



CCCPE CERTIFICATION APPLICATION INFORMATION AND GUIDELINES

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A. INFORMATION ON CERTIFICATION AND GUIDANCE TO APPLICANTS

1. GENERAL INFORMATION

The Association of Canadian Ergonomists describes Ergonomics as follows: **Ergonomics is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance. Ergonomics promotes a holistic approach in which considerations of physical, cognitive, social, organizational, environmental and other relevant factors are taken into account.**

The process and criteria described herein are geared towards those individuals who are engaged in the practice of ergonomics as their primary work. Similar to ergonomics certifications in other countries, the CCCPE certification is intended for applicants who can demonstrate that their education addresses the entire breadth of the ergonomics discipline and that they have been devoting the majority of their work time to the application, practice and/or teaching of ergonomics. It is not intended for those who spend the majority of their time in management or administration.

One of the main arguments for creating a certifying body for ergonomists in Canada is to protect the consumers of ergonomics work (e.g., employers, clients, students) from those who hold themselves out as “ergonomics experts” without having appropriate qualifications. Therefore, the certification process must ensure that the applicants have:

- The knowledge and skills necessary to work in the discipline,
- Adequate familiarity and competence with the tools and methods used to apply their knowledge and skills in the field, and
- Experience with the application of the tools, and feedback on their use.

A successful applicant for certification will be designated by the Board as a **Canadian Certified Professional Ergonomist (CCPE)**. An individual who meets the education criteria but has not yet obtained the requisite professional experience will be designated by the Board as an **Associate Ergonomist (AE)**.

The onus is on the applicant to obtain the education and professional experience required by these criteria. Furthermore, the onus is on the applicant to provide the Board with the necessary evidence of such education and experience to enable them to make a fair and proper assessment.

The certification process and requirements from candidates are described below. Individuals may apply for certification

- Based on education and four years experience, including one mentored year
- Based on education and five years experience
- Based on 10 years experience (mature candidates)

Other than for mature candidates, the criteria for education must be fully met before any work experience will be counted towards the professional experience requirements. The only exception to this is relevant ergonomics experience obtained as part of an educational program. Details are found in Section 3.

2. EDUCATION REQUIREMENTS

Education requirements for Canadian Certified Professional Ergonomist (CCPE) status and for Associate Ergonomists (AE) status are listed in Table 1.

2.1 Mature Candidates

It is recognized that many of the senior members of the ergonomics community in Canada obtained their education at a time when there were no programs that provided ergonomics focus. As a result of this, it would be impossible for them to demonstrate compliance with the educational criteria without attending courses which, in many cases, they are already qualified to deliver. For CCCPE Board purposes, mature candidates are those whose first **degree was awarded by December 31, 1996**. These candidates may provide evidence of 10 years of full-time equivalence (see section 3 for definition) professional experience which meets the competencies required in lieu of educational qualifications or mentored experience. However, they must still give a description of their educational background and provide transcripts.

2.2 ACE Full Members*

Full Members applying in the 4 or 5-year categories may present evidence of meeting the educational requirements by simply submitting the transcripts for their university courses. The Board reserves the right to ask for more detail, should that be necessary, and to deny certification if education does not meet requirements as listed in Table 1.

* note that “Full Member” is a former category of membership that was terminated at the 2001 AGM when the current membership structure was implemented and required submission of transcripts and work product examples. If you are not sure whether you were a Full Member, please contact the ACE National Office.

2.3 BCPE Holders

BCPE holders are considered to have met the educational requirement upon submission of evidence of BCPE certification.

2.4 All Other Candidates

Applicants must have at least a Bachelor’s degree in ergonomics or a cognate program (e.g. psychology, kinesiology, industrial or systems design engineering) including the areas of knowledge, contact time and other stipulations. Contact time refers to official time spent with an instructor in a classroom or laboratory. For example, 3 hours per week for a 1-term, 12-week course, counts as 36 hours contact time.

The applicant’s educational background will be assessed against the Table 1 criteria, through an inspection of credentials and other evidence submitted by the applicant (e.g., transcript, course descriptions).

To demonstrate that they meet educational requirements, applicants must provide the following:

- Official Transcript(s) for all ergonomic and related courses proposed as a basis for certification
- Completed **Education Course Description Log** (see application form)
- Completed **Education Course Hours Log** (see application form)

The majority of educational requirements are to be met through courses eligible for credit towards a bachelor’s or higher degree. However, we recognize that not all universities offer the full range of courses required to meet CCCPE education requirements and that workshops, seminars, and non-university accredited courses can fulfill a need in ergonomics education, especially in relation to practical techniques.

