US 3D Animation School Survey

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Introduction

In this document we present the results of a survey of faculty members teaching in programs where course in 3D Computer Graphics and Animation are offered in the United States. The survey consists of 30 questions and was conducted on-line through Surveymonkey.com. Replies were solicited at SIGGRAPH 2010, via the website of the ACM SIGGRAPH Education Committee and the associated mailing list 'cg-educators@siggraph.org', and directly through e-mails. The survey was open from August 2010 through to January 2011.

Results

The survey was started with 105 respondents, tapering off to 77 who finished the entire survey. Respondents were allowed to skip questions.

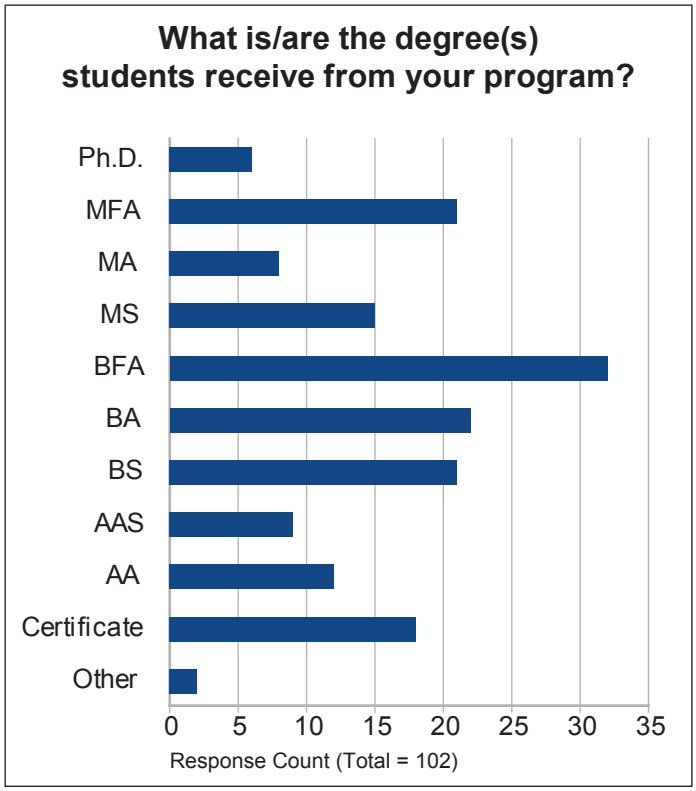
Without any further analysis, this document presents the result of the survey as graphs with the response count or percentage for each available option in the multiple choice questions. When under 'other' a specific answer was given a number of times, it has been included in the graphs as separate category with those answers not being counted towards the general 'other' category. The survey did contain a few open questions, for these similar answers have been grouped together in order for them to be tallied and presented in the form of a graph.

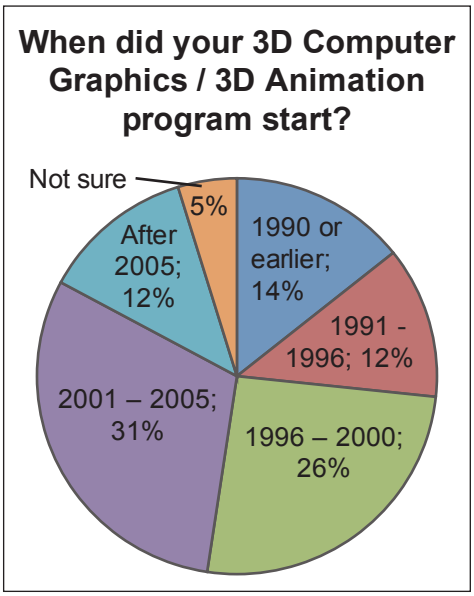
A similar survey was conducted earlier in Japan. A comparison between the two surveys with more in depth analysis will be presented at SIGGRAPH ASIA 2011 under the title "3D Animation Education in the US and Japan: Different Environments, Similar Issues". The abstract for this sketch will be available through the ACM digital library.

