuals will hold ex officio positions in the Executive Council: the Director of Graduate Studies (DGS) of the Cognitive Science Ph.D. Program; the Executive Editor of the journal *Cognitive Critique*; the Principal Investigator of the Cognitive Science T32 Training Grant; and the Chairs of the three standing committees (Space and Research, Education and Curriculum, and Membership).

The Coordinator of the Center will serve as Executive Secretary and will have no vote.

It is expected that the Executive Council will be representative of the disciplines which comprise CCS.

Faculty member election:

The six elected faculty members serve 3-year terms except for the first election in which terms of 1, 2 and 3 years will be randomly assigned to the elected members (in groups of two) so that the times of electing new members will be staggered. Elected faculty members have a term limit of two consecutive terms (six years). Elections shall be conducted in April of each year by sending an email with a ballot including all eligible Faculty Members to the Faculty Membership. Members will return the ballot with their top three candidates rank-ordered to the Coordinator, who will tally votes.

Pre-doctoral member election:

Pre-doctoral members elect two student representatives each year to the Executive Council. Elections shall be conducted in April of each year. The Predoctoral membership will receive a ballot listing all eligible Predoctoral Members. Members will

return the ballot with their top three candidates rank-ordered to the current representative(s), who will tally votes.

Post-doctoral member election:

Center postdoctoral members elect one postdoctoral representative each year. Elections shall be conducted in April of each year. The Postdoctoral membership will receive a ballot listing all eligible Postdoctoral Members. Members will return the ballot with their top three candidates rank-ordered to the current representative(s), who will tally votes.

Director of the Center

The Director of the Center is nominated and selected by the Executive Council. Directors serve 3-year terms (renewable) at the discretion of the Executive Council and the appropriate University administrative approval. Once appointed, the Director appoints an Associate Director from the Full Membership of the Center.

Committees

There are standing committees and ad hoc committees.

Standing Committees

There are three standing committees: (a) Membership committee, (b) Space and Research committee, and (c) Education and Curriculum committee. The Chairs of these committees are appointed by the Director from the Faculty Membership of the Center and are thereby members of the Executive Council. Each committee consists of at least four members, including the Chair and one student representative. Non-student members of the committees are selected by the respective Chairs from the Center membership; student members are selected by the student body. The student member of the Membership Committee participates in policy discussions of the committee but does not review membership applications. The committees make recommendations to the Director and the Executive Council.

Ad hoc Committees

These are formed as needed based on recommendations of the Executive Council to the Director. Chairs of the committees are appointed by the Director.

Coordinator of the Center

The Center Coordinator is a University staff position. The Coordinator works closely with and reports to the Director. This position provides administrative, intellectual, and program support to Center activities; manages policy execution in all areas of Center work, including grant proposal coordination, the internal and external fellowship programs, events programming, focused research groups, community outreach, and

media contact; assists the Director in developing priorities and seeking external funding; represents the Center within the University, as needed; acts as liaison with affiliated institutions, foundations, and sponsors, as well as office staff; and helps create a lively intellectual environment for all involved. The Coordinator is selected following the rules dictated by Human Resources Management of the University.

SECTION III
CENTER FACILITIES AND SERVICES

Administrative and Support Staff

The Center provides an efficient organization of support personnel. The office staff conducts Center operations, keeping apprised of intricate disciplinary guidelines and federal and University policies and regulations. The staff advises and assists faculty and students in University and administrative procedures.

The Center office administers Center programs of research and training such as the University of Minnesota Graduate School's Cognitive Science Minor Program and Cognitive Sciences Proseminar, the Center for Cognitive Sciences Graduate Training Program, the 3M Graduate Training Program for Visibility Research, the Cognitive Neuroscience and Brain Imaging Program and the Summer Research Experience for Undergraduates Program.

In addition to managing training grants and maintaining the financial reports, the Center support staff distributes the weekly calendar information and all other program mailings, maintains the equipment inventory, office supplies, and research protocols. The staff assists members in the preparation of reports, schedules meetings and coordinates materials for various Governing Council committees, reimburses members for research allotments, completes all appointment and payroll documentation, and orders all materials to be charged to Center budgets. The Center office also dedicates much effort toward planning scholarly events, preparing and submitting proposals, advertising program information, and recruiting new members.

The support staff can be reached during the regular office hours of 8:30 to 4:30, Monday through Friday in 205 Elliott Hall.

