

Overview

We are continuing our high science modeling academies again this coming summer. We expect to hold academies in northern, southern and central Indiana during the months of June and July.

We welcome teachers from high schools both inside and outside Indiana who are interested in the nationally-established High School Modeling Curriculum. The instructional method and physics and chemistry curricula are described in detail at the American Modeling Teachers' website <http://modelinginstruction.org/>. Brief descriptions of each of the workshops can be found below). Funding has been obtained to pay small stipends to attending teachers (these will be \$100 per day).

There is a **\$600 registration fee per workshop week**; however, this fee has been reduced to \$25 for teachers who teach at Indiana (private or public) schools. Teachers who complete the workshop will be awarded *Certificates of Attendance and Completion*, and can receive University of Notre Dame graduate credit (up to 2 credits/week at a cost of \$400/credit).

More information about the Indiana modeling curricula in Biology and ICP (Integrated Chemistry and Physics) can be found at the NISMEC website (www.nd.edu/~nismec/nismec11.htm).

The **application form** and the **expected academy schedules** are listed at the following websites

The NISMEC website: www.nd.edu/~nismec/nismec11.htm

The Indiana Learning Connection website: <https://learningconnection.doe.in.gov/>

The Indiana Chemistry Modelers Website: www.indianachemmod.com

Special notes:

- (a) Most academies have a maximum enrollment of 12 teachers; hence you may want to register as early as possible; *[this limitation is due to the reduced funding available this year]*
- (b) funding for the NW Indiana academies is assured; partial funding is also available for the other academies, and we are confident that enough of our further funding requests will allow all the academies to take place.
- (c) An academy may be cancelled if there is not a sufficient enrollment or our funding is not sufficient; we think both factors are unlikely.
- (d) Unfortunately, we have no funding for lodging at the academies: if you can come and need lodging support, we urge you to request such funding from your own school district administration, or other local sources. We can provide a letter to help you secure the funding. Note that we are greatly reducing registration fees and providing stipends for all participating Indiana teachers.
- (e) Also unfortunately, we cannot pay the credit fees of the University of Notre Dame. Teachers can register at the University for credit - the cost is \$400 per credit, up to 3 credits for 3 workshop weeks. It is OK to register for zero credits for a cost of zero dollars. This is true for all the workshops.
- (f) We will provide a set of 6 "whiteboards" (each 32 inches by 24 inches) to each participating teacher.
- (g) **Each teacher will receive a stipend of \$100 per day. [The Evansville workshop stipend will be \$120/day – as required by the Evansville/Vanderburgh Community School Corp.]**

The "Video Introduction to Modeling Program"

Only 1 or 2 weeks of professional development is too short a time to ensure the effective application of modeling and how to enhance its immediate use in the classrooms. Hence, we are proposing to include some pre- and/or post- online discussions of the modeling curriculum, and views of participants' classrooms.

We are requesting that all registered teachers will

After each summer academy:

- (i) provide brief videos and photos of students learning in their modeling classrooms.
- (ii) view and comment on videos and photos of the modeling classrooms of the other participating

teachers.

We will make this additional on-line reporting as constructive and as brief and non-labor-intensive as possible; the uploading and observation site will be a google drive site (free) or other similar site. Participating teachers will need to confirm with their administrators that such photography of students is permissible. We will ensure that all data is only shared with the teachers and instructors of the program - it will be password protected and not available to others, in particular your own administrators.

Details of the workshops taking place at the three Indiana areas (north, south and central) follow:

1 - North-West Indiana

- **Academy A** - Introduction to modeling (Biology & ICP) - 5 days - 13-17 July
- **Academy B** - The Indiana Biology Modeling Curriculum - 5 days - 20-24 July

Workshop A will be a general introduction to modeling and include lesson examples from ICP, and biology.

Workshop B will focus on using example lessons from the Indiana biology modeling curriculum

- Teachers without modeling experience should attend workshop A,
- Teachers with modeling or similar experience may just attend workshop B.
- All participating teachers are expected to take part in the “*video introduction to modeling program*” described above.
- Both workshops will take place at Merrillville High School, 276 E 86th Place, Merrillville Indiana 46323

[Host teacher/instructors: Patti Robison, Lynda Rose, Dawn Slein]. The school is just west of the I-65 expressway (can be seen from I-65), midway between the Merrillville (exit 253) and Crown Point (exit 255) exits of I-65.

- Workshops will begin at 8:30 am, and end at 3:30 pm each day; a light breakfast; am and pm snacks and refreshments will be provided. Participants will be responsible for their own lunch (there are several restaurants nearby).

2 - Central Indiana - Indianapolis area

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| - Academy D - University High School of Indiana – Carmel | 22-26 June | Chemistry 2/3 |
| - Academy E - Guerin Catholic High School, Noblesville | 13-17 July | Physics 2/3 |

- Teachers with at least one year of modeling experience should choose the appropriate workshop.
- All participating teachers are expected to take part in the “*video introduction to modeling program*” described above.
- In the hands-on tradition of the Modeling instructional method, the schedule of **each academy D and E will be driven by the participating teachers**: each day, one teacher (or a group of two teachers) will lead a discussion/analysis of a specific part of the modeling curriculum, incorporating their experiences in the classroom. We will try to identify these topics before the workshop begins, so that any necessary equipment for hands-on experiments will be available. In your application, please indicate a topic (or two) that you would like to include in your workshop.
- Academy D will take place at The University High School of Indiana, at 2825 W 116th St, Carmel, IN 46032, just north (west side) of the I-465 beltway around Indy [host teacher/instructor - Erica Posthuma-Adams].
- Academy E will take place at The Guerin Catholic High School, Noblesville, at 15300 N Gray Rd, Noblesville, IN 46062 just north (east side) of the I-465 beltway around Indy [host teacher/instructor

Hugh Ross].

- Workshops will begin at 8:30 am, and end at 3:30 pm each day; a light breakfast; am and pm snacks and refreshments will be provided. Participants will be responsible for their own lunch (there are several restaurants nearby).

3 - Southern Indiana, Evansville area

Academy C – 6-10 and 13-17 July: Development of the Indiana ESS Modeling curriculum will take place at North High School (15331 Highway 41 North, Evansville, IN 47725) or Harrison High School (211 Fielding Rd. Evansville, IN 47715) of the Evansville Vanderburgh School Corporation [host teacher/instructors - Michael Kelley, Dan Walsh].

Approximately 10 teachers will develop modules of a modeling curriculum for earth science. Registrees should have experience in modeling and/or teaching a hands-on earth science curriculum. These modules will be tested during the coming school year, with a follow up workshop in the summer of 2016 for further development of the curriculum.

- The workshop will begin at 8:30 am, and end at 3:30 pm each day; lunch, a light breakfast; am and pm snacks and refreshments will be provided.