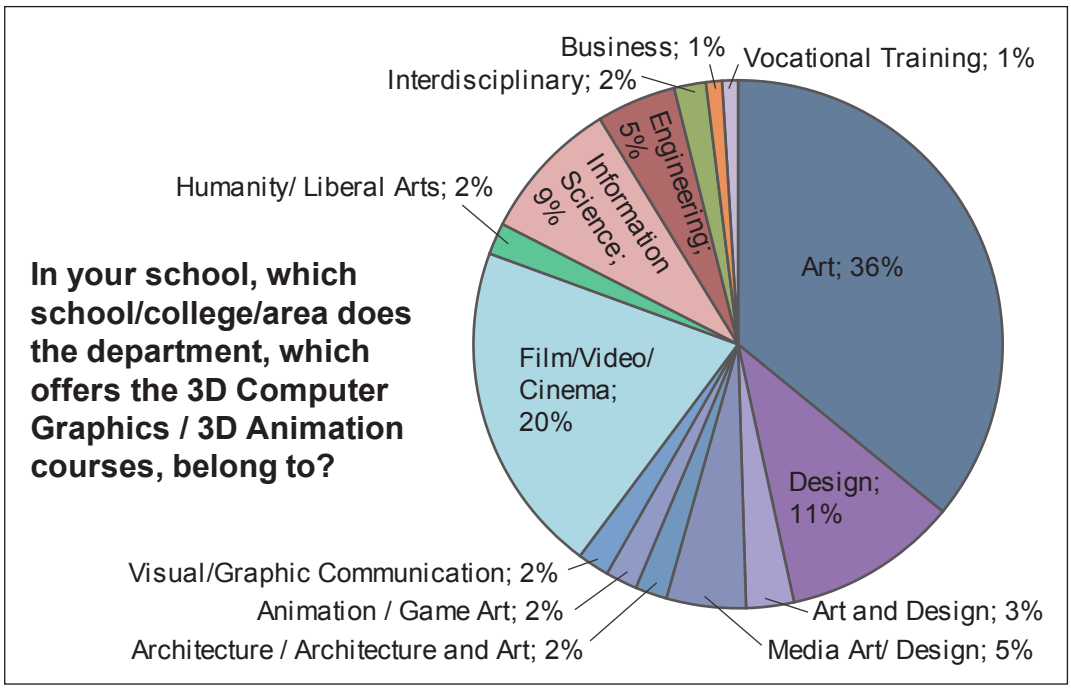
Acknowledgment

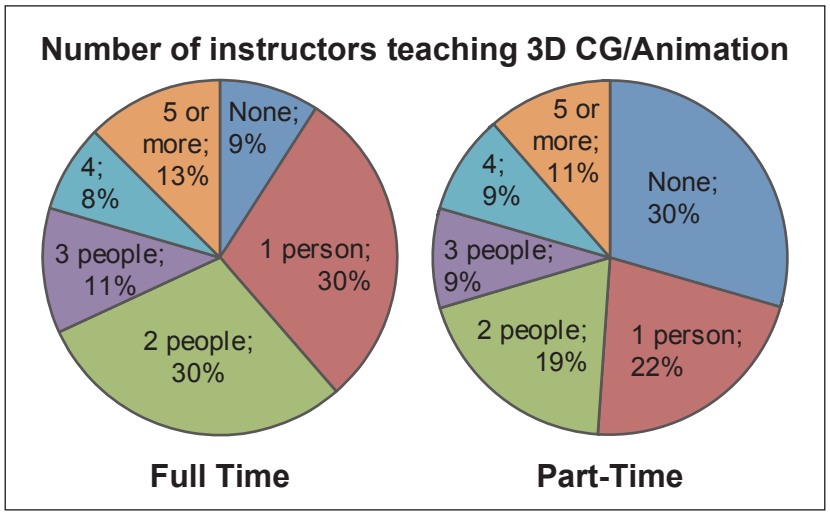
First we would like thank the faculty members who took time and responded to the surveys. Without their cooperation, this research were not possible.
We would also like to thank the Computer Graphic Arts Society (CG-Arts) which conducted the earlier survey in Japan, and Marc Barr and the ACM SIGGRAPH Education Committee for allowing us to solicit responses through their communication channels.