Technical Shop Staff

Members of the shop staff may be consulted about laboratory research equipment. They are available for designing, constructing, and modifying research equipment. Specific Center projects are charged only for materials, and not for labor. Students may use the shop in 30 Elliott Hall whenever supervisory personnel are present and permission is given. To consult with the shop staff, please call 625-0515.

Apparatus Shop and Equipment

A well-equipped apparatus shop under the direction of Jim Williams is jointly supported by and serves the Center, the Institute of Child Development, the School of Kinesiology and Leisure Studies, and the Department of Psychology. Located in the basement of Elliott Hall (Room 30), the five-room facility consists of rooms and shops for design, electronics, woodworking, finishing, and metal work. Technicians are available for consulting, designing, constructing, finishing, modifying, and assisting with the development and construction of varieties of research equipment used in research

activity. Custom software development can also be arranged by this shop. The shop is available to students to use when supervisory personnel are present.

When a Center member needs apparatus work done, the following procedure should be used:

1. Fill out a 'Request for Shop Work' form available in the shop and also in the Center office. Students must obtain approval of a faculty member for the proposed project before submitting the request. **Requests to the shop must be made on these forms.**
2. Take the request to Jim Williams for an initial feasibility discussion and estimate of components and labor time.
3. Submit requests with the following information: a brief description of the apparatus, purpose of research (thesis, demonstration, publication, etc.), estimates of labor and cost of components, and required completion time.
4. Provide the budget number and any information concerning restrictions on charges. Specifications should be as detailed as possible, including sketches and special requirements. However, Jim makes the final decision on the design. He provides an estimated completion date and gives notice when the apparatus is completed.

Reference Room

A valuable asset in the Center's research and training programs is the library reference room. The collection includes books, manuals, pamphlets, reprints, journals, theses, and reference aids that are donated by Center members or purchased with grant funds, thereby providing members with ready access to library resources. Through the acquisition of new materials, the Center continues to develop these facilities for both the dissemination of ideas and the exchange of information.

All Center members, associates, and affiliates may obtain a key if they wish. Library keys are not to be loaned to non-members of the Center. Library materials should not be removed from the library. All Center members are invited to browse through the library collection and use the materials in 308 Elliott for their research and professional reading.

The Center encourages users to donate books to the library collection. *Center Trainees are expected to and Associate Members should provide the Center with a bound copy of their thesis.* Affiliate students are encouraged to contribute copies of thesis and special papers.

Computer Facilities

Computer Software

Computer Workroom

Equipment

Subjects and Experimental Rooms

Center members have access to populations of subjects in the Department of Psychology Research Experiences Pool, the Institute of Child Development Nursery School, and the University Child Care Center. Undergraduate research assistants aid Center investigators in scheduling subjects and compiling documentation of informed consent to meet University and federal guidelines. The Center has a number of small rooms where equipment can be assembled for students or faculty to perform group or individual experiments with college-age subjects and infants.

Research Protocols

Protocols involving human subjects are comprehensive statements of the purpose and design of the studies with an explanation of procedures employed to protect the rights of those subjects. *Any faculty or student investigator conducting research involving human subjects must obtain protocol approval by the University Committee on the Use of Human Subjects in Research prior to the initiation of each research project.* The Committee's approval is necessary to meet University and DHHS requirements. To obtain approval, one of the following procedures must be followed:

Summary Protocol Request for Approval

When research falls under a section of the CCS Summary Protocol, the investigator/project director submits a 'Summary Protocol Request for Approval Form.' The CCS Summary Protocol may be examined in 205 Elliott. After approval from the Executive Secretary of the Committee on the Use of Human Subjects in Research, the investigator may begin to collect data from subjects.

The 'Summary Protocol Request for Approval Form' must be signed by the departmental reviewer under whose section of the Summary Protocol the research most directly falls. Forms are available from the Center in 205 Elliott. After completion by the department reviewer, the forms are forwarded to the Committee on the Use of Human Subjects in Research. Copies of studies falling under the CCS Summary Protocol are kept on file.

Review of Individual Projects

If research does not fall under the CCS Summary Protocol, or if the investigator is applying for a grant from DHHS or other funding agencies, individual review is necessary. Applications for 'Review of Individual Projects' must be submitted on the appropriate form to the office of the Committee on the Use of Human Subjects in Research. Researchers need to allow three weeks for processing.

For projects funded by DHHS or other funding agencies with similar requirements, annual review is necessary. Renewal forms are sent to the principal investigator of each project.