We are willing to accept a small part of the education requirements being met through non-accredited courses under the following conditions:

- The course is taught by a CCCPE, BCPE or CREE certified individual, or by an ACE Fellow, or by an individual who is on faculty at a university or college whether full-time, part-time or adjunct

- The applicant provides documentation of the course content and the instructor's qualifications for designing and teaching the course
- The course is at least 6 hours in length
- The Board agrees that the course meets particular educational requirements

“FIELD WORK”. Candidates should indicate clearly how much time was spent in “Field Work” presented as part of the Education Requirements (Table 1) and separate this from the experience claimed under “Professional Experience”. Field work, or the application of ergonomics, is part of the educational requirement, but a portion of this may be applied to the professional experience requirement described in Section 3, below. The same field work time may not be applied to both the education and experience requirements. Information on field work must specify what was done (e.g., testing or data collection in an industrial environment, job analysis, work place assessment).

3. PROFESSIONAL EXPERIENCE REQUIREMENTS

3.1 Professional experience requirements for certification are:

- Either four years full-time equivalent, including one mentored year
- Or five years full-time equivalent,
- Or 10 years full-time equivalent (Mature Candidates only)

The applicant will have to indicate the desired basis of evaluation at the time of application.

In order for a time period of experience to count towards the “**full-time equivalent**” criteria listed herein, at least 50% of the applicant's professional activities must have been in the direct application of ergonomics during that period. An **Employment History Log** is provided in the application form in Part B in order to calculate total full-time equivalent. For example, two calendar years of experience, evaluated as containing 50% direct application, will count as a full-time equivalent of one year. Two calendar years of experience evaluated as containing 75% direct application will count as a full-time equivalent of 18 months. However, two calendar years of experience evaluated as containing 30% direct application cannot be counted towards any full-time equivalent. This reinforces the intent that this certification process be directed towards those who practice ergonomics as their primary work. Activities such as administration, management or contract monitoring are not considered to be direct application of ergonomics.

3.2 Professional experience acquired during enrolment in an educational program

The Board of the CCCPE encourages acquisition of ergonomics field experience during the formal education program of ergonomists.

The field experience might comprise, for example, ergonomics practica, summer jobs, full time employment while a part time student, ergonomics employment between degrees, cooperative education placements, extensive applied field work for a course credit. The intention is that the type of work that is presented as field work is actually practicing ergonomics in a work setting of some sort. Whether research will be accepted or not will depend on the nature of the research and its location with consideration for whether the work is practicing ergonomics or not, in the judgment of the Board.

The onus is on the applicant to provide, at minimum, a description of the work done and the competencies that are being claimed. For those claiming professional experience for degree-related work or work done prior to completing educational requirements to the satisfaction of the Board, documentation is also required that confirms that the **CONDITIONS** listed below, are met. Applicants may submit additional documentation if they wish. The number of months of credit

towards “professional experience” to be awarded will be decided by the Board of CCCPE. The Board’s assessment will be influenced by the apparent quality of the work experience as reflected by the description and reports on the work experience or some aspect of it. For experience presented for credit prior to completion of educational requirements the Board will also consider the degree of supervision for each placement; whether the supervision was by a certified ergonomist or by someone else; the ergonomics content of each placement, and comments by the employer.

- **If CCCPE Education Requirements HAVE BEEN COMPLETED prior to further education:**

(This section could apply, for example, to applicants who are pursuing graduate studies and have been practicing ergonomics between degrees and whose minimum ergonomics education is assessed by the Board to have been satisfactorily completed during their first degree).

- Applied ergonomics field work that is unrelated to the degree **may receive full credit** towards “professional experience” provided that it has not already been credited towards the educational requirements or the Mentored Experience option.
- Ergonomics work that is done for course credit, including thesis work, may receive up to 50% credit toward “professional experience” to a maximum of eighteen months for time spent on this type of work provided the **CONDITIONS** below are met.

- **If CCCPE Education Requirements HAVE NOT YET BEEN COMPLETED to the satisfaction of the Board:**

- **(This section would apply, for example, to applicants who have obtained ergonomics experience via practica or co-op work terms during pursuit of a first degree or are pursuing graduate education to satisfy the ergonomics education requirements).**

- The Board may accept up to half (1/2) of the total duration of ergonomics field experience, to a maximum of 1 year of ‘Professional Experience’ provided the **CONDITIONS**, below, are met.
- 300 hours of this experience (approximately 8 weeks) may be used to meet the Education requirement of ‘Field Work’ (Table 1) but the time then cannot also be used for “Professional Experience” credit.

CONDITIONS for crediting work experience obtained while enrolled in an educational program:

- The experience involved working with human participants and;
- The experience involved practical application of ergonomics and;
- The work was a supervised, full time paid or unpaid position for a minimum duration of 8 consecutive weeks and;
- The ergonomics field content is documented by the employer or university faculty member and;
- The performance of the applicant is evaluated by the employer and/or officially by the educational institution.

Table 2 lists the professional experience competencies that must be demonstrated for certification. .