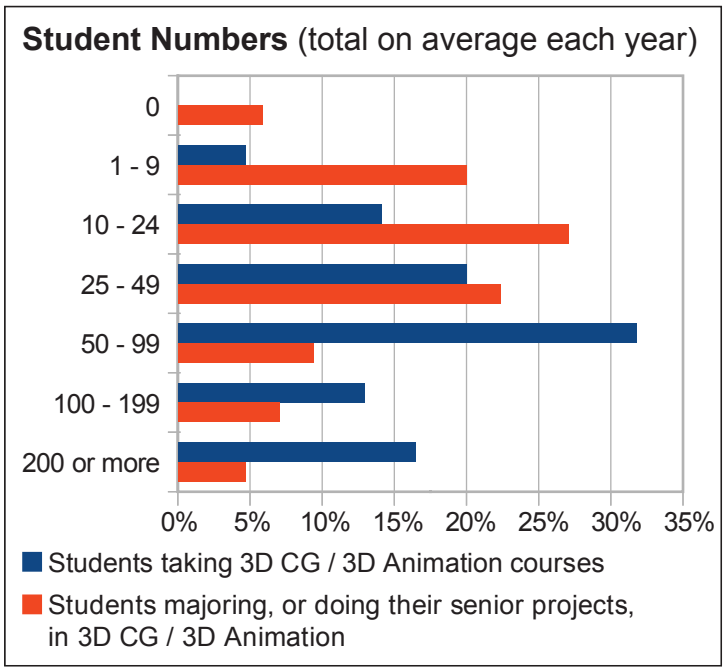
Outline of School

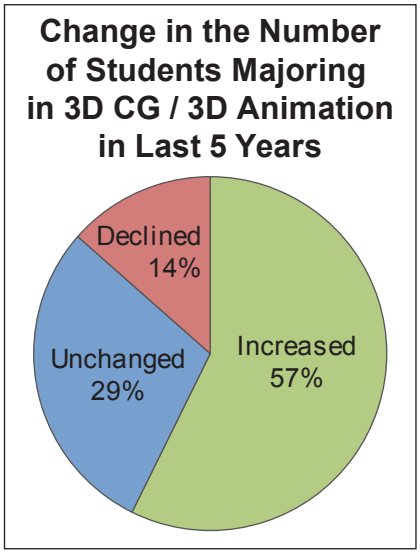


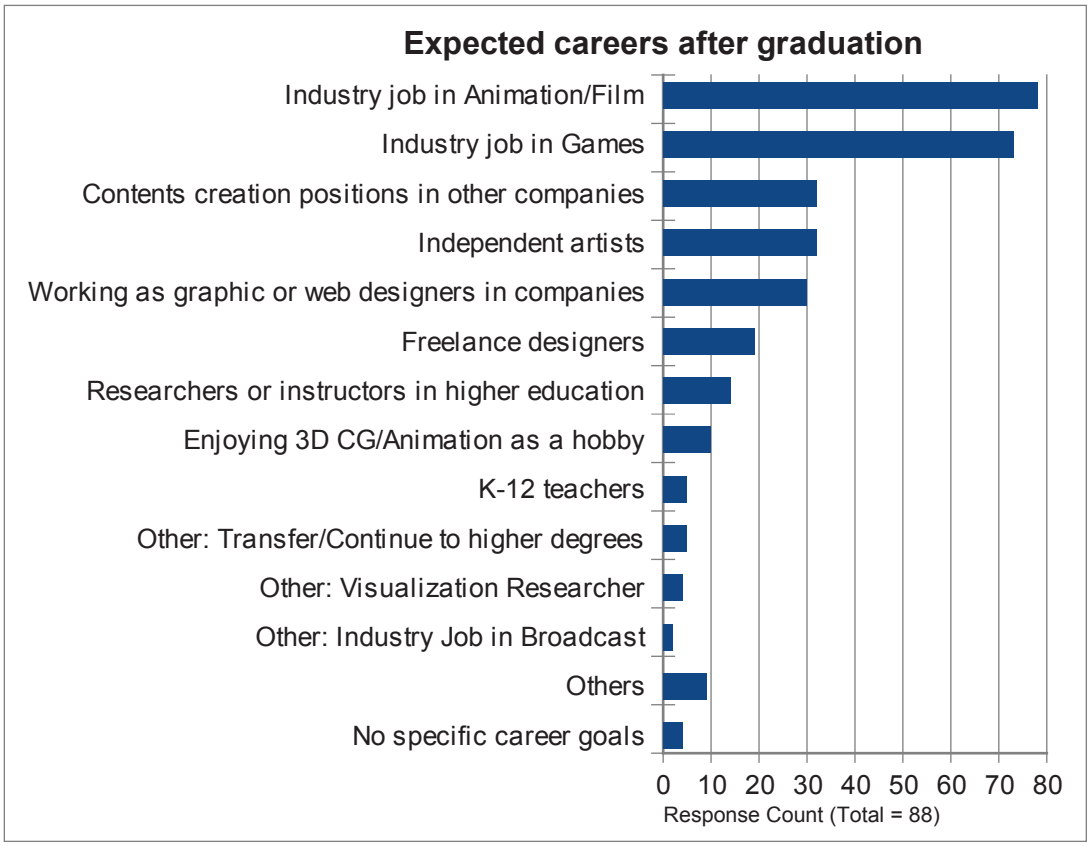


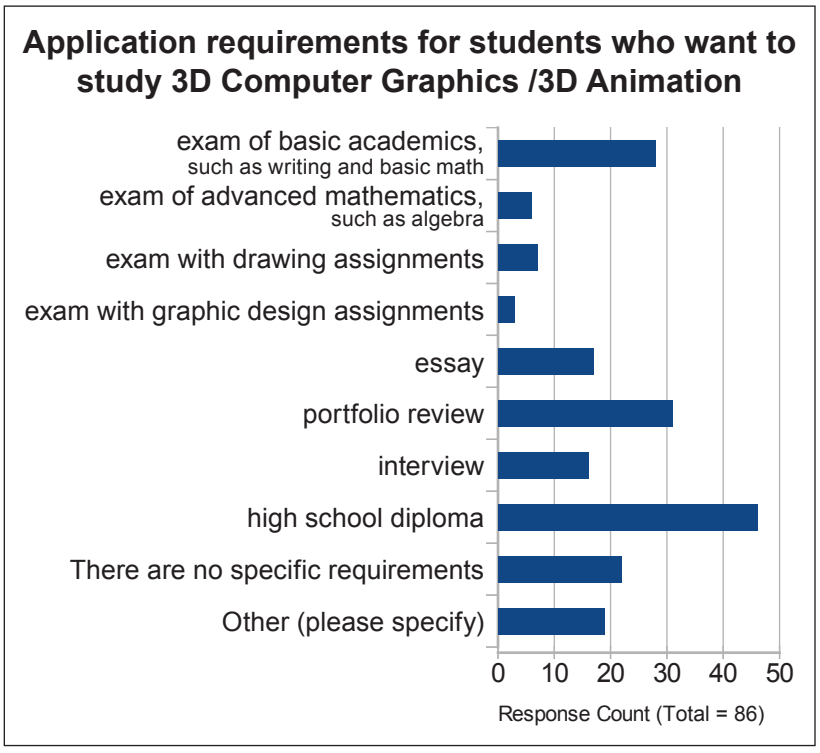


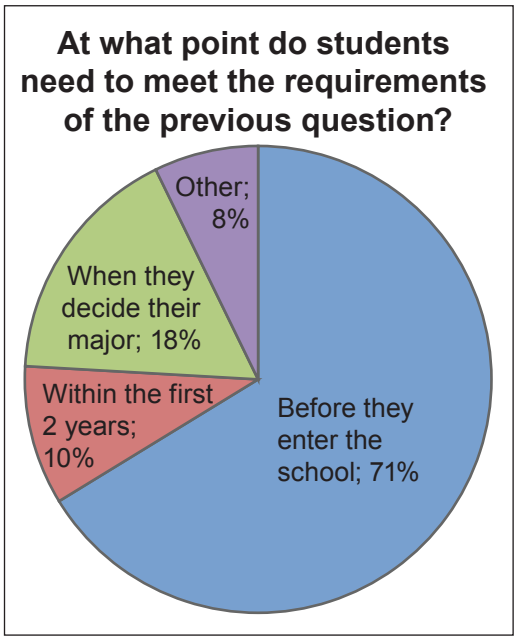

Number of instructors teaching 3D CG/Animation
None; 9%
1 person; 30%
2 people; 30%
3 people; 11%
4; 8%
5 or more; 13%
Full Time
None; 30%
1 person; 22%
2 people; 19%
3 people; 9%
4; 9%
5 or more; 11%
Part-Time


Student Numbers (total on average each year)
0
1 - 9
10 - 24
25 - 49
50 - 99
100 - 199
200 or more
0%
5%
10%
15%
20%
25%
30%
35%
Students taking 3D CG / 3D Animation courses
Students majoring, or doing their senior projects, in 3D CG / 3D Animation


Change in the Number of Students Majoring in 3D CG / 3D Animation in Last 5 Years
Declined 14%
Increased 57%
Unchanged 29%

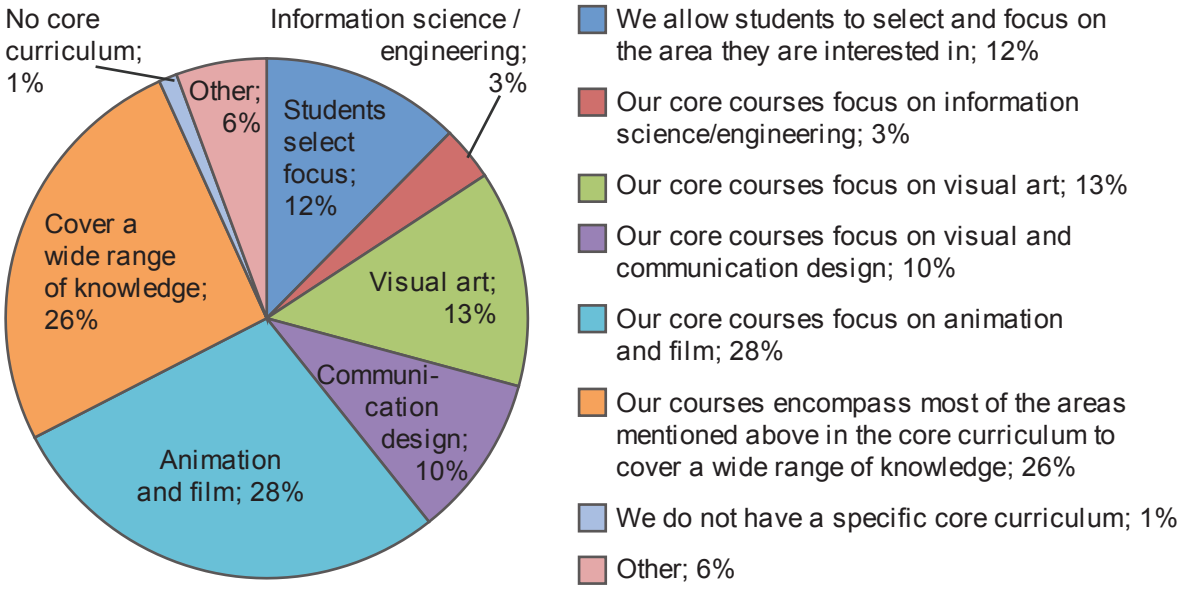

Expected careers after graduation
Industry job in Animation/Film
Industry job in Games
Contents creation positions in other companies
Independent artists
Working as graphic or web designers in companies
Freelance designers
Researchers or instructors in higher education
Enjoying 3D CG/Animation as a hobby
K-12 teachers
Other: Transfer/Continue to higher degrees
Other: Visualization Researcher
Other: Industry Job in Broadcast
Others
No specific career goals
0 10 20 30 40 50 60 70 80
Response Count (Total = 88)


Application requirements for students who want to study 3D Computer Graphics /3D Animation
exam of basic academics, such as writing and basic math
exam of advanced mathematics, such as algebra
exam with drawing assignments
exam with graphic design assignments
essay
portfolio review
interview
high school diploma
There are no specific requirements
Other (please specify)
0 10 20 30 40 50
Response Count (Total = 86)

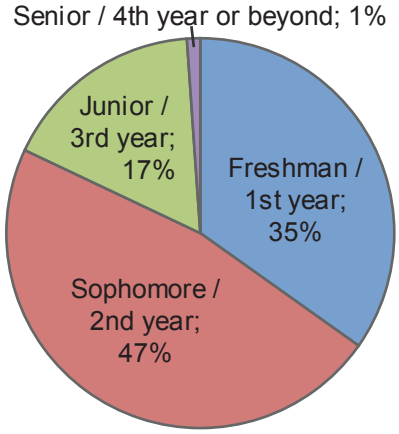

At what point do students need to meet the requirements of the previous question?
Other; 8%
When they decide their major; 18%
Within the first 2 years; 10%
Before they enter the school; 71%

Curriculum outline

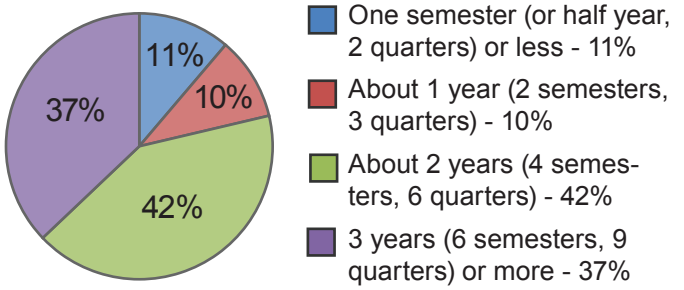
There is wide range of knowledge related to 3D CG/ Animation. How does your curriculum deal with this issue?