REP (Research Experience Program) Procurement

To obtain student participants through the Department of Psychology, the researcher needs to complete an application form, available from the Undergraduate Psychology Office, 112 Elliott. This form must be submitted by noon on Friday of the first week of the semester. (These applications must be turned in on time; be sure to check with the Undergraduate Psychology Office to be certain that you have the correct deadline date.)

Informed Consent

Informed consent is an individual's voluntary agreement to become a subject of research after being informed of the purpose of the study, the procedures to be employed, and potential risks and benefits. Documentation of the process (oral or written) used to obtain consent must be submitted to the Committee on the Use of Human Subjects in Research with either the 'Summary Protocol Request for Approval' or the Individual Review forms. If the consent form is oral, the researcher needs to include a copy of the statement read to the subjects. If consent is implied by the return of a questionnaire, the researcher needs to include a copy of the letter of solicitation.

Duplicating

Materials, including library materials, that contribute directly to the Center may be photocopied. Such materials would include committee work, drafts for co-authors in the Center, experimental instructions, and material for the Center library. *The Center does not copy materials that contribute indirectly to the research of the Center, nor is it for*

personal use or for other non-Center projects in which a Center member is involved. This includes copies of research related articles, papers for the convenience of Center members, and classroom or seminar materials.

In addition to the public copy machine locate in the Psychology Department mail room, machines are available in Norris Hall, Johnston Hall, Walter Library, and Kolthoff Hall. Off campus duplicating services in Dinkytown and Stadium Village.

Mail

The Center provides postage for Center-related mail.

Telephones

There are several telephones available for use by Center members. *All long distance calls must be reported to and approved by Center staff.* Users must restrict long distance calls to Center business only. No personal long distance calls may be charged on any University of Minnesota telephones. Such use constitutes avoidance of state and federal taxes and can not be permitted. Personal calls must be charged to your home or to a credit card.

Keys

Student members may receive keys to their office, the Center library, the building, and the computer room. All keys must be turned in to the office upon completion of training. (If keys are lost, students will be charged \$10.00 for each replacement key.)

Special Laboratories

Center members may use any of several special purpose research facilities. These laboratories have been equipped with funds from individual staff research grants and Center funds. The faculty member most directly with the laboratory directs it. Requests for use of these special laboratories, or for borrowing any of their equipment, must be made to the faculty member in charge and they have the final authority.

SECTION IV
COMMUNICATION

Because Center personnel are spread out across campus, it is important to have a system of communication that is fast and efficient. The following modes of communication are available to keep members informed, and interaction at a maximum.

The Center is housed primarily in Elliott Hall, in close proximity to the departments with which the faculty and the students are allied, making interaction and participation accessible and cohesive. The Center provides many resources, listed below, that the faculty and students may draw upon to facilitate research and training.

Calendar

Every week during the regular school year, the Center publishes a list of seminars, colloquia, special meetings, and announcements of interest to Center members. Members who organize meetings are responsible for submitting all pertinent information to the Center office *by 3:00 pm Wednesday* for inclusion in the calendar for the following week. The calendar is distributed to all Center members and interested persons in related areas of research. The calendar will be distributed through email. If you wish to receive the calendar through email, please give your address to the Center coordinator. Center members are urged to use the calendar as a means of informing their colleagues of all on-going research activities.

Colloquia

A weekly program is held in which Center members and researchers from other University departments present results of recent research or plans for future research. These sessions have proven extremely valuable as a training device. They provide a testing ground for students and keep Center members informed in a detailed manner about one another's activities and the work of others. Notices of these events are sent to all Center members and to a mailing list of interested researchers. In addition, visiting scholars from institutions outside the University of Minnesota are invited to present formal lectures and to meet informally with students and faculty to discuss a particular research topic. These presentations are coordinated by the two Colloquium Committees.

Minutes

Minutes are kept at all Governing Council meetings. These are public and are circulated to Center Executive Council, Full and Faculty Associate members.

Student Reports

Center trainees and associates report in the spring on their research efforts, progress in courses, and other aspects of their training. As appropriate, trainees are interviewed by

the Director of Training or their advisors, and their progress is evaluated by the Governing Council. These reports and interviews are intended to provide feedback to the student about their progress as well as inform Center staff about the activities of the trainees. These evaluations are confidential.

Forwarding Address Information

If you plan to re-locate or change professions, please advise the Center office the following information for reporting purposes: your forwarding address, what you will be doing, and whether or not you wish to remain on the Center's mailing list.