TABLE 2: COMPETENCIES FOR PROFESSIONAL EXPERIENCE**Preliminary Project Definition – demonstrate 4 out of 5 competencies: 1, 2 and two others.**

1. Initially assessing and evaluating an ergonomics problem or proposed ergonomics project **OR** Designing and conducting an ergonomics study or investigation.
2. Critically reviewing, synthesising and utilising existing research-based knowledge to inform the evaluation, study design, interventions or other solutions.
3. Establishing a consultant relationship with other professions involved in a design project.
4. Securing the collaboration of interested parties (executives, managers, supervisors, operators, union representatives, customers, clients, other users).
5. Recruiting and securing the collaboration of persons whose activities form the major focus of interest in the project.

Systematic Analysis – demonstrate 3 out of 4 competencies: 6, 9 and one other.

6. Conducting a systematic analysis: of the relevant activities in the work setting, or of products, or of services.
7. Collating, analyzing and interpreting data and statistics derived from data.
8. Verifying appropriateness and correctness of problem definition and assessment or intervention.
9. Preparing succinct ergonomics technical report that includes conclusions and recommendations supported by analysis of data that are presented in an appropriate manner relevant to the project or problem, and relevant scientific literature.

Participation in the Design Process – demonstrate 3 out of 5 competencies: 13 and two others.

10. Identifying design specifications from the systematic analysis to meet the project objective.
11. Preparing design specification report for use by industrial designers, engineers, computing scientists, systems analysts, architects or other professionals.
12. Working in a design team or as a consultant to supervise the application of solutions in the workplace.
13. Evaluating effectiveness of design of products, services or work processes against design objectives (e.g. usability, cost, risk reduction).
14. Using economic considerations in ergonomics interventions.

Other Competencies – Demonstrate 2 out of 3 competencies: 15 and one other.

15. Demonstrating integration of, or ability to integrate, biophysical, perceptual, cognitive and psychosocial considerations in ergonomic evaluation of existing design or recommendations for design changes in products, services or work processes. Many disciplines underpin effective ergonomics design. They include, but are not limited to physiology, perceptual and cognitive psychology, engineering, biomechanics, organisational behaviour, sociology, social psychology, economics. Proper ergonomics design considers physical, perceptual, cognitive, behavioural and social abilities, limitations and needs of all people in the system.
16. Preparing succinct and comprehensible materials and verbal presentations that communicate the application of ergonomics information and methods to a range of audiences (e.g. workers, employers, other professionals).
17. Demonstrating experience and understanding of project management including timeliness and critical path, allocation of resources and progress monitoring.

3.3 All Candidates

The required total full-time equivalent experience must demonstrate competencies as required in Table 2. To this end, all candidates must submit the following documentation:

- **Work Products**

Professional experience will be evaluated on the basis of work products such as publications, reports, design specifications, or other equivalent documents submitted by the applicant. Candidates should describe competencies met by each work product. Several different work products must be submitted that represent the entire work period being counted. It is preferable that these documents demonstrate application of the multidisciplines upon which ergonomics draws (see Table 2, competency 15). The samples must not all be replications, for example, of similar evaluations of office or industrial workplaces. At least the candidate must demonstrate that they are aware of the multidisciplinary nature of ergonomics even if their work experience has not permitted use of a broad range of the various disciplines.

If relevant reports or other information are confidential, applicants **must** blank out the names and photos of persons and companies in the report and obtain permission from employers or clients to use the material prior to review by a Board Member. The Board will guarantee confidentiality.

- **Testimonials**

Applicants are encouraged to provide brief testimonials from the users of their ergonomic services that relate to the work presented in their application.

- **Work product logs and marking of sections**

The applicant shall fill in a Work Product Log provided in the application package, indicating which documents, and which sections and pages of those documents relate to the various competencies. The applicant shall also mark those sections in the work products with post-it notes indicating which sections are relevant to which competencies. Each work product submitted should be accompanied by a **Work Product Summary** using the format shown in the application package so that the Board can understand the context and the compliance with the criteria in Table 2. The applicant **must** indicate their role in the work, for example, supervision, data collection, and report writing, as well as the industry, business or service sector and context. One document can be used to demonstrate competencies in several areas but submission of at least three documents is required.

- **Employment history logs**

The applicant shall also fill in an Employment History Log in the application package, providing an employment history indicating employers, position worked, period of time and percent time in the direct application of ergonomics. Academic applicants should fill in the **Employment History Log for academics**. Teachers of ergonomics should fill in the **Teaching Course Details Log**.

- **Curriculum Vitae (C.V.)**

The applicant shall submit a C.V. showing education, employment history, and separating peer reviewed and non-peer reviewed publications and conference papers.

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3.4 Candidates under: Experience of 4 years full-time equivalent, including one mentored year

A candidate must demonstrate a total of at least four years full-time equivalent experience (see beginning of Section 3 for definition) including one year full-time equivalent mentored year. In evaluating an applicant's professional experience, only that experience gained over the 8 years prior to the application will be considered.