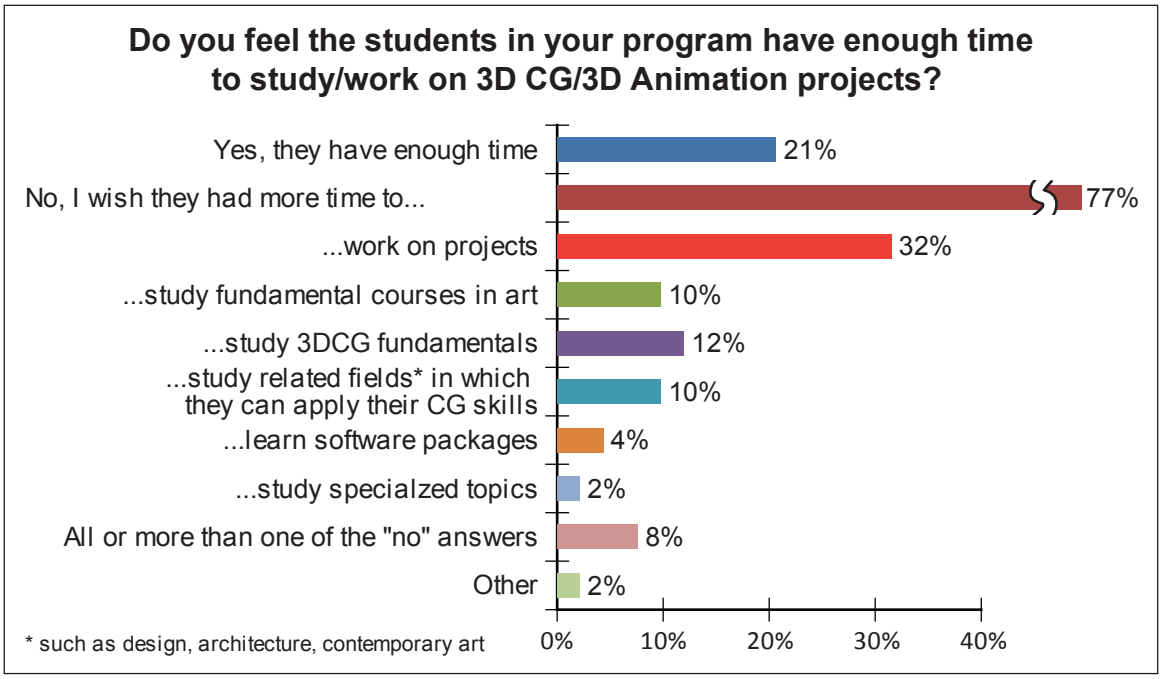


When do students start 3D CG/Animation courses?



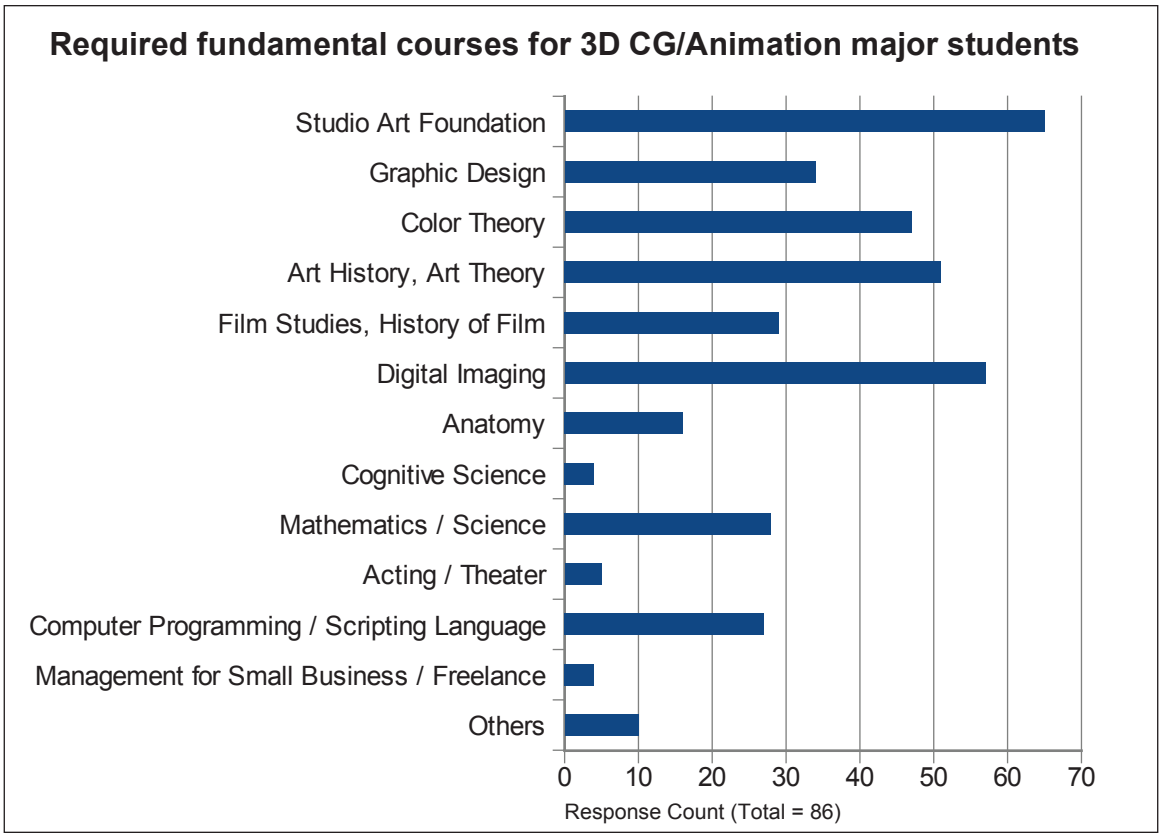
Average length of the time students study and/or create works in 3D CG/3D Animation.





