GeoGebra Institute Application to establish the
GeoGebra Institute of Louisiana
December 8, 2009 Louisiana, USA

The International GeoGebra Institute (IGI, http://www.geogebra.org/igi) is a central, virtual organization that works together with independent regionally-based GeoGebra Institutes. These local organizations need to apply to the International GeoGebra Institute in order to become an officially accredited GeoGebra Institute. Please submit this application form directly to IGI (igi@geogebra.org).

1 Acceptance of IGI Vision, Goals and Procedures
The applying GeoGebra Institute declares with this application that it accepts and shares the vision, goals, non-commercial nature, licensing and following procedures with the International GeoGebra Institute and its other GeoGebra Institutes.

1.1 Vision of the International GeoGebra Institute
The International GeoGebra Institute (IGI) provides free dynamic mathematics software and shares expertise in training, support and the development of materials for all students and teachers to improve mathematics, science and technology education world-wide. It nurtures and promotes collaboration between practitioners and researchers, seeking to establish self-sustaining user communities.

1.2 Mission of IGI and GeoGebra Institutes
The International GeoGebra Institute and its local GeoGebra Institutes share the following three goals:
   1. **Training and Support**: To coordinate and provide professional development opportunities and support for both pre-service and in-service teachers.
   2. **Development and Sharing**: To develop and share workshop resources and classroom materials, and to continually improve and extend the dynamic mathematics software GeoGebra.
   3. **Research and Collaboration**: To conduct and support GeoGebra-related research which focuses on the teaching and learning of mathematics in order to inform and improve training and development activities, and to promote collaboration between IGI and local GeoGebra Institutes and between international colleagues.

1.3 Non-Commercial Nature
The applying GeoGebra Institute declares that it is (part of) a non-profit organization (e.g., university, teacher education college) with only non-commercial interests. Normally, services offered by a GeoGebra institute should be free of charge for teachers and students. If there are revenues created in connection with GeoGebra (e.g., books, online materials, workshops), it is expected that this money will be used to support and sustain the goals and activities of IGI or GeoGebra Institutes.
1.4 Licensing

The applying GeoGebra Institute declares that it will share all developed materials under a Creative Commons Attribution, Non-commercial, Share Alike license (see http://creativecommons.org/licenses/by-nc-sa/3.0/) or a similar license and that it will respect the license of the GeoGebra software itself (see http://www.geogebra.org/download/license.txt). The spirit of IGI and its GeoGebra Institutes is to share materials and be open for collaboration with everyone.

1.5 Annual Activity Report

The applying GeoGebra Institute states that it will submit an annual report regarding its activities to the IGI (igi@geogebra.org). The common and stated IGI goals can be used to structure this annual report.

The International GeoGebra Institute has the right to withdraw the accreditation of a GeoGebra Institute if it is in violation of any of the aforementioned common IGI goals.

2 Structure and Activities of applying GeoGebra Institute

2.1 Structure of GeoGebra Institute

The GeoGebra Institute of Louisiana will be hosted within the Department of Educational Leadership and Counseling in the College of Education and Human Development at the University of Louisiana at Monroe (ULM) in Monroe, Louisiana (website: http://ulm.edu).

The Institute will develop media-rich tutorials and teacher materials with examples for integrating GeoGebra in standards-based math lessons. The Institute will collaborate with the College of Education, the ULM Mathematics Department, the Teaching and Learning Resource Center (TLRC) to provide Geogebra workshops to practicing teachers.

This University serves the impoverished region of the Mississippi Delta, one of the most economically depressed places in the USA. Of special note: Louisiana test scores in math are practically the lowest in the country, ranking 49 out of 50 states. Making math as visual, engaging, and interactive as possible would provide a unique way to bridge this enormous conceptual and achievement gap by using virtual manipulatives created in GeoGebra for learning key math concepts. The College of Education prepares the majority of teachers who teach in the "Delta". In other words, if there is an effect on achievement through teacher training involving Geogebra, this region would be one place to provide evidence of a significant impact.

2.2 People of GeoGebra Institute

**Michael Beutner**, Ph.D., Associate Professor, Instructional Technology
Director, Teaching and Learning Resource Center (TLRC)
Role: Chair, workshops, tutorial development, materials development, workshop sessions
beutner@ulm.edu

**Augusta Clark**, Ph.D., Associate Professor, Educational Leadership
Role: Researcher, coordination with College of Education
aclark@ulm.edu

1/28/2010
mb
Beth Smith, Instructor, Mathematics Department
Northeast Louisiana Association of Teachers of Mathematics (NELATM) founder.
Role: Workshops, training.
bsmith@ulm.edu

Kathie Smart, Instructor, Mathematics Department
Northeast Louisiana Association of Teachers of Mathematics (NELATM) founder.
Role: Workshops, training.
ksmart@ulm.edu