The mentored year of experience must occur **after** educational qualifications have been fully met to the satisfaction of the CCCPE Board. This means that those intending to apply in this category should apply for Associate Ergonomist to have their educational qualifications assessed by the Board. It is not mandatory to do this but risky not to do it.

A maximum of 100 pages of relevant material will be considered per candidate (reports sent in may include other materials which the reviewer is not expected to read).

Applied field work carried out as part of an educational program may be counted towards Mentored Experience if educational qualifications have been fully met and provided that the field work has not already been credited towards the educational requirements. Furthermore, the full-time equivalent credit for such field work will be limited to a **maximum of three months**.

Mentored Experience is professional experience which has been overseen by a qualified individual (i.e., a mentor). For the purposes of this certification, a mentor must be a Canadian Certified Professional Ergonomist or a full Member of ACE or another IEA Federated Society at the time the mentoring takes place. This individual will, as a minimum, have inspected the work of the applicant from time to time and have provided feedback and guidance as required. It is not necessary for the mentor to have been the applicant's direct supervisor during the Mentored Experience period, nor does the mentor have to work for the same company as the applicant. Furthermore, the mentor does not have to accept responsibility for the applicant's work.

Short periods of professional experience gained under a series of mentors can be added together towards the requirements for one year (full-time equivalent) of Mentored Experience. Testimonial from all mentors will be required. The one year of Mentored Experience does not have to precede the remaining professional experience required for certification. The equivalent of one year of Mentored Experience must, however, be accumulated within a time period of three calendar years.

In order to be credited with Mentored Experience, the applicant must have demonstrated at least the required competencies from each of the four major categories listed in Table 2. The mentor(s) will provide written testimonials as to the proficiency of the applicant's work as related to the competencies in Table 2. He, she, or they must also attest to the nature and the duration of the mentoring activity. Guidelines for Mentors are found in section A3 and on the ACE website in the Professional Certification section.

3.5 Candidates under: Experience of 5 years full-time equivalent

The candidate must demonstrate a minimum of five years full-time equivalent experience (see beginning of Section 3 for definition) In evaluating an applicant's professional experience, only that experience gained over the 10 years prior to application for certification will be considered.

A maximum of 100 pages of relevant material will be considered per candidate (reports sent in may include other material which the reviewer is not expected to read).

Because of the applied nature of the ergonomics discipline, the teaching of an ergonomics course at a recognized educational institution (i.e., university or college) shall be counted as "direct application of ergonomics" for the purpose of calculating the percentage of qualifying work. An

“ergonomics course” is a full term course covering one or more areas of knowledge listed in Table 1 and is taught with reference to and examples from the practice of ergonomics.

3.6 Candidates under: Experience of 10 years full-time equivalent (Mature Candidates)

Mature Candidates are those whose first degree **was awarded by December 31, 1996**.

The candidate must demonstrate a minimum of 10 years full-time equivalent experience (see beginning of Section 3 for definition).

In evaluating an applicant’s professional experience, only that experience gained over the 20 years prior to application for certification will be considered.

A maximum of 200 pages of relevant material will be considered per candidate (reports sent in may include other material which the reviewer is not expected to read).

Because of the applied nature of the ergonomics discipline, the teaching of an ergonomics course at a recognized educational institution (i.e., university or college) shall be counted as “direct application of ergonomics” for the purpose of calculating the percentage of qualifying work. An “ergonomics course” is a full term course covering one or more areas of knowledge listed in Table 1 and is taught with reference to and examples from the practice of ergonomics

4. EXCEPTIONS

Any single document regarding certification cannot hope to address every possible combination of education and experience that may be possessed by someone who should rightly qualify for certification. It is recognized that a gap exists between the proposed criteria for recently graduating members and those for mature members. For example, an individual’s education may meet 75% of the areas of knowledge and contact time criteria, and he or she has been practicing ergonomics (and demonstrating the required competencies) for seven years on a full-time basis. The CCCPE Board will be open to considering such applications on a case-by-case basis. The onus will be on the applicant to show why, if their educational background does not meet the criteria, their professional experience should make up the shortfall if it is less than a full-time equivalent 10 years.

5. THE CERTIFICATION PROCESS

The following are steps in the certification process:

1. A candidate applying for CCPE certification requests an application kit from the Canadian College for the Certification of Professional Ergonomists (CCCPE) and submits the complete application to the CCCPE together with an application fee of \$325.00 plus 6% GST (\$344.50). A candidate applying for certification as an Associate Ergonomist submits their application (the professional experience portion need not be completed) with an application fee of \$50.00 plus 6% GST (\$53.00). When an Associate Ergonomist applies for full certification as a CCPE at a later date, the certification fee to be paid will be reduced by \$50.00.
2. The applicant must provide two copies of the application file in a binder form. The application file includes a completed application together with documents supporting certification in a binder form, with a summary page at the beginning outlining qualifications for membership and tabbed sections for each of the three aspects of certification: education, mentoring, and professional experience. All applicants must also provide a C.V. showing education, employment history, and separating peer reviewed and non-peer reviewed publications and conference papers. The application cannot be returned to the applicant once it has been submitted.