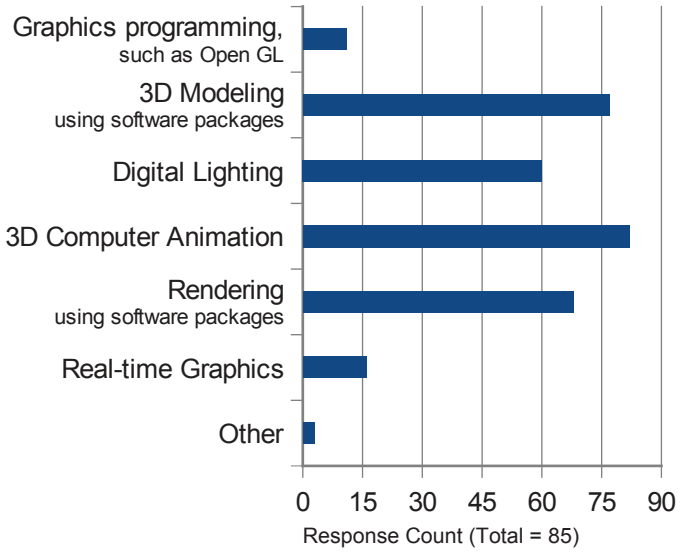
Fundamental Courses

"Required courses" include the required courses for your program and/or strongly recommended courses, which majorities of students in your program actually take.

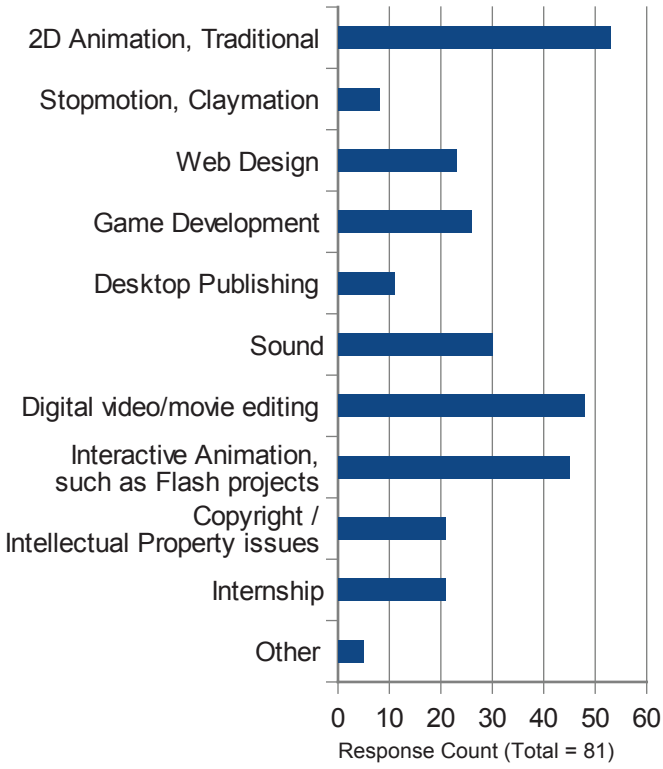


Advanced Courses

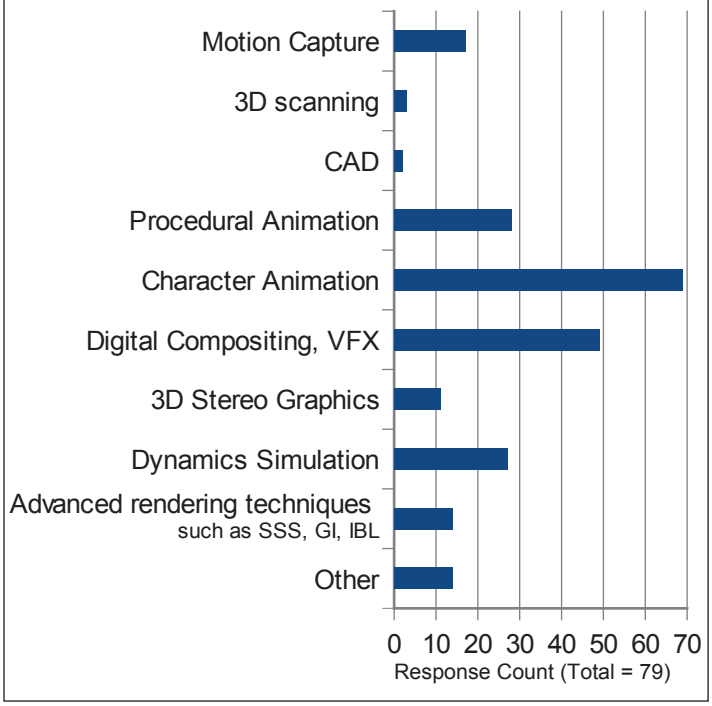
Required fundamental topics for 3D CG/Animation majors



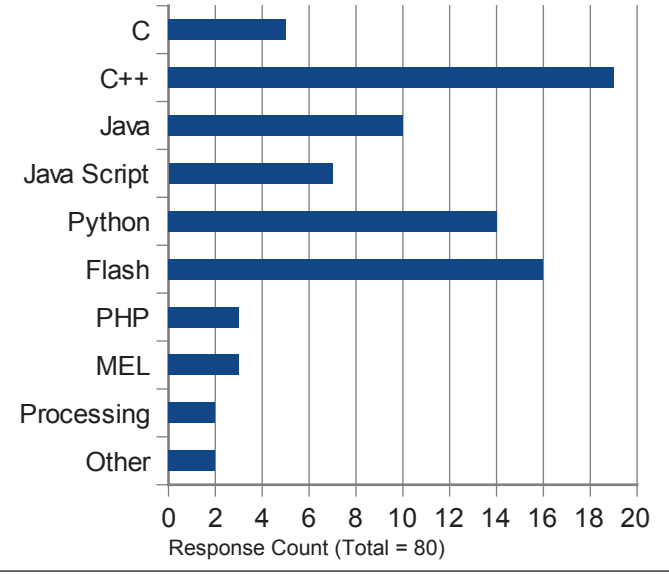
Required courses/topics in related fields for 3D CG/Animation majors

