

# RESEARCH THEMES



**Master of Eductaion In Chemistry**  
**Graduate School**  
**Universitas Negeri Yogyakarta**  
**2016**



**MINISTRY OF RESEARCH, TECHNOLOGY, AND HIGHER EDUCATION  
UNIVERSITAS NEGERI YOGYAKARTA  
GRADUATE SCHOOL**

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**RESEARCH THEMES  
OF THE MASTER AND THE DOCTOR OF EDUCATION IN CHEMISTRY**

Five superior fields of research in the education field of the Graduate School, Universitas Negeri Yogyakarta are as follows.

1. **Characteristic and competitive education.** Graduate School develops the design of education with national character based on religious values, national culture that is globally competitive, and peace.
2. **Fair Education.** Graduate School develops systems and models of education that are able to provide opportunities for all citizens to obtain an emancipatory and participatory education.
3. **Education for sustainable development.** In addition, Graduate School must also develop educational models that guarantee the preservation of the biological, physical, social and cultural environment.
4. **Local wisdom, locality, and indogenous knowledge.** Graduate School also need to conserve, actualize and develop the cultural, social and natural capital of the archipelago to face global challenges in the fields of politics, economics and socio-culture to achieve justice and social and economic health of the Indonesian people.
5. **Global village, informational and communication community, and borderless community.** Graduate School need to develop education in facing the challenges of the era of information and communication technology to be able to adapt to local, regional, and global communities without a partition.

<b>Research Themes in Graduate School, Universitas Negeri Yogyakarta</b>	<b>Research Themes in the Master and the Doctor of Education in Chemistry</b>
<b>Characteristic and competitive education</b>	Development of character-based chemical learning research
<b>Fair Education</b>	Innovative research and development projects on chemical education with special emphasis on the learning process to influence the professional development of teachers throughout Indonesia and national education policies
<b>Education for sustainable development</b>	<ul style="list-style-type: none"> <li>• Development of chemical education research based on the development of the natural environment to ensure environmental sustainability</li> <li>• Research program to support education reform in Indonesia with a deep and continuous improvement in learning skills, creativity and communication for high school/vocational students at all levels of ability</li> </ul>
<b>Local wisdom, locality, and indigenous knowledge</b>	<ul style="list-style-type: none"> <li>• Development of local wisdom-based chemical education research related to the knowledge of chemistry curriculum, knowledge of students' understanding, teacher efficacy, knowledge of instructional strategies for teaching chemistry, knowledge of assessment of chemistry learning, and orientation to teaching chemistry.</li> <li>• Increased Learning of Students in Chemistry in Indonesia through a network between Graduate School UNY and various sectors in the region</li> <li>• Development of chemical education research based on Etnochemistry and Chemo Entrepreneurship</li> </ul>

<b>Global village, informational and communication community, and borderless community</b>	Development of multimedia research in learning chemistry based on Technology and Information
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