3. When a completed application is received, it is reviewed to ensure it is complete. If the application is not complete, the candidate will be notified of the missing portions. Once complete, applications will be reviewed by two Board members fluent in the language of the application.
4. The applicant's educational background is assessed against the criteria in Table 1. If the education criteria are not met, the applicant is informed of this finding and details are provided regarding criteria that were not met. If the criteria are met, an effective date of completion of education is determined for the purpose of measuring the experience component. If the applicant is seeking the Associate Ergonomist designation and the education criteria have been met, then the applicant is so informed. Recognition as an Associate Ergonomist is limited to a 5-year period, during which the candidate is expected to apply for full CCPE status. This period can be extended only upon request to and approval by the Board for good reasons. Extension is not automatic. Associate Ergonomist status is intended to be temporary, not a continuing status.

For applicants seeking the Canadian Certified Professional Ergonomist designation, the documented experience is evaluated against the full-time equivalence and competency criteria for the basis requested by the applicant (e.g., four years (includes one year of mentored experience), five years, or 10 years (mature candidate)). If the reviewers do not believe they have sufficient information to carry out a proper evaluation, the applicant will be contacted for further evidence. If, after completing the review, the professional experience and educational criteria are met, the certification is granted. If the criteria are not met, the applicant is informed and provided details regarding gaps between his or her experience, education and the relevant criteria.

5. Applications are handled in two cycles each year. Applications received before March 1 of a given year will be fully processed by September 1 of the same year. Applications received before September 1 will be processed by March 1 of the following year.
6. Once certified as a CCPE or as an Associate Ergonomist, the annual fee for Certificate renewal is \$100 plus the cost of ACE membership for the "Member" category (note that a CCPE or AE may elect not to take advantage of the ACE membership but the cost must be paid regardless), plus 6% GST (\$106.00) payable on notification of certification.

6. OTHER ISSUES

6.1 Code of Ethics

All Canadian Certified Professional Ergonomists, by virtue of their application for such designation, will agree to be bound by the CCCPE Code of Ethics found on the ACE website in the Professional Certification section.

6.2 Disciplinary Action

Where a violation of the Code of Ethics has been alleged, investigated, and proven, the Board may initiate disciplinary action against the Certified Ergonomist in question. The specifics of such action will be decided upon by the Board but could include temporary suspension or permanent revocation of the Certificate.

6.3 Appeals

An appeal process is available to any applicants who feel they have unjustly been denied certification.

6.4 Recognition of Other Ergonomics Certifications

The Board will continue to examine the question of negotiating a mutual recognition agreement with other certifying bodies (e.g. BCPE, CREE). For the present, applicants with BCPE certification are recognized as having met CCPE educational requirements.

6.5 Maintenance of Competency

All designated Canadian Certified Professional Ergonomists should maintain competency and keep up-to-date with the latest knowledge and methods employed in the ergonomics discipline.



Canadian College for the Certification of Professional Ergonomists
Conseil canadien de certification des praticiens en ergonomie

Suite 1003, 105-150 Crowfoot Cr. NW, Calgary, AB T3G 3T2 Tel/Tél: (403) 219-4001 Toll Free/Sans frais: 1-888-432-2223
Fax/Télcx: (403) 451-1503 Internet/site d'Internet: www.ace-ergocanada.ca E-mail/Courriel: info@ace-ergocanada.ca

B. APPLICATION FOR CANADIAN CERTIFIED PROFESSIONAL ERGONOMIST (CCPE)

Please refer to CCPE checklist to ensure that all sections of the application have been completed as required.

Mr. Ms. Mrs. Dr. First name Surname

Position/Title

Organization

Preferred mailing address: Business Residence

City Province Postal Code

Telephone Facsimile

Email

I am making application for CCPE certification based on the following:

- A. Education and four (4) year's experience including one (1) mentored year
B. Education and five (5) year's experience
C. Ten (10) year's experience. First degree awarded by December 31, 1996.

I am making application for Associate Ergonomist (AE) based on education

I apply to the Board of the Canadian College for the Certification of Professional Ergonomists for recognition as a Canadian Certified Professional Ergonomist / Associate Ergonomist and for the right to describe myself as such.

I undertake, if so recognized, to adhere to the Code of Ethics of the College and to pay such fees as may be determined from time to time by the Board.

I hereby declare that I have received all permissions necessary to include confidential documents with this application. I also declare that all work submitted for documentation of my accomplishments is my own or, when co-authored, that I played a substantive role in the work.