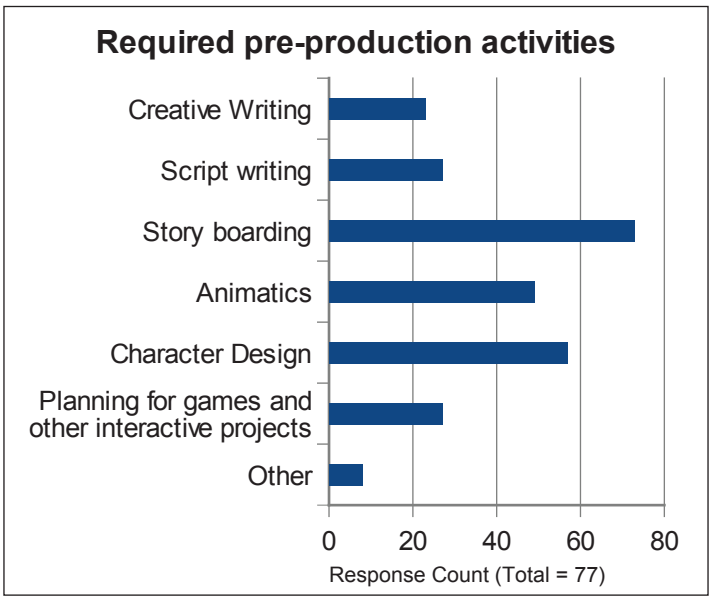


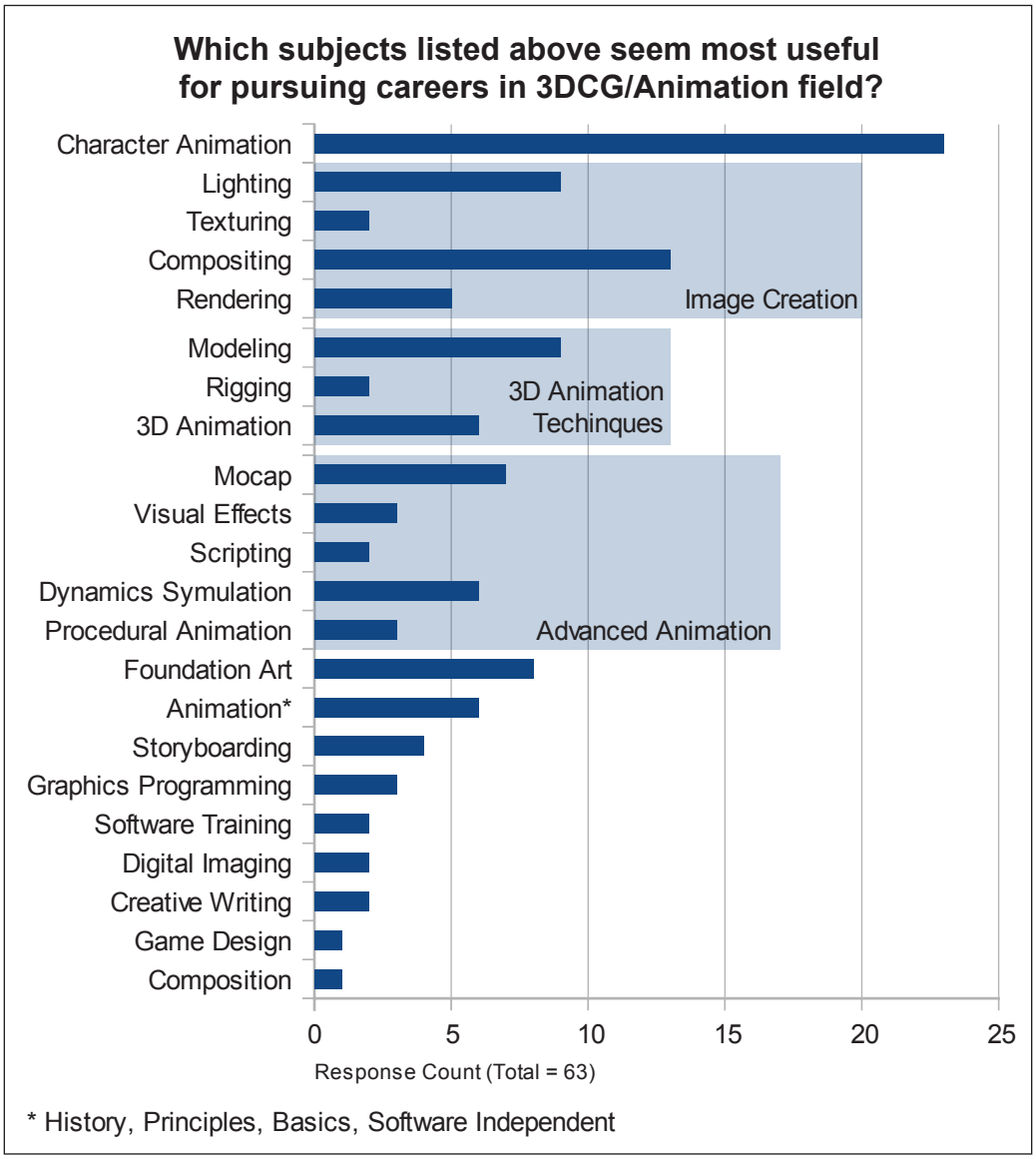
Required advanced topics for 3D CG/Animation majors



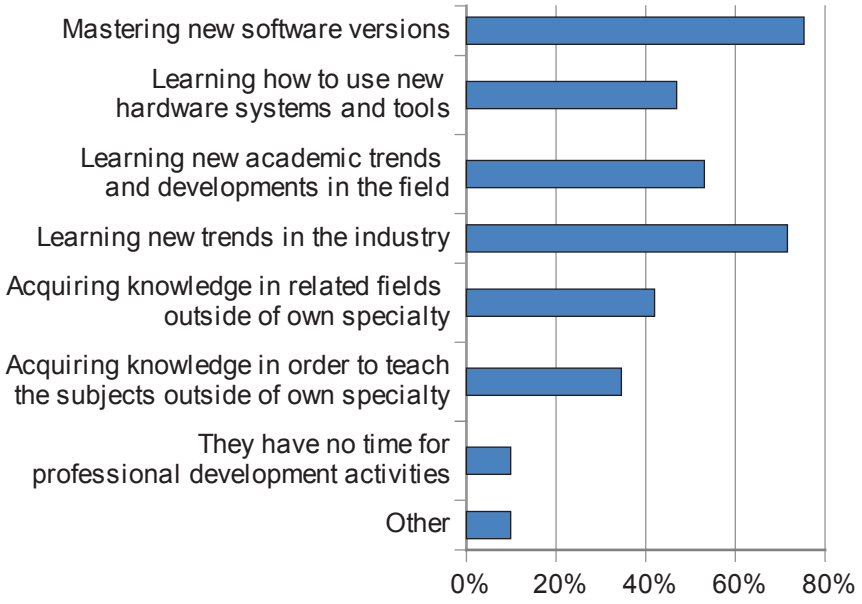
Programming/scripting languages



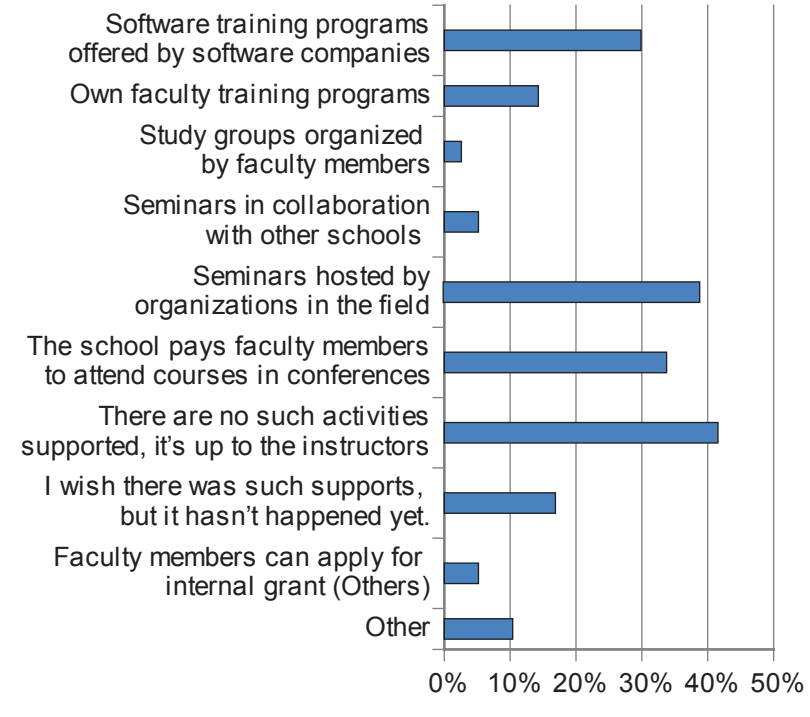

Required pre-production activities
Creative Writing
Script writing
Story boarding
Animatics
Character Design
Planning for games and other interactive projects
Other
0
20
40
60
80
Response Count (Total = 77)