Michael Broome, Instructor, Mathematics Department
Northeast Louisiana Association of Teachers of Mathematics (NELATM) founder.
Role: Workshops, training.
bróome@ulm.edu

2.3 Activities and Goals of GeoGebra Institute

The goal of this Institute is to provide a forum for teachers to share ways to use and apply GeoGebra to enhance achievement in mathematics instruction. Activities will include

- a website will provide access to any developed digital materials that can support the use of GeoGebra as a learning tool in the classroom
- monthly scheduled GeoGebra workshops coordinated by the Teaching and Learning Resource Center (TLRC), the unit responsible for faculty development at the University of Louisiana at Monroe (ULM); nearly 200 workshops are conducted by the TLRC every year for faculty.
  (Website: http://ulm.edu/tlrc/)
- the ULM Mathematics Department sponsors and coordinates the Northeast Louisiana Association of Teachers of Mathematics (NELATM) annual conference for mathematics teachers throughout the region; hundreds of teachers attend. This conference will include a number of sessions for using GeoGebra.
- the annual regional technology conference, called the Northeast Louisiana Technology Fair (NLTFA), draws nearly 500 teachers. During that conference a number of GeoGebra sessions will be conducted.
- this institute will seek grant funds to support an annual 2-day GeoGebra Conference on the ULM campus.
- this institute will seek grant funds to support a series of 1-week GeoGebra summer training sessions for teachers on the ULM campus.
- this institute will seek grant funds to fund online degree courses for teachers that promote the effective use of GeoGebra in mathematics instruction.
- this institute will seek grant funds to study the impact of using an interactive tool like GeoGebra in improving mathematics proficiency.

2.4 Certification (Optional)

Eventually, this GeoGebra Institute intends to certify local GeoGebra users and trainers. The requirements and procedures for training will be established at that time when funding through proposed grants can support these efforts. Given time and support, this GeoGebra Institute would
certify all levels of certification through proposed graduate courses in Educational Technology, similar to EDIT 625, a 3-hour graduate course that "provides an overview of the process of researching, planning, designing, implementing, and evaluating multi-sensory instructional units. Hands-on class projects will be developed that result in an integrated instructional approach to teaching and learning."

The goal is to provide the means that lead to the certification of:
1. **GeoGebra Users**: Demonstrate effective use of GeoGebra in their own classrooms
2. **GeoGebra Experts**: Demonstrate the ability to create and share innovative GeoGebra teaching materials. These individuals may offer GeoGebra workshops and support other teachers in their own schools or regions.
3. **GeoGebra Trainers**: Demonstrate innovative practices and have the ability to do practitioner research and to give presentations at the regional level.
4. **GeoGebra Institute Trainers**: Highly experienced GeoGebra presenters, trainers, and researchers involved in an accredited GeoGebra Institute who provide training and support for teachers, and give presentations at the regional and international level.

After approximately one year, this GeoGebra Institute intends to develop a process of certification for users and trainers (Levels 1-3) in this region. With the completion of training of at least one GeoGebra trainer, this proposed GeoGebra Institute will develop guidelines for certification subject to approval by the IGI.

3 **Signatures**
The chair person of the applying GeoGebra Institute and a representative of its hosting institution (e.g. university, teacher education college) declare with their signatures that all information in this application is correct to their best knowledge and that they support the establishment of a GeoGebra Institute at their institution as described in this application.

**Chair person of your GeoGebra Institute**

Mike Beutner  
Associate Professor, Instructional Technology (tenured, full-time)  
University of Louisiana at Monroe

Postal Address:  
Strauss Hall 332  
CEHD, University of Louisiana at Monroe  
Monroe, Louisiana 71209 USA

Email: beutner@ulm.edu  
Telephone: 318.342-3142

Signature: [Signature]

Date: Dec 8, 2009

**Representative of hosting institution of your GeoGebra Institute**
Dr. Sandra Lemoine  
Dean, College of Education and Human Development  
University of Louisiana at Monroe

Postal Address:  
Strauss Hall 255  
CEHD, University of Louisiana at Monroe  
Monroe, Louisiana 71209 USA

Email: slemoine@ulm.edu  
Telephone: 318-342-1235

Signature:   
Date: 12-7-09

Dr. Stephen Richters  
Provost and Vice President for Academic Affairs  
University of Louisiana at Monroe  
Monroe, Louisiana 71209 USA

Postal Address:  
Office of the Provost  
700 University Avenue  
University Library  
6th Floor, Room 640  
Monroe, Louisiana 71209 USA  
(318) 342-1025

Signature:   
Date: 12/15/09

Application approved by
Markus Hohenwarter (markus@geogebra.org)  
President of the International GeoGebra Institute (http://www.geogebra.org/igi/)

Signature:   
Date: February 15, 2010