Signature: Date:

Payment (cheque/money order payable to CCCPE) in the amount of:
CCPE Applicants: \$344.50 (\$325.00 + \$19.50 GST)
Associate Ergonomist Applicants: \$53.00 (\$50.00 + \$3.00 GST)
must accompany your application.

Note: GST changes to 5% as of January 1, 2008. Please make appropriate adjustments.

SUMMARY PAGE

Please summarize your education and professional experience to give the Board an overview of what you have done in Ergonomics to deserve certification.

Please note the specific option under which you are applying.

Please state the date on which your educational requirements for certification were completed (generally at the end of a bachelor's degree, but for some candidates, only after completing some or all of their graduate work).

Please indicate if any professional experience is being claimed prior to the date of completing the education requirements.

EDUCATION

Please complete the following *Education Course Hours Log* and *Education Course Description Log*. Note that lecture hours are defined as the official time spent in the classroom or lab with the instructor.

ACE Full Members applying in the 4 or 5-year categories may present evidence of meeting the educational requirements by simply submitting the transcripts for their university courses. The Board reserves the right to ask for more detail, should that be necessary and to deny certification if education does not meet requirements.

BCPE holders are considered to have met the education requirement upon submission of evidence of BCPE certification.

A. Education Course Hours Log

Areas of Knowledge	Course Number and Lecture hours*					Total Lecture Hours
	e.g. SFU Kin 486					
A1. Ergonomics Approach	2					
A2 Ergonomics and Society						
A3 Ethics and Code of Practice						
A: Total required lecture time: 25 hours	2					
B1 Work Evaluation and Investigation	4					
B2 Work Activity/Analysis	5					
B3 Introduction to Ergonomic Design	6					
B4 Instrumentation						
B5 Ergonomic Interventions						
B6 Laboratory work						
B: Total required lecture time: 240 hours	15					
Total required laboratory time: 100 hours						
C1 Anatomy	2					
C2 Physiology						
C3 Biomechanics and Anthropometry						
C4 Human Psychology	2					
C5 Organizational Design and Management						
C: Total required lecture time: 135 hours	4					
D1 Quantitative and Qualitative Design and Analysis						
D2 Systems Theory						
D3 Technology						
D: Total required lecture time: 100 hours	0					
E1 Workplace Design	6					
E2 Information Design	6					
E3 Work organization and Design						
E4 Health, Safety and Well-being						
E5 Training and Instruction						
E6 Occupational Hygiene						
E7 Architecture	2					
E8 Participatory Design Process						
E9 Work-related Musculoskeletal Disorders						
E10 Human Computer Interaction	5					
E: Total required lecture time: 100 hours	19					
Total Course Contact Hours	40					
Total required lecture time (A,B,C,D,E): 500 hours						
Total required laboratory time (B): 100 hours						
Total required fieldwork (8 weeks): 280 hours						

B. Education Course Description Log

Knowledge Areas	Course Name	Contact Time	Description	University/College	Dept/Program	Teacher	Course Book
A1,B1,B2, B3,C4,E1,E 2,E7,E10,F W	Human Factors in Industri al Design KIN48 6	45h	The theme of this course is the role of human factors in the design process. The objective of the course is to explain how human factors/ergonomics knowledge is incorporated into the design process in order to improve safety, comfort, usability and efficiency within the working environment. Case studies will be used to illustrate the role of human factors/ergonomics in design. Course assignments will focus on the solution of practical design problems. Topics covered include: Introduction to the design process; Product design ; Design of information displays; Design of manual materials handling; Workstation design; Design of the working environment; Organization of the workplace	Simon Fraser Univ	Kin	Arnold Darvill Robinson Murphy Weeks Morrison	Saunders and McCormick

PROFESSIONAL EXPERIENCE

(to be completed by CCPE applicants only)

A1. Work Product Summary

Please complete one of the following *Work Product Summaries* for each of the work products submitted. Please remember to mark the relevant pages of each Work Product presented with post-it notes indicating what sections are relevant to what competencies from Table 2 of **Part A - Information on Certification and Guidance to Applicants**. Please attach testimonials if available.