Which subjects listed above seem most useful for pursuing careers in 3DCG/Animation field?
Character Animation
Lighting
Texturing
Compositing
Rendering
Image Creation
Modeling
Rigging
3D Animation
3D Animation Techinques
Mocap
Visual Effects
Scripting
Dynamics Symulation
Procedural Animation
Advanced Animation
Foundation Art
Animation*
Storyboarding
Graphics Programming
Software Training
Digital Imaging
Creative Writing
Game Design
Composition
0
5
10
15
20
25
Response Count (Total = 63)
* History, Principles, Basics, Software Independent

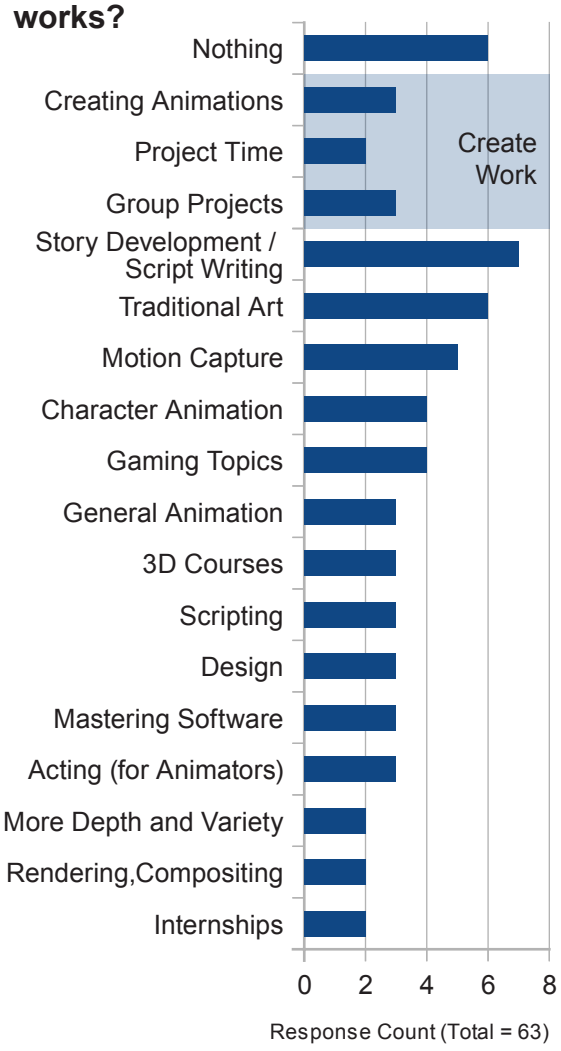
Professional development activities that instructors teaching 3D CG/3D animation spend time outside of teaching, research and/or creative activities.



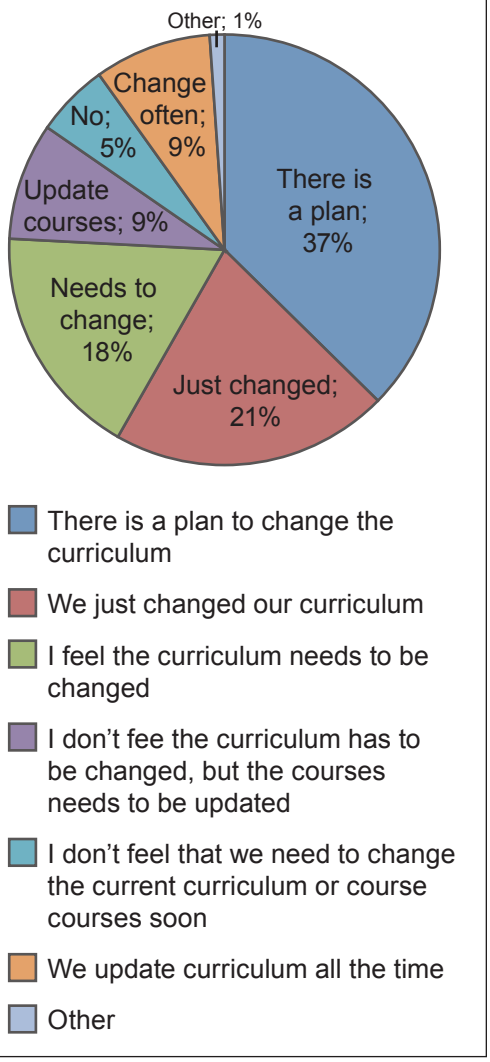
Professional development activities listed above that are hosted or financially supported by the school