Example Work Product Summary

Work Product	Ergonomic evaluation of a consumer product	
<i>Summary of Project</i>	The ergonomic team was asked to provide input into the design of a mop and bucket package. The analysis initially involved performing a task analysis of the typical uses of the product. This was done through interviews with typical user groups and the design team. Following this, the existing version of the mop and bucket was analyzed, and a variety of human factors issues were identified that could impact on usability of the product. During the re-design phase, I worked closely with the design team, analyzing and testing new concepts as they were developed, and providing feedback on human factors issues. The resulting modified product then underwent usability testing, based on both functionality and design criteria. Several additional modifications were made to the design following usability testing. The product has been re-released, and sales have shown increased user satisfaction with the design.	
<i>Applicant's role in the work</i>	I was the project leader.	
<i>Industry Sector and Context</i>	Household Consumer Product. The client had complaints back from users about the product and the design team were told to get an Ergonomist involved. There was initial resistance to the input by the Ergonomists. However, the final design modifications had buy on by all parties.	
<i>Compliance with Competency Requirements</i>	Competency/Tab	Compliance
	1, 2	Assessed the ergonomics problem, developed initial proposed intervention supported by existing research literature.
	4, 5	Worked with customer support group, marketing and design team to understand problem.
	6	Undertook task analysis and observations with representative users
	10, , 12, 13,	Identified user-centred design issues, prepared design specifications and worked with design team to redesign product. Tested redesigned product with user group. Fed design modifications back to team
	11, 14	Prepared report for client that included estimated cost and pay back time of financial investment to redesign product.
	15	Design required use of anthropometric, economic and biomechanical knowledge as well as psychology of user interface and the social psychology of implementing change smoothly.
	17	Kept the project on time using critical path analysis and monitoring of achievement of milestones as the project evolved.

A2. Work Product Log

Please summarize the work products and testimonials submitted in a work product log.

Example Work Product Log

No.	Work Product	Competency	Page
1	Tool Design Standard	1 2 3 8 14 17	11 15-20 12-17 1-5 1-5 3
2	Office Ergonomic Assessment	7 10 11 15	2-3 1-5 3-4 1-5
3	Published Paper	4 5 6 8	9-10 9-10 19, 23 10-14
4	Client Testimonial	6 8 9	1 1 2
etc.			
7			

A3. Guidelines For Mentors (if applicable)

Qualifications of the mentor

For the purposes of this certification, a mentor must be a Canadian Certified Professional Ergonomist or a Full member of ACE or another IEA Federated Society at the time the mentoring takes place.

Agreement to be a mentor

Indicate your areas of expertise and see if you can mentor the applicant in accordance with her/his professional activities during the mentoring period.

Role of the mentor

In the first meeting, review the CCCPE Competencies list with the applicant to identify objectives that she/he would like to get out of the mentoring process by the end of it. These initial objectives should be reviewed periodically to see if they need to be changed.

You are required to be in contact with the applicant at least once a month to review work progress and provide guidance. Phone conferences and email messages are legitimate forms of communication, but periodic face-to-face meetings are also important. Get the applicant to take notes on the course of the discussion at each meeting and email them to you. Make this a requirement and put the onus on the applicant to do it. Get the applicant to use these notes, as appropriate, as agenda items for the next meeting. This

makes it easier to remember what was discussed at the previous meeting and how things are progressing. These notes will help you see if some progress is being made and work out some kind of progression of sophistication with the applicant over the mentoring period. Ask the applicant to provide work products for you to review. Provide the applicant with feedback and guidance as required.

If you are not the applicant’s supervisor, the applicant needs to ensure that there is contact between you and the supervisor with respect to her/his general performance on the job.

Once the mentored period is complete, you are required to provide a written testimonial which covers duration and form of relationship, dates of meetings and progress reports. The testimonial should include a list of competencies from Table 2 and a description of how and when the applicant demonstrated these competencies and to what level (adequate/satisfactory, moderate level, high level). Your report should be countersigned by the applicant and returned with her/his application.

B1. Employment History Log (All Candidates)

Please complete your *Employment History Log* as shown in the example

DATES		TIME		Mths	%	FTE*	EMPLOYER	POSITION	Supervisor
From	To								
01/95	06/96	18	50	9		Ergosomething (Toronto)	Associate ergonomist	Jean Marinaro	
Total				9					

* FTE: Full Time Equivalent.

At least 50% of your time must be spent in direct application of ergonomics for any one period to be counted towards certification requirements. For employment during the last five years, please provide the name of your Supervisor. The total of the FTE column must meet the Professional Experience requirements for your category of application. Please attach your C.V.

B2. Employment History Log (for Academics)

Please complete the following *Employment History Log* if you hold or have held an academic position. Time spent on each of the Activities **A** to **D** should be provided for each academic position held.

Academic Position	Department	University	Period	Activity	Months
Associate Professor	Physical Science	UNBC	12/90 to 11/95	A. Preparation and teaching of ergonomics courses	5
				B. Ergonomics Research time	12
				C. Supervision of student undertaking ergonomics work	16
				D. Practical application of ergonomics in the field (consultancy)	6

Please complete the following Teaching Course Details Log if you have taught ergonomics-related courses.

B3. Teaching Course Details Log (for Teachers of Ergonomic Courses)

Knowledge Areas	Course Name	Contact Time	Description	University/ College	Dept/ Program	Teacher	Course Book
A1,B2,C4,D3,E2,E8,E10	Human Computer Interaction ENSC-304	24h	This course gives an introduction to human computer interaction including the following topics: user-centred design, usability testing, task analysis and user requirements, display design and input devices.	Simon Fraser Univ	Engineering	Darvill	HCI by Preece

CHECKLIST FOR ENSURING A COMPLETE CCPE APPLICATION

This checklist is intended to help you to meet all the requirements for your application to be accepted for consideration. No application will be accepted for consideration until it complies with all the following content requirements. Please read through the checklist thoroughly so that you understand what you have to provide the CCCPE.

1. GENERAL (All Candidates)

- Have you completed all parts of the application form and provided all of the required information?
- Have you enclosed a cheque or money order payable to CCCPE (\$347.75 for CCPE applicants; \$53.50 for Associate Ergonomist applicants)?
- Have you prepared **TWO (2)** copies of your entire application and all appended material in 3-ring binder form? Please indicate if you would like one copy of your application returned to you.
- Have you provided a summary page at the beginning of each binder outlining your qualifications for certification?
- Have you tabbed each of the sections: i.e., with tabbed dividers for education, professional experience (including your CV), and work products?
- Have you provided a Curriculum Vitae showing education, employment history, and publications/presentations separated into peer reviewed and non-peer reviewed publications and conference papers?

2. EDUCATION (All Candidates)**2A. Full Members**

- Have you provided academic transcripts for all ergonomic and related courses?

2B. Holders of BCPE

- Have you provided evidence of BCPE certification? (copy of certificate or letter)

2C. Mature Candidates

- Have you provided details of your education background including transcripts?

2D. All Other Candidates

- Have you provided academic transcripts for all ergonomic and related courses detailed in the *Education Course Logs*?
- Have you completed both *Education Course Logs* (i.e., *Education Course Hours Log* and *Education Course Description Log*)?

3. PROFESSIONAL EXPERIENCE (CCPE applicants only)

Please complete section 3A for All Candidates and one of sections 3B, 3C or 3D, as appropriate.

3A. All Candidates

- Have you completed the *Work Products Log*?
- Have you marked the relevant pages of each work product with the number of the appropriate competency for each competency demonstrated within your *Work Products Log*?
- Have you included work products that span the time frame that you are claiming for Professional Experience?
- Have you included work products that demonstrate your breadth of ergonomics knowledge (e.g., physical, cognitive, etc.)?
- For work product(s) submitted where any information is confidential, did you obtain the employer's or the client's permission? Where this is not possible, did you blank out all references to the company or client name, etc.?
- Have you provided testimonials from the users of your ergonomic services?
- Have you completed the *Employment History Log* indicating the proportion of time spent on the direct application of ergonomics during each period? At least 50% of your time must be spent on ergonomics for any one period to be counted towards certification requirements. Have you added up your total Full-time Equivalents (FTE)?

3B. Candidates with at least four years of Professional Experience, including one year of Mentored Experience

- Has your one-year full-time equivalent Mentored Experience taken place within three calendar years?
- Does your Mentored Experience, as listed in the *Employment History Log*, demonstrate at least the required competencies from each of the four major categories listed in Table 2 of the "*Information on Certification and Guidance to the Applicants*"?
- Have you provided mentor(s)' written testimonial(s) about the proficiency of your work related to Professional Experience competencies?
- Is your total full-time equivalent Professional Experience, as shown in your *Employment History Log*, four years (48 months) or more?
- Has all of your Professional Experience, as listed in the *Employment History Log* and including the one year of Mentored Experience, taken place no earlier than seven years prior to your application?
- If relevant, and as part of your employment history, did you include applied fieldwork carried out, after educational requirements have been completed, in the course of a Master's or Ph.D. program (if not credited towards educational requirements or the Mentored Experience)?

- Is the total number of pages submitted as work product that must be read by reviewers less than 100 pages? Note: We do not require 100 pages, but this is the maximum that will be read by the reviewers.

3C. Candidates with at least 5 years of Professional Experience

- Is your total full-time equivalent Professional Experience, as shown in the *Employment History Log*, five years (60 months) or more?
- Has all of your Professional Experience, as listed in the *Employment History Log*, taken place no earlier than 10 years prior to your application?
- If relevant, and as part of your employment history, did you include applied fieldwork carried out, after educational requirements have been completed, in the course of a Master's or Ph.D. program (if not credited towards educational requirements)?
- Is the total number of pages submitted as work product that must be read by reviewers less than 100 pages? Note: We do not require 100 pages, but this is the maximum that will be read by the reviewers.
- Have you included details of any relevant courses you have taught in the *Teaching Course Details Log*?

3D. Mature Candidates with at least 10 years of Professional Experience

- Is your total full-time equivalent Professional Experience, as shown in the *Employment History Log*, 10 years (120 months) or more?
- Has all of your Professional Experience, as listed in the *Employment History Log*, taken place no earlier than 20 years prior to your application?
- Is the total number of pages submitted as work product that must be read by reviewers less than 200 pages? Note: We do not require 200 pages, but this is the maximum that will be read by the reviewers.
- Have you included details of any relevant courses you have taught in the *Teaching Course Details Log*?