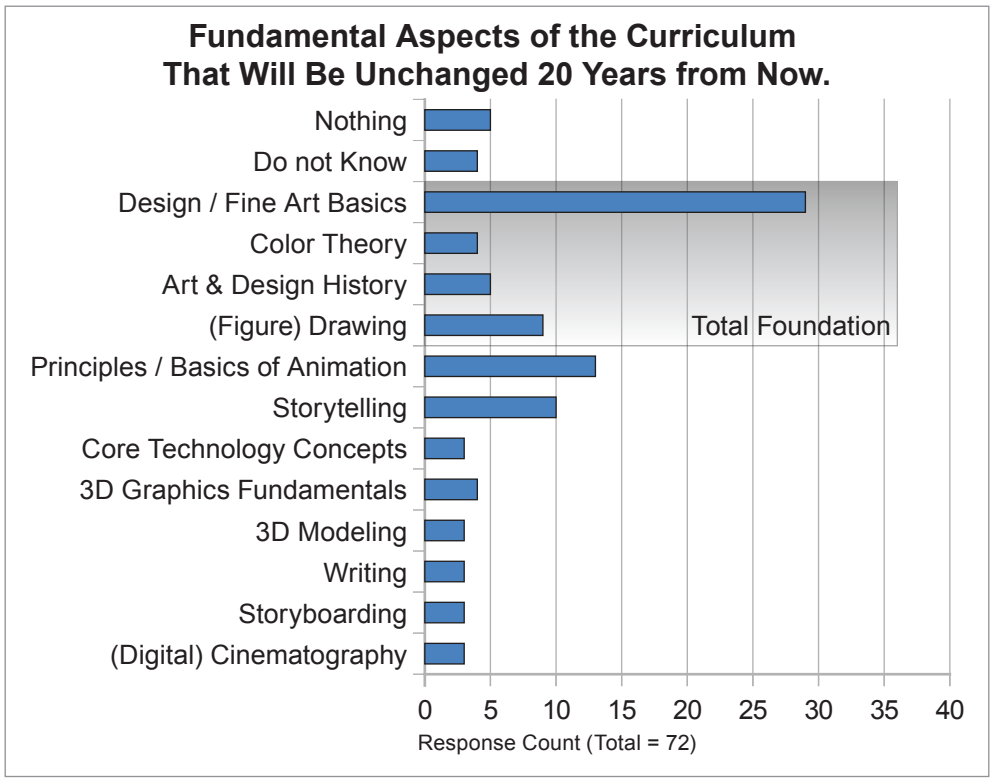
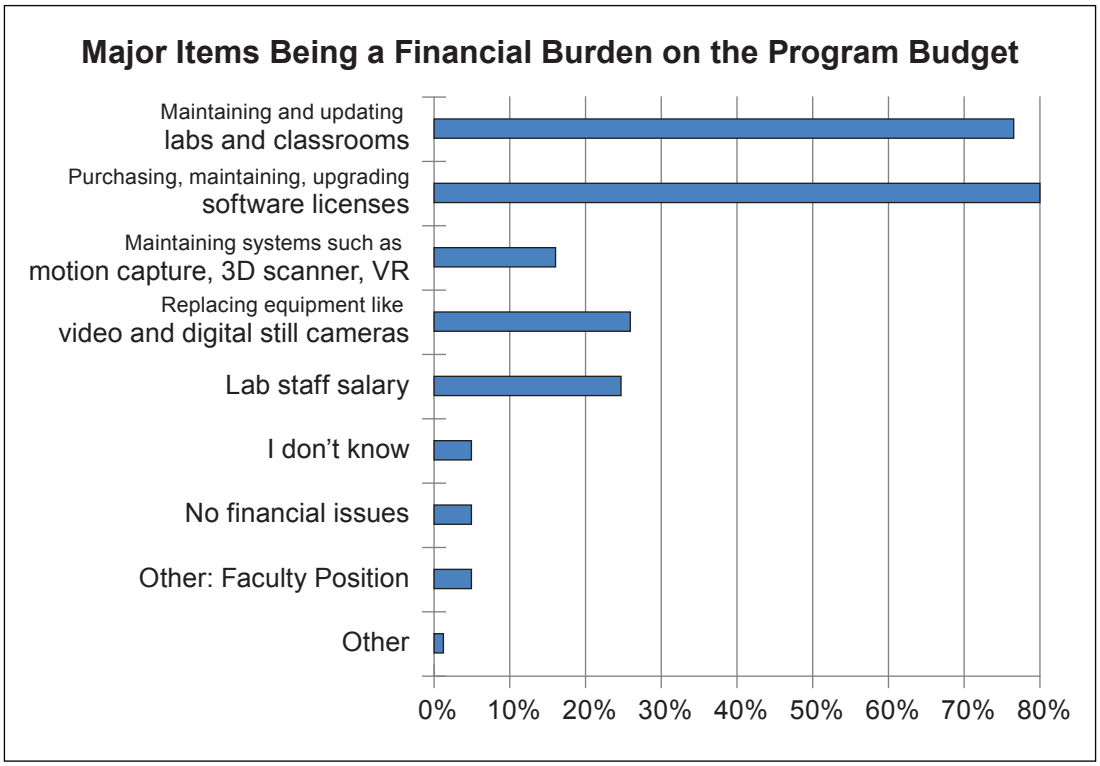
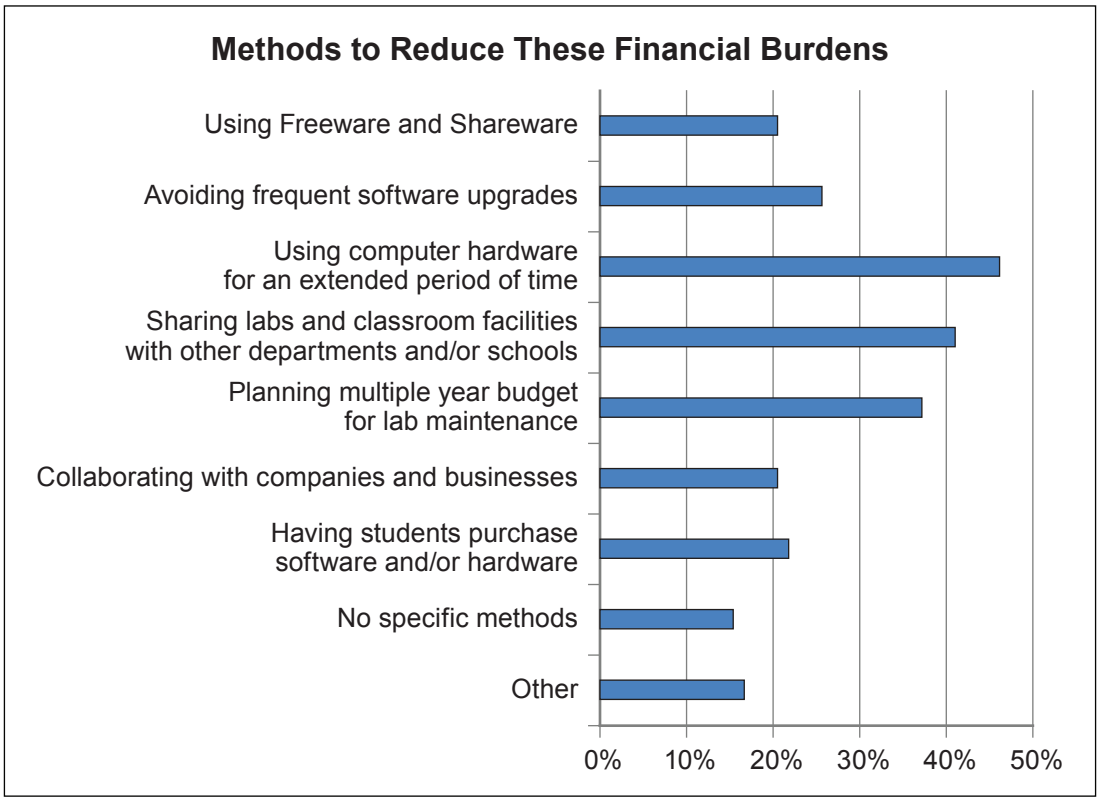


In the current curriculum, what kind of subjects you feel necessary to be added or increased, in order to help students to create higher quality works?



Do You Feel the Current Curriculum Needs to Be Changed in the Next 5 Years?




Fundamental Aspects of the Curriculum
That Will Be Unchanged 20 Years from Now.
Nothing
Do not Know
Design / Fine Art Basics
Color Theory
Art & Design History
(Figure) Drawing
Total Foundation
Principles / Basics of Animation
Storytelling
Core Technology Concepts
3D Graphics Fundamentals
3D Modeling
Writing
Storyboarding
(Digital) Cinematography
0
5
10
15
20
25
30
35
40
Response Count (Total = 72)

Sustainability of